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# CBRNE Newsletter Terrorism

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## Editorial

*Dear Colleagues,*

Year 2011 was marked with a constant increase of our reading audience! Newsletter is now reaching more than 60 countries around the globe. Following a six months poll amongst our readers we decided to go bimonthly. Starting from current issue, the CBRNE-Terrorism Newsletter will be uploaded every two months. Next issue will be ready by the end of April 2012. In addition we added a Blog into our Newsletter's website in order to cover news on daily basis. There are so many things happening around the world that need special attention and we think that this was a proper way to address the continuous information of our audience involved in CBRNE and counter-terrorism operations.

Year 2012 would be a very interesting year since the London 2012 Olympiad is just a few months away. Mega sport events were always an attractive target for international terrorists and Summer Olympics will be no exception. We sincerely hope that it will be a peaceful Olympiad and we are sure that British security forces and agencies will do their best to provide a safe environment for athletes, visitors and global spectators. Our only concern has to do with the preparedness of medical/hospital community to deal with mass casualties deriving from a real CBRNE terrorist incident in megapolis environment. Although we are sure that London's Ambulance Service is well prepared and trained (HART teams) there are some doubts about acute care hospitals' preparedness.

In this issue we are still short out of advertising – in that respect we reduced prices even more and if this does not work we will continue to incorporate ads from other sources as part of your information process. We stress once more that ads' money is not for profit but for expanding our activities in the area of CBRNE/CT information – i.e. conferences, visits, participation in forums etc.

It is important to realize that CBRNE-CT issues are kind of “passion” for us and not a main stream profession for profit. Even if the ads will not work out well, we will continue to edit the Newsletter even in its previous amateuristic format because it is the content that matters not how the whole thing looks like! It is self-evident that your remarks, comments and suggestions are more than welcomed and will be highly appreciated and incorporated in future issues!

Enjoy the CBRNE-Terrorism Newsletter and if you really like it, please feel free to pass it over to colleagues in your networks!

*The Editor*



BG(ret) Ioannis Galatas, MD, MA, MC





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### 2011: the year in review

Source: <http://www.guardian.co.uk/uk/2011/dec/30/2011-end-of-year-review>



Firefighters tackle a blaze in Tottenham, north London, as trouble flared on 7 August following the shooting by police of Mark Duggan. Photograph: Lewis Whyld/PA

It wasn't the sight of a double-decker bus ablaze on Tottenham High Road that stunned Britain as it awoke one morning in August. It wasn't even the historic building smouldering in ruins, or the trail of burnt-out police cars. What chilled the country turning on the news that summer Sunday was footage of a young woman calmly trying on trainers before looting them while police stood by helplessly and watched.

As night fell, violence spread across the capital as mobs of masked youths hurled missiles at riot police and ransacked shops, making off with trolley-loads of TVs, clothes, jewellery, groceries, even nappies. In growing disbelief, the country watched looting break out in broad daylight; shop owners across London frantically boarded up and fled, but by nightfall Croydon looked like a scene from the Blitz and the Sony factory in Enfield was a blazing inferno. Fire crews stood impotent in the face of jeering mobs, journalists were beaten, press cameras stolen, even leafy Ealing and yuppie Clapham weren't safe as looters rampaged through department stores. As the contagion spread to Bristol, Birmingham, Manchester and Liverpool, cities that only days earlier had looked perfectly normal teetered on the brink of anarchy.

It took four days to restore order, but the legacy of those days will dominate conversation for years to come. Chaotic night courts hastily convened to process the first arrests, which have now exceeded 3,000, saw judges handing down sentences almost as shocking as the riots themselves. One looter was convicted of stealing a lick of ice-cream; he'd walked into a patisserie, helped himself to a scoop, but didn't like the flavour so handed the cone to a woman – and was jailed for 16 months. Another got six months for stealing bottled water worth £3.50. Court reports began to read like scenes from a Victorian novel – though deportation to Australia would probably have been too good for the "feral rats" in the eyes of the tabloids, whose front pages screamed Shop A Looter!

Police expect arrests to reach 12,000 by next summer, as officers scan through 200,000 hours of CCTV footage, but the debate about what happened, and why, will go on even longer.

"Sheer criminality", denounced the home secretary, displaying an interesting grasp of nuance. "Parts of our society," David Cameron declared, "are not broken but sick" – an unfortunate choice of words, given that in street slang used by the very parts he was talking about, "sick" is the highest form of compliment. Others blamed the police, whose



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fatal shooting of a father of four in Tottenham ignited the violence. Or was it down to the cuts? Gangs? Twitter? For some it was nothing more than outright greed – or, as one commentator put it, "just a form of late-night shopping where you don't have to pay".

Another pundit's dismay revealed less about the lawlessness of the rioters than the ignorance of the commentariat, when he expressed bewilderment at their unaccountable lack of concern about "promoting the global brand of London in the runup to the 2012 Olympics" – as if hoodies on Hackney estates speak of nothing but.

If there was any early political consensus, it was that the riots were "nonpolitical". For Labour this was disappointing, even embarrassing – for how could brazen theft be a legitimate protest? – while to the Tories it was proof that they couldn't be to blame. But what could be more political than a generation deprived even of political consciousness, knowing only frustrated consumerism, and believing power lies not in Downing Street but JD Sports?

"People that have got nothing," offered one looter, "wanted to show they had nothing." But from painstaking analysis, a more complex set of motivations slowly began to emerge. "I thought, wow, like, there's actually a force against the government," said another rioter. "To put the riots into perspective, I thought of it as a war between the youth and the government, police." For many who took to the streets this summer, it was a war against a political and economic system that was no longer working.

Five people lost their lives in the four days when Britain lost control. Hundreds have since lost their liberty. Livelihoods and homes were lost, the financial losses will run into hundreds of millions, and the loss of faith in each other is unquantifiable. A harbinger of global breakdown on an epic scale, the riots turned out to be just one ripple in a devastating storm that swept across the world, making 2011 a year of incalculable loss.

The young Tunisian fruit seller who set himself on fire last December could never have imagined what the flames would spark. Within a month, President Ben Ali's 24-year dictatorship was over. Weeks later, the government of Jordan had gone, too – and the Arab spring had only just begun.



The bloodied corpse of Libyan leader Muammar Gaddafi seen in an image taken from video footage, 20 October. Photograph: Esam Al-Fetori/Reuters

The Egyptians filling Cairo's Tahrir Square quickly grew into an unstoppable human tide, and by February President Mubarak's 30-year reign was over. If he'd hoped to save himself with his parting message to the nation – "I am proud of you as the new Egyptian generation calling for a change to the better, dreaming and making the future" – he clearly didn't know his own people very well, for he was promptly detained, fined \$33.6m and charged with murder. And still the Arab spring was yet to claim its greatest prize. For 42 years, the mad dog of Libya had tyrannised his own people, terrorised the west – and still managed to wind up as



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Tony Blair's new best friend. Successful dictators cultivate a myth of invincibility around them, until the point where defeat becomes literally unimaginable and the myth becomes truth. Colonel Gaddafi passed that point so long ago that when rebels first seized Benghazi, and the UN authorised Nato air support, some feared we were entangling ourselves in a war that would be open-ended at best, and at worst unwinnable. Even when Tripoli fell in August to the rebels – a raggle-taggle amateur army in battered pick-up trucks – still Gaddafi survived, slipping away to a concrete drainpipe hideaway. When rebels finally dragged him out and shot him, footage of Gaddafi's grisly end caused some unease in the west, but for Libyans it was proof of the impossible, and when a postmortem revealed their former tyrant wore a toupee, few could begrudge them the mocking hilarity of Gaddafi's Wizard of Oz moment.

But what did the Arab spring mean? And where will it lead? Uprisings in Algeria, Bahrain, Morocco and Oman were crushed, but in Yemen the world's longest reign of a non-royal head of state finally came to an end in late November. By then Egyptians had lost faith in their ruling military council's commitment to democracy, their suspicions confirmed when fresh protests in Tahrir Square were attacked with tear gas and brutal beatings. In an echo of Mubarak's parting speech, the military issued a statement via Facebook offering "regrets and deep apologies for the deaths of martyrs from among Egypt's loyal sons during the recent events in Tahrir Square". The likelihood of Egyptians taking this sentiment any more seriously than they did Mubarak's must be remote, and the victors of early elections were the Muslim Brotherhood.

Meanwhile, popular protests in Syria, which began in January, were spiralling into civil war. With more than 5,000 lives lost, protesters' banners pleaded, "If we don't have oil like Libya and Iraq, don't we deserve to live?" If any country encapsulated western ambivalence about the Arab spring, it was Syria, whose strategic value was embarrassingly exposed by a gushing American Vogue profile in February of President Assad's wife, praising the "democracy" in the household of this "rose of the desert".



A portrait of Greek Prime Minister George Papandreou as a clown is hung from a noose in Athens during a rally against a new austerity package, 2 June. Photograph: /John Kolesidis/Reuters

"Arab spring? This is turning into the winter of jihad," shrieked the Daily Mail by November. The old dictators might have been monstrous tyrants – but at least they weren't Islamist fanatics – and democracy is all very well in the west, but what if Arabs get the vote and elect a bunch of fundamentalists? Seldom has the tension between democratic principle and realpolitik been tested so publicly. But if the Middle East's old guard were feeling the pressure, it was as nothing compared with the crises gripping Europe.

In the course of a single year, the governments of Ireland, Portugal, Greece, Italy and Spain all collapsed under the weight of sovereign debt. The Celtic tiger was the first to be exposed as an optical illusion – and in February the Fianna Fáil party, which had



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dominated national politics for 70 years, wasn't just voted out of office but off the political map. Portugal's prime minister was the next to go in March, but it was the violence paralysing Athens that lurched Europe from drama into crisis. Tear gas and riot police were no match for the fury of Greeks facing financial ruin, but prime minister Papandreou's promises of yet more austerity were no match for the markets either, and his kamikaze bid to square the circle with a referendum he'd failed to mention even to his own cabinet proved the final straw, making him the first European leader to be replaced by a technocrat – but not the last.

Silvio Berlusconi's mind began the year on matters much closer to home. The man who once described himself as "the Jesus Christ of politics" was facing trials for corruption and sex with an under-age prostitute, but it wasn't bunga bunga parties but Italy's bank balance he should have been worrying about. As late as November, Berlusconi was blithely insisting "our restaurants are full of people", but the markets could no longer be fooled, and eight days later he, too, was gone, replaced by another technocrat ex-banker. A week later, Spain's government fell as well, leaving Europe's leaders staring into the abyss.

Would the euro survive? Would the EU survive? Did we need closer fiscal integration – a two-speed Europe? Repatriation of powers? Summit after summit produced little more than alarming proof that nobody had a clue. Half-forgotten political forces rose phoenix-like from the crisis – first the unions, launching their biggest strike in a generation, and then the Tory Eurosceptics, for whom Christmas came early when a government containing the most pro-European party in parliament stunned the country by exiling Britain into a minority of one in Brussels. Were we witnessing our exit from the European dream, or jumping from a sinking ship? The only certainty to emerge from the turmoil engulfing the continent was, in the words of one columnist, that, "The grown-ups are not in charge."

So who is? The answer, we discovered this year, is the markets – and for one very simple reason. People lose power when they run out of money, and in 2011 we didn't just lose a lot of money, but faith in our entire way of life. In the words of Mervyn King, we reached "an extraordinarily serious" and "exceptionally threatening environment" that could spiral into a "systemic financial crisis". Richard Branson put it more simply: capitalism has "lost its way".

If hundreds of billions-worth of bailouts haven't saved the eurozone, what hope have ordinary British families of surviving the meltdown? While global stock markets plunged into freefall, one in four of us were struggling to pay our fuel bills, as wage cuts and inflation saw living standards plummet. By 2013, predicted the Institute for Fiscal Studies, cuts will have condemned more than 3 million children to poverty and caused the sharpest fall in average incomes in 35 years.

Unemployment passed 2.5 million, on its inexorable rise to the highest level in 17 years. By the end of the year, more than 1 million young people were out of work, each one a casualty of an economic catastrophe that began in Wall Street boardrooms and has reached the bedrooms of British teenagers. But unless the chancellor decides he might have a Plan B after all, more of us will be out of a job next year. Most will be women, and if Cameron hopes to stop losing any more of their votes, he probably shouldn't suggest they, "Calm down, dear."

The economy wasn't to blame for every job loss this year, though. Richard Keys and Andy Gray had only their Neanderthal sexism to blame for losing their jobs at Sky – though the pair looked like monks compared with Dominique Strauss-Kahn, whose arrest for rape in a Manhattan hotel bathroom (a charge that was later dropped) prompted a flood of sexual allegations, and a sudden vacancy at the IMF. Drunken fumbblings with an old flame, weeks after his wedding to the Queen's granddaughter, lost Mike Tindall his place in the English rugby squad – the second royal embarrassment of the year, after Prince Andrew's friendship with a convicted sex offender cost him his job as UK trade envoy.

There was little sympathy for John Galliano when his antisemitic outburst in a Paris bar ("I love Hitler") sent him packing from Dior and into court – and even less for the staff of a Bristol care home, sacked after an undercover Panorama reporter revealed grotesque abuse.



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Steve Coogan, Hugh Grant and Max Mosley at the joint committee on privacy and injunctions, 5 December. Photograph: PA Wire

Defence secretary Liam Fox could presumably rely upon the sympathy of friends when he lost his job in October – for we'd discovered just how close he likes to keep his friends, after Adam Werrity kept popping up beside him all over the world. Cheryl Cole was perhaps alone in taking no public blame when US X Factor dumped our Geordie sweetheart only weeks into the job, claiming audiences simply wouldn't understand a word she said. After losing more than 3 million viewers, the UK's X Factor judges may well be out of a job themselves next year.

In Russia, Vladimir Putin's party held on to its parliamentary majority, but mass protests against election-rigging suggested the Kremlin's great survivor might be losing his grip. In the US, a comical string of politicians managed to lose a job before coming close to even landing it. Michelle Bachmann's presidential campaign was the first to implode, undermined by puzzling statements such as her claim that the cervical cancer vaccine causes "mental retardation", swiftly followed by Rick Perry's, when he couldn't remember which government agencies he was campaigning to close. A pizza magnate raised fleeting Republican hopes before being accused of sexual harassment and displaying a mastery of foreign policy that made Sarah Palin look like Henry Kissinger. Asked if he supported Obama on Libya, Herman Cain searched his mind for nine toe-curling seconds before coming out with, "President Obama supported the uprising. Correct?" plunging the party's search for a plausible candidate into such disarray that Newt Gingrich – that champion of down-home family values currently on his third wife, 27 years his junior, for whom he keeps a \$500,000 credit line open at Tiffany – is back in the race. Such is the Tea Party's panic at the prospect of a Mormon candidate, Mitt Romney, any day now Cheryl Cole may be getting a call.

But the year's most sensational string of job losses began with a single resignation. When Andy Coulson stood down as Cameron's official spokesman in January, who could have dreamed he'd be followed by Rebekah Brooks, Les Hinton, Sir Paul Stephenson, John Yates, Baroness Buscombe and not only the entire staff of the News Of The World but the 168-year-old newspaper itself? For a few heady weeks in July, we watched in amazement as fortress Wapping began to collapse like a house of cards, Rupert and James Murdoch reduced from figures of fear to mockery, as they sat before a select committee like a doddering old man and a naughty schoolboy who hadn't done his homework. "You must be," sneered Tom Watson MP, "the first mafia boss in history to not know he was running a criminal enterprise." The fate of the Murdochs and their empire remains an open question, and by the time the Leveson inquiry has completed its investigation next year, what will be left of the British media as we know it is anyone's guess.



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Four ex-MPs and two lords were jailed for expenses fraud, followed in October by three of Pakistan's Test cricketers for spot-fixing, along with several student protesters for their part in last year's tuition fee riots. Julian Assange's confinement was more comfortable, spending the year under house arrest in a stately home, but the Wikileaks chief's fight against extradition to Sweden on rape charges was finally lost, barring a final appeal to the supreme court next year.

In November, Shelter warned that 35,000 people – two every second – were at risk of losing their home before the end of the year through repossessions and rent rises. If Eric Pickles was right in his letter to Cameron, leaked in July, another 40,000 may be made homeless by the new housing benefit cap – and if Boris Johnson has his way, so will the "bivouacked crusties" and "fornicating hippies" whose new canvas homes were "erupting like boils" in London this autumn.

"We are the 99%" declared the Occupy Wall Street movement as it pitched camp in New York in September. Anti-capitalism camps began appearing on every continent, but the tents that quickly pitched outside St Paul's in London proved more of an immediate problem for the church than the City. After three clerics had resigned, the cathedral withdrew its support for eviction, and the camp's future now lies with the courts.

Homes, liberty, jobs, power, money – all were lost in 2011, but still eclipsed by the year's loss of life. The earthquake and tsunami that shattered Japan in March killed 18,000 and left swathes of the country looking like old footage of Hiroshima. The legacy of damage to the Fukushima nuclear plant still isn't known, but the death toll from earthquakes in New Zealand and Turkey was heartbreakingly instant, wiping out 1,000 lives.

A year that began with apocalyptic floods in Brazil saw the suburbs of Bangkok underwater by the autumn, but these were natural disasters of an ominously unnatural kind. Drought in east Africa has starved and displaced hundreds of thousands, Hurricane Irene tore through the Americas in August, February's cyclone in Queensland left much of the state looking more like Venice than Australia – and that was only some of the world's extreme weather. November's Intergovernmental Panel on Climate Change report confirmed only what we already feared: this wasn't bad luck, but proof we are losing the fight against climate change. The deal struck in Durban a month later was, despaired Friends of the Earth, an "empty shell of a plan" that leaves the planet "hurtling towards catastrophic climate change".

Nothing will ever fully explain why **Anders Breivik** woke up one morning in July and set off a bomb in Oslo killing eight, before moving on to a political youth summer camp on the picturesque island of



Utøya, where the 32-year-old Christian laughed and cheered as he calmly gunned down 69 teenagers.

Less astonishing was the death that same month of Amy Winehouse. The only real surprise was the autopsy report, which found no illegal drugs in the 27-year-old singer's system. After all the crack and cocaine, the drug that killed her was alcohol. "I think," her mother wept, "Amy thought she was invincible." For Apple fans mourning the loss of Steve Jobs to cancer in October, their hero wasn't just a techie rock star but a saint, honoured



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with shrines of apples outside Apple stores across the world. In the year of the iPhone 4, Ofcom declared us "addicted to smart phones", but even Jobs was no rival for the year's most iconic death.



Royal wedding well-wishers behind a line of police near Buckingham Palace. Photograph: Oli Scarff/Getty Images

"We got him," may be the sweetest three words President Obama has heard since entering the White House, relayed to a tense situation room early on May 2 by US special forces who had stormed a plain-looking house in a quiet Pakistani garrison town, and shot dead the world's most wanted man, Osama bin Laden. But British bodies kept on coming home from Afghanistan, averaging one a week in a year that saw the 10th anniversary of 9/11, but still no end to the decade-long war.

Last month, the football world was shocked by the news that Welsh manager Gary Speed had killed himself, but most of the year's sporting losses were not tragic so much as farcical. England didn't even reach the rugby World Cup semi-finals, with one player's lament as he left the field – "There's £35,000 down the toilet" – confirming suspicions that the squad cared more for money than for their country. Andy Murray lost his third grand slam final, and most of us lost out on our bid for Olympics tickets, in an application process that made a papal election look straightforward. Ryan Giggs's 20-year career at Old Trafford looked in danger of ending in tacky disgrace, when the footballer's superinjunction gagging an alleged affair with a model became the talk of Twitter – and when Manchester United lost 1-6 to Manchester City in October, Alex Ferguson's reign seemed to be ebbing away. When both teams tumbled out of the Champions League at the group stages, the Premiership's dominance of European football began to look as doubtful as Britain's place in European politics.

Who, then, were the year's winners? The royal family was generally agreed to have pulled off a good wedding, though the real sensation was the derriere of the bride's sister following Prince William and Kate Middleton up the aisle. Amanda Knox walked free from an Italian prison, and the Scottish National party achieved a historic outright majority, though one that leaves Alex Salmond with a tricky obligation to hold an independence referendum few think he can win. If anyone could claim to have had the time of their life in 2011, it was the cast of *The Only Way Is Essex*, whose vajazzled bling became the year's inexplicable hit.

Royal weddings and reality TV left an unnerving whiff of decadent decay lingering over the remains of the year. "No country, or group of countries, stays on top for ever," observed the Economist. "People who grew up in America and Western Europe have become used to the idea that the west dominates the world economy. In fact, it is anomalous that a group of 30-odd countries with a small fraction of the world's population should be calling the shots." We will remember 2011 for all that was lost – but for the east, it may be the year their century began.



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### Sharia4Belgium calls on Muslims to turn Belgium into Sharia state

Source: [http://islamineurope.blogspot.com/2011/12/belgium-sharia4belgium-calls-on-muslims.html?utm\\_source=feedburner&utm\\_medium=email&utm\\_campaign=Feed%3A+IslamInEurope+%28Islam+in+Europe%29](http://islamineurope.blogspot.com/2011/12/belgium-sharia4belgium-calls-on-muslims.html?utm_source=feedburner&utm_medium=email&utm_campaign=Feed%3A+IslamInEurope+%28Islam+in+Europe%29)



until, Allah willing,  
we reach the White House.



a symbol of the *Taghut* regime,  
the *Taghut* system, ruling this country.



But Allah willing, Belgium will soon  
be freed from polytheism and idolatry.

[Full clip here](#), via MEMRI.

### Mystery man in new Al Qaeda video

Source: <http://security.blogs.cnn.com/2011/12/20/mystery-man-in-new-al-qaeda-video/>

A new video released by the Yemeni wing of al Qaeda includes a mysterious English speaker

The mystery man, Abu Yazeed, appears twice in the video. He is in shadow, peering off camera, and is wearing glasses and has a full beard. He is wearing what appears to be a black-and-white turban. He is identified as "Brother: Abu Yazeed."



In the video, Abu Yazeed speaks with an accent. He criticizes the U.S. for targeting Muslims as it fights terrorism, referencing the killings of al-Awlaki and American Samir Khan, who was killed in the same strike, and al-Awlaki's son, who was killed in a separate strike.

in what could be the debut of a new spokesman to replace Anwar al-Awlaki. The video, posted by al Qaeda in the Arabian Peninsula's media arm, is a commemoration of al-Awlaki, who was killed by a U.S. drone strike last September. It includes new footage of al-Awlaki lecturing.

"Their willingness to exceed all limits is just unthinkable and by assassinating three of its own citizens far away from combat zones and with no judicial process," he says.

In his second appearance, he eulogizes Samir Khan, the editor





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of AQAP's Inspire magazine, a publication aimed to appeal to Westerners.

A counterterrorism expert told CNN that Abu Yazeed is probably just a partial name, making it difficult to ascertain his identity. Abu Yazeed (also spelled Yazid) is a common name.

The appearance of Abu Yazeed could be significant. The killings of al-Awlaki and Khan were considered a major blow to the terror group's efforts to appeal to Westerners.

"This is the first time an English speaker has appeared in an AQAP video other than al-Awlaki and is likely to mark his addition to the face of AQAP," said Ben Venzke of IntelCenter, who analyzes terrorist communications. Venzke said that Abu Yazeed could be used the way that al Qaeda in Pakistan uses Adam Gadahn: to deliver a message to Westerners.

No articles about Yazeed appear in past issues of Inspire, said Adam Raisman, an analyst at the SITE intelligence group, who did a search for Security Clearance. Raisman said the name was probably a "nom de guerre."

Raisman said it was possible that AQAP was trying to debut him in connection with al-Awlaki, who held strong appeal to some Westerners. The U.S. government considered him a threat because of how influential he was in appealing to those in the West and recruiting jihadists.

They could be showing that despite killing al-Awlaki, "there are other English speakers" in AQAP "who can appeal to a Western audience," Raisman told CNN. He said it remains to be seen in future releases whether he truly is the new spokesman.

## Iraq's Christians Near Extinction

By Raymond Ibrahim

Source: <http://www.meforum.org/3135/iraq-christians-extinction>

A recent Fox News report tells of how "a rash of attacks on Christian-owned businesses in northern Iraq has raised troubling questions about the future safety of the country's shrinking Christian community, particularly as U.S. forces withdraw completely from the nation they've refereed since 2003."

In fact, "questions about the future safety of the country's shrinking Christian community" have been raised ever since the U.S. toppled secular strongman Saddam Hussein, thereby unloosing the forces of jihad previously corked. The report continues:

The attacks, which have received little international attention, raged through northern cities following a sermon last Friday by a local mullah. Video purportedly from the riots posted online shows mobs burning and wrecking businesses, which included liquor stores, hotels and hair salons.

Note the two important facts here that play over and over whenever Christians are persecuted under Islam: 1) Despite their frequency and severity, they "receive little international attention" (indeed, only the most spectacular of terrorist attacks on Christians—such as the 2010 Baghdad church attack which left some 60 dead—ever receive mainstream media attention); and 2) as usual, the attacks followed "a sermon last Friday by a local mullah" (in other words, are Islamic in nature).

As if the situation wasn't bad enough, after pointing out that "Iraqi Christians ... are living in fear," U.S. Rep. Frank Wolf said:

"Now with the [U.S.] forces leaving ... I think the Iraqi Christians are going to go through a very, very difficult time." ... He urged the Obama administration to do more to speak up on the issue. "They know this is a problem. Our government ought to be advocating and ought to be pushing."

It ought to, but it's not. After calling the U.S. government's silence concerning the blatant persecution of Iraq's Christians "disturbing," the founder of the Iraqi Christian Relief Council added: "We're on the verge of extinction."

Writer Kenneth Timmerman, who recently returned from Iraq, was asked in an interview "what if anything is the U.S. doing to alleviate the plight of Christian minorities ... in Iraq?" His response:

Under President Obama the U.S. is doing nothing. They are putting no pressure on Al-Maliki in Iraq. ... I just returned from Northern Iraq ... I can tell you that this is a community that is on the verge of extinction. The Assyrian Chaldean Syriac community in Iraq [i.e., the Christian community] constitutes the indigenous people of Iraq. They have been there for millennia. They are being driven out by Jihadi Muslims on the one hand



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and by Kurdish Nationalists on the other. Worse, whereas Iraq's Christians were in the habit of fleeing to neighboring countries for refuge, in light of the so-called "Arab Spring," these countries are no longer safe, as their own Christians are increasingly targeted. In fact, by pushing for "democracy" and "elections, the Obama administration has helped unloose some of the most anti-Christian—not to mention anti-Western, anti-Israel, in a word, anti-infidel—forces in the region. Consider Syria, for instance, where many Iraqi Christian refugees have fled to: As the Assad regime comes under mounting international pressure, Christians, who comprise around ten per cent of the population, are particularly concerned about what the future holds for them and Iraqi Christian refugees living in the country. Should Assad fall, it is feared that Syria could go the way of Iraq post-Saddam Hussein. Saddam, like

Assad, restrained the influence of militant Islamists, but after his fall they were free to wreak havoc on the Christian community; hundreds of thousands of Christians were consequently forced to flee the violence. Many of them went to Syria. ... Most of the Iraqi Christians living in Syria are worried because they do not want to see Syrian Christians passing through the same path as happened with them in Iraq.

As if all this was not enough, Pamela Geller reports that "Christians are being refused refugee status [in the U.S.] and face persecution and many times certain death for their religious beliefs under Sharia, while whole Muslim communities are entering the U.S. by the tens of thousands per month despite the fact that they face no religious persecution." Such is the increasingly surreal world we live in.

*Raymond Ibrahim is a Shillman Fellow at the David Horowitz Freedom Center and an Associate Fellow at the Middle East Forum.*

## U.S. Diplomatic Security in Iraq After the Withdrawal

By Scott Stewart

Source:[http://www.stratfor.com/weekly/20111221-us-diplomatic-security-iraq-after-withdrawal?utm\\_source=freelist-f&utm\\_medium=email&utm\\_campaign=111222&utm\\_term=sweekly&utm\\_content=readmore&elq=a197c0f35901445a980448ed6de8de11](http://www.stratfor.com/weekly/20111221-us-diplomatic-security-iraq-after-withdrawal?utm_source=freelist-f&utm_medium=email&utm_campaign=111222&utm_term=sweekly&utm_content=readmore&elq=a197c0f35901445a980448ed6de8de11)

The completion of the U.S. military withdrawal from Iraq on Dec. 16 opens a new chapter in the relationship between the United States and Iraq. One of this chapter's key features will be the efforts of the United States and its regional allies to limit Iranian influence inside Iraq during the post-Saddam, post-U.S. occupation era.

From the 1970s until the U.S. invasion of Iraq in 2003, Iranian power in the Persian Gulf was balanced by Iraq's powerful military. With Iraqi military might weakened in 1991 and shattered in 2003, the responsibility for countering Iranian power fell to the U.S. military. With that military now gone from Iraq, the task of countering Iranian power falls to diplomatic, foreign-aid and intelligence functions conducted by a host of U.S. agencies stationed at the U.S.

Embassy in Baghdad and consulates in Basra, Kirkuk and Arbil.

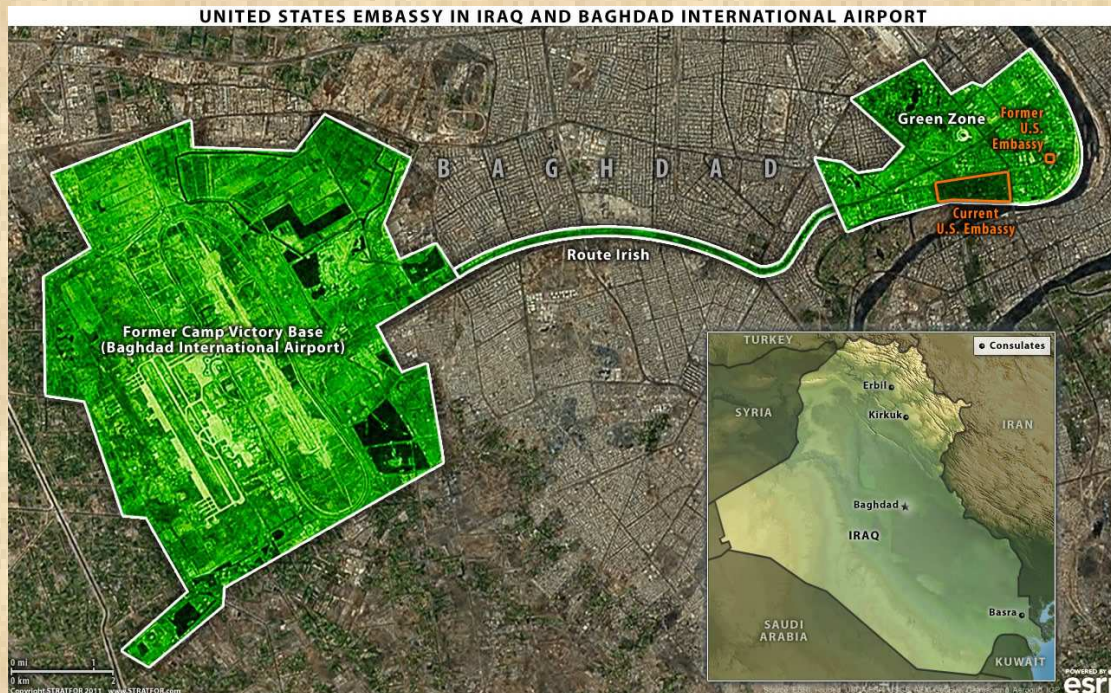
Following the invasion of Iraq, the U.S. Embassy in Baghdad became the largest embassy in the world. Ensuring the safety of as many as 11,000 people working out of the embassy and consulates in such a potentially hostile environment will pose a huge challenge to the U.S. State Department's Diplomatic Security Service (DSS), the agency with primary responsibility for keeping diplomatic facilities and personnel secure. The CIA's Office of Security (OS) will also play a substantial, though less obvious, role in keeping CIA case officers safe as they conduct their duties.



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Both the DSS and the OS are familiar with operating in hostile environments. They have

the facility and to provide a standoff distance of at least 100 feet from any potential explosive



done so for decades in places such as Beirut and, for the better part of a decade now, in Afghanistan, Pakistan and Iraq. However, they have never before had to protect such a large number of people in such a hostile environment without direct U.S. military assistance. The sheer scope of the security programs in Iraq will bring about not only operational challenges but also budgetary battles that may prove as deadly to U.S. personnel in Iraq as the militant threat.

### Scope

The U.S. Embassy in Baghdad sits on a 104-acre compound in Baghdad's Green Zone. The size of the compound provides significant standoff distance from the perimeter to the interior buildings. The chancery itself, like the consulate buildings, was constructed in accordance with security specifications laid out by the U.S. State Department's Standard Embassy Design program, standards first established by the Inman Commission in 1985 in the wake of the U.S. Embassy bombings in Beirut. This means that the building was constructed using a design intended to withstand a terrorist attack and to provide concentric rings of security. In addition to an advanced concrete structure and blast-resistant windows, such facilities also feature a substantial perimeter wall intended to protect

device.

Standoff distance is a crucial factor in defending against large vehicle-borne improvised explosive devices (VBIEDs) because such devices can cause catastrophic damage to even well-designed structures if they are allowed to get close before detonation. When combined, a heavy perimeter wall, sufficient standoff distance and advanced structural design have proved successful in withstanding even large VBIED attacks.

Working inside the heavily fortified embassy and consulates in Iraq are some 16,000 personnel, 5,000 of whom are security contractors. The remaining 11,000 include diplomats, intelligence officers and analysts, defense attaches, military liaison personnel and aid and development personnel. There also are many contractors who perform support functions such as maintaining the facilities and vehicles and providing needed services such as cooking and cleaning.

When considering the 5,000 security contractors, it is important to remember that there are two different classes of contractors who work under separate contracts (there are contracts for perimeter guards and personal security details in



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Baghdad as well as for security personnel at the consulates in Basra, Erbil and Kirkuk). The vast majority of security contractors are third-country nationals who are responsible for providing perimeter security for the embassy and consulates. The second, smaller group of contract security guards (from 500 to 700, many of whom are Americans) is responsible for providing personal security to diplomats, aid workers and other embassy or consulate personnel when they leave the compound. A parallel team of OS contract security officers, funded under the CIA's budget, provides security for CIA officers when they leave the compound.

In Iraq, a team of some 200 DSS special agents now oversees U.S. security operations (by contrast, a typical U.S. Embassy has two or three DSS special agents assigned to it). These agents are charged with implementing all the security programs at the embassy and consulates, from physical security and counterintelligence to cyber security, visa fraud and the investigation of crimes that occur on official premises. (With 16,000 full-time personnel assigned to these posts in Iraq, there are bound to be fights, thefts and sexual assaults.) DSS special agents also provide close oversight of the contract guard programs and directly supervise protective details during moves off the compound.

U.S. embassies are designed to incorporate concentric rings of security. The outermost ring is provided by host-country security forces that are charged, under the Vienna Convention on Diplomatic Relations, with keeping foreign diplomats safe. Inside that ring is the local guard force, contract security guards who protect the outer perimeter of the facility. They also screen vehicles and pedestrians entering the compound.

The chancery itself is also designed to have concentric rings of security. Inside the outside walls of the building there is an additional ring of physical security measures called the "hardline," which serves to protect the most sensitive areas of the embassy. The integrity of the hardline is protected by a security detachment of U.S. Marines, which in Baghdad is a company-sized element. Inside the hardline there is also an additional layer of physical security measures intended to provide a safe haven area, the final fallback defensive position for embassy personnel.

### Threats and Challenges

Because of the size and construction of the chancery and the consulate buildings, there is very little chance of an armed assault or IED attack succeeding against these facilities. While an indirect-fire attack using mortars or artillery rockets could get lucky and kill an American diplomat outside of the building, the biggest threat posed to American personnel is probably when they travel away from the compound. The large number of people assigned to these posts means there are many movements of personnel to and from the facilities (we're hearing approximately 20 to 30 per day from the embassy alone).

Baghdad's Green Zone only has three exits, and there are multiple chokepoints such as bridges and security checkpoints throughout the city. These geographic constraints can be even more heavily exploited in planning an attack if a militant actor can also narrow the time factor by developing a source inside the embassy who can warn of an impending move. The time factor can also be narrowed if militants are allowed to operate freely by host-country security forces due to incompetence or collusion.

Of course, the most dire physical threat to a hardened diplomatic facility is mob violence.. If a large mob storms an embassy and the host-country security forces either cannot or refuse to act to stop it, there is no facility in the world that can withstand a prolonged assault by a determined crowd equipped with even primitive hand tools. The high-security doors on the exterior of a U.S. embassy and at the interior hardline can withstand an assault with a sledgehammer for 30 or 40 minutes, but the doors will eventually be defeated. Crowds armed with incendiary devices or explosives pose an even greater threat. During the November 1979 assault on the U.S. Embassy in Islamabad, the mob that stormed the embassy compound lit a fire in the chancery that nearly burned the embassy staff alive as they hid in the building's safe haven.

So the real key for security of American diplomatic facilities in Iraq, as in any country, is in the hands of the Iraqi government. Currently, there is a Brigade Combat Team from the U.S. Army's 1st Cavalry Division on station in Kuwait, and a Marine Expeditionary Unit will likely be stationed in the region for the foreseeable future. However, if



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the security environment in Iraq degrades significantly, it might prove quite difficult to get those forces to a besieged diplomatic facility in time, even if the United States is able to maintain a secure area at the Baghdad International Airport it can use to fly troops into Baghdad and evacuees out. (Getting 16,000 personnel out of Baghdad is no small task, and the number needing to leave would likely be augmented by non-official Americans in country.)

While much ado is being made in the news over the use of contract security guards in Iraq, it must be remembered that the DSS has used contract security guards to provide local guard services on the perimeter of almost every U.S. embassy and consulate in the world for decades. Even small embassies have dozens of contract guards who provide 24/7 perimeter security. In many cases, contract guards provide residential security for diplomats and their families. The DSS also has decades of experience operating in countries where the governments and populace are hostile to their security programs. The anti-contractor sentiment in Iraq in the wake of the 2009 Blackwater shooting incident is not unique, and U.S. embassies operate in many places where anti-American sentiment is quite high.

The concept of a diplomatic facility where diplomats cannot go off embassy grounds unless they have a security escort is also not new. The U.S. Embassy in Beirut has operated that way since the 1980s. In Beirut, DSS agents supervise these security details, but the security personnel manning the details are contractors. However, while such measures have long been in effect in Lebanon, the size of the U.S. Embassy there is quite small. In Iraq, such measures have been applied to a far larger number of people. The sheer scale of this security effort means that the budget to pay for it will have to be immense. The State Department has estimated that it will cost some \$3.8 billion to get the system running the first year, and it is then projected to cost roughly \$3.5 billion per year. And that number represents just the operating costs; it does not include pre-deployment training for personnel assigned to the mission and other important measures.

Over the many years that the DSS has been overseeing guard contracts, the service has learned many lessons (some the hard way). One instructional incident was the September

2007 shooting of civilians in Nisoor Square in Baghdad by Blackwater contractors. Indeed, that incident spurred the DSS to mandate that a DSS agent be present to oversee every motorcade move. This is a big reason why there are now 200 DSS agents in Iraq. Since the DSS only has 2,000 agents to cover its global responsibilities, the mission in Iraq is placing a lot of strain on the organization.

The presence of these agents on motorcades will undoubtedly assist the DSS in monitoring the performance of its contractors, but experience has shown that wherever there are guard contracts there will inevitably be instances of guard company managers attempting to pad profits by claiming compensation for services they did not render or skimping on services. Such problems tend to be relatively small in the case of, say, a 72-man local guard force in Guatemala, although it is not unusual to see a company lose its guard contract due to irregularities or incompetence. When you are talking about billions of dollars worth of guard contracts in Iraq covering thousands of security personnel, however, the potential for contract issues and the size of those issues is magnified. Because of this, the DSS, the State Department Inspector General and the Government Accounting Office will undoubtedly pay very close attention to ensure that contracts are properly fulfilled. The DSS, like many other government agencies, has been heavily criticized for its contract oversight in Iraq and Afghanistan over the past several years and has instituted new controls. Today the service is far better at overseeing such massive contracts than it was at the beginning of its operations in Iraq.

With a total budget of only about \$50 billion for the State Department and U.S. Agency of International Development, and with only \$14 billion of that total going to fund operations worldwide, the billions earmarked for security in Iraq will certainly appear as a tempting pot of money for someone to raid — much like the funding provided to security programs in the 1980s following the recommendations of the Inman Commission.

As STRATFOR has previously discussed, spending for diplomatic security often follows a discernable boom-and-bust cycle.

During the boom, there is plenty of money to cover security expenses, but during the bust times, security programs often



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suffer death by a thousand cuts. Following the infusion of funding for diplomatic security programs in the 1980s, the 1990s saw a period of prolonged program cuts. Indeed, in the wake of the 1998 bombing attacks against the U.S. embassies in Nairobi and Dar Es Salaam, the Crowe Commission, tasked with investigating the matter, concluded in its final report that its members “were especially disturbed by the collective failure of the U.S. government over the past decade to provide adequate resources to reduce the vulnerability of U.S. diplomatic missions to terrorist attacks in most countries around the world.”

As the United States moves further from 9/11 with no significant attacks taking place, and as a mood of fiscal austerity takes hold in Washington, it is likely that budgets for foreign affairs and diplomatic security will be cut and a new security bust cycle will occur. In the long term, budget cuts and unsustainable DSS staffing levels will dictate that diplomatic security programs in Iraq will have to be reduced. Such reductions will also require cuts in the overall size of the diplomatic mission in Iraq unless there is a dramatic change in the security environment.

### **Muslim Brotherhood organizations in America: Goals, ideologies and strategies**

**By Lorenzo Vidino**

Source: <http://www.fpri.org/education/templetonlecture.html>

A story is illustrative of many of the dynamics I am going to address. It is the story of Abdul Rahman Alamoudi, an Eritrean-born biochemist, a member of the upper class in his country, who came to the United States in 1980 for graduate school at Boston University. After earning his degree, he moved to Washington, D.C. and became involved in several mainstream Muslim organizations. He began to develop an impressive network of contacts within the upper echelons of the U.S. political establishment. In 1990, Mr. Alamoudi co-founded the American Muslim Council and soon became a regular visitor to the White House, establishing good relationships with both Republican and Democratic administrations. He held frequent meetings in Congress, and even managed to lobby Congress successfully to host the first opening invocation from an Islamic leader in Congress. The Department of Defense put Mr. Alamoudi in the powerful position of training and vetting the imams who attend to the religious needs of Muslims in the military. His organization was praised by the FBI as the most mainstream Muslim group in the United States. The State Department appointed Mr. Alamoudi as Goodwill Ambassador, asking him to travel throughout the world representing American Muslims. Washington’s establishment clearly considered Mr. Alamoudi a successful representative and moderate Muslim leader who could be a spokesman and model for the American Muslim community.

In 2003, however, an unexpected discovery during a routine customs inspection at London’s Heathrow Airport undid Alamoudi’s accomplishments. He was found to have concealed more than \$300,000 in a suitcase. The investigation that followed revealed that Alamoudi had been smuggling cash from Libya illegally since 1995. That specific amount of money was intended to support a murky plot linked to al Qaeda to assassinate Saudi Crown Prince Abdullah. A year later, Mr. Alamoudi pled guilty to all charges and is currently serving a 23-year sentence in jail. The investigation also showed that Alamoudi had financial dealings with Hamas and al Qaeda, among other organizations.

Interestingly, to many people in Washington, Alamoudi’s ties did not come as a complete shock. Since 1990, in fact, law enforcement had been monitoring Alamoudi’s links to suspected terrorist elements in the United States and abroad. In addition, over the years, Alamoudi often made comments that displayed his sympathy and ties for Islamist groups banned in the United States. Once Mr. Alamoudi was on the phone with an interlocutor and said that the 1998 bombing of the U.S. Embassies in East Africa were to be condemned, but only because “Many African Muslims had died and not a single American had died.” But Alamoudi also expressed his political views in public venues. In October 2000, speaking at Washington’s



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Lafayette Park, only a block from the White House, Alamoudi proudly proclaimed, “Hear that, Bill Clinton, we’re all supporters of Hamas. I wish they added that I’m also a supporter of Hezbollah.”

Now, the case of Alamoudi and the American Muslim Council (AMC) raises several questions. In 1996, AMC claimed to have 5,000 members, out of a population of American Muslims it estimated quite generously to be seven million. (The numbers in reality were actually much lower than that.) How could the head of an organization that by its own calculations represented no more than .07 percent of the American Muslim population, whose leadership had never been elected by the Muslim community, and whose leaders were known to the intelligence community as tied to terrorist groups, become the de facto spokesman for the American Muslim community for Washington’s establishment?

The height of Mr. Alamoudi’s fall makes his case unique. But the issues raised by this story are not limited to him. It tells us about three interrelated issues. First, there is the nature and the modus operandi of the Muslim Brotherhood globally and here in the United States. The second issue relates to the organizational dynamics of the Muslim community here in the United States. And finally, there is the issue of the U.S. government’s attitudes regarding the Muslim community and the Muslim Brotherhood—two very different issues.

### The nature of the Muslim Brotherhood

The Muslim Brotherhood is the oldest and most influential Islamist movement. It was founded in Egypt in 1928. And, like most of the grassroots movements that appeared in Egypt at the time, it was strongly opposed to colonial rule and advocated Egyptian independence. But while most of the movements that opposed British colonialism at the time in Egypt took from Western ideologies, the Brotherhood based its discourse on Islam. Creating what would become the model of generations of Islamists, the Brotherhood saw in Islam the answer to Western military, political, economic, and cultural influence over the Muslim world.

Hassan al-Banna, the Brotherhood’s founder, viewed Islam as a complete, all-embracing system governing all aspects of life—both private and public. For him, Islam was not just “empty acts of frustration, but politics, society,

economy, law and culture.” Solutions to all problems of Egypt and more broadly of the entire Muslim community world-wide could be found in this system, according to the Brotherhood.

In its ideology, the Brotherhood was looking at a mythical past as a solution for its current problems. Yet its modus operandi was very modern, and used many methods of modern political movements to both spread its ideas and mobilize support. The Brotherhood sought bottom-up Islamization of society for the creation an Islamic state, through proselytizing, spreading the ideas of the group, and convincing people to buy into this interpretation of Islamism

If grassroots Islamization was the main method that the Brotherhood used from the beginning, it must also be said that violence was part of the original equation. From the 1930s and 1940s, the Brotherhood used violence against its opponents, whether the British, the Jewish community or the Egyptian government. For decades, the Brotherhood was subjected to very harsh persecution by the Egyptian government. The worst time was in the 1960s, at the hands of Gamal Abdel Nasser. This time included torture camps, executions, and, for the lucky ones, deportations.

### The globalization of the Muslim Brotherhood

This heavy suffering at the hands of Nasser led to three developments. First, one wing of the Brotherhood decided to embrace violence completely. Proselytizing was impossible. The Brotherhood had to use violence to overthrow the Egyptian regime and any other regime that was not Islamic enough. So when we hear that the Muslim Brothers are the forefathers of al Qaeda, it is a simplification, but it’s partially true. The belief that only violence can achieve the goal of creating an Islamic state has its origin in the thinking of Brotherhood theoretician Sayyid Qutb in the 1960s.

Second, a wing of the Brotherhood in the 1960s decided that violence wasn’t going to achieve any success. The Brotherhood was too weak to confront Nasser and the Egyptian regime. Only grassroots activities—“bottom-up Islamization”—was the way forward. The Brotherhood we see today in Egypt, participating in elections, comes from this wing of the Brotherhood. They decided to



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find a modus vivendi with the Egyptian regime, although technically outlawed for decades in Egypt. Nevertheless, they participated in political life and most importantly in social life, providing social services and working on this bottom-up Islamization.

Finally, the third development, that took place the 1960s, was that some members migrated to other countries. Rather than opting for violence, or participation in the system, they chose to leave Egypt for other countries. Many went to the Arab Gulf, to Saudi Arabia and other countries where they held leading positions in government and the education system. But quite a few actually came to the West and received political asylum, whether in Europe or in North America.

Today, groups in more than 80 countries trace their origins to the Muslim Brotherhood and have adopted different forms and tactics according to the environment in which they operate. In a country like Jordan, they can participate in elections. This has been true for a long time so they are a political party. In Syria, the Muslim Brotherhood has been outlawed for many decades and survives underground. And the Brotherhood in Syria may well be reemerging. In the Palestinian territories, it took a peculiar turn and became Hamas. Entities belonging to this global movement succeeded based on an informal but very sophisticated network—with personal, financial, organizational, and most importantly ideological ties. There is a global Muslim Brotherhood in which organizations work according to a common vision but with operational independence.

Every branch, in every country, is free to choose its tactics and goals independently. There are consultations and constant communication but there is independence. It is not a monolithic organization. As noted, this global movement has a presence in the West—including the United States. The formation of these networks in the United States, as in most Western countries, follows a similar pattern. The small number of Brotherhood refugees who escaped persecution in Egypt and Syria, and other countries, and came to the West started interacting with more students from upper-middle class of their home countries. These latter students came to the United States and to Europe to study as graduate students like Mr. Alamoudi in European and American universities.

These small milieus formed in the 1960s and '70s bore immediate fruit, as they formed the first Muslim organizations in Europe and North America. In the United States, the Muslim Student Association was created in 1963 at the University of Illinois. The West's freedoms allowed the Brotherhood to do what was prohibited back home. Their activism soon attracted other Muslim students and small numbers of Muslim immigrants who had had no contact with Brotherhood ideology in their home countries. It is important to note that the first Brothers coming to America or to Europe were not part of a concerted plot to Islamize the West. Yet, the small organizations that spontaneously formed in the 1960s and '70s soon developed beyond the most optimistic expectations of their founders.

Today, thanks to ideological flexibility, unrelenting activism, and access to large funding, the networks originally established by the Brotherhood have grown exponentially. Although their membership has remained small, the "Western Brothers" have shown an enormous ability to monopolize the Islamic discourse, making their interpretation of Islam and political events the most readily available. Moreover, in many countries, the Western Brothers have positioned themselves at the forefront of the competition to be the main interlocutors of local establishments. Mr. Alamoudi is a good example. It is apparent that no other competing Islamic movement has the visibility, the political influence, and the access to Western elites that the Western Brothers have obtained over the last 20 years.

### American Brotherhood Organizations

In the United States, the nucleus that started with the Muslim Student Association in the 1960s spawned a myriad of organizations like the Islamic Association of North America (ISNA) and the Council on American-Islamic Relations (CAIR). Each has its own magazine, website, annual conference, and regional branches. But their unity is shown by common financial sources, interlocking board of directors, and occasional participation in common initiatives. The few hundred individuals who run them form a small social network united by family, business and most importantly ideological ties.

Affluent, well-connected, highly educated and motivated, they are





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a clique of leaders with few followers but ample clout. They are often the people U.S. authorities reach out to when seeking to engage the Muslim community, as the story of Mr. Alamoudi showed. They are not the only ones. It is not a monopoly, but certainly something close to it. Why is this? I think it's a combination of three reasons. The first is organizational skills. They are visible, vocal, and they lobby. They have offices a few blocks from Capitol Hill; and are Washington based. And they are very active.

Secondly, competing Islamic organizations don't share these strengths. The American Muslim community tends to be very well integrated. Most live in suburbs, scattered throughout a huge country. They are extremely divided in terms of ethnicity and origin. Most American Muslims do not have affiliations. Some might belong to mosques, but simply at the local level. They have little reason or incentive to organize at the national level. Islamists do because they have a political agenda. So it's fair to say that a well-organized minority has managed to position itself as the unappointed, yet de facto, voice of a largely unorganized and silent majority. These organized minorities have views and positions that are not necessarily shared by most of the people they claim to represent.

Third, the Brotherhood organizations have this quasi-monopoly with access to government due to dynamics inside the U.S. government.

We cannot really speak of the Muslim Brotherhood in America if we seek to identify offshoots of any Middle Eastern branch of the Brotherhood, whether Egyptian or any other. There is no "Muslim Komintern," with Cairo in the place of Moscow, as one scholar has expressed it. The organizations here have historical, organizational, and most importantly ideologically ties to the Middle East but they are independent. I think we should take a non-formalistic approach. In the United States we have organizations with ties to the Muslim Brotherhood. As such, we can call them American or Western Brotherhood organizations.

Over the last 20-30 years, these organizations have significantly readjusted their tactics and goals. The Brotherhood is a pragmatic movement that would not blindly apply what the Brotherhood and its founder had prescribed for Egypt in 1930 to modern London or Philadelphia. Undoubtedly, Western offshoots

of the Brotherhood support the formation of Islamic states in the Middle East. But their goals for the West are different. Critics argue that Western Brotherhood organizations have the goal of establishing Sharia Law in the West. I do believe that the prospect looms in their imagination. But introducing Sharia in the West is hardly the Western Brothers' goal at this stage.

Pragmatic and keenly aware of what they can and cannot do, the Brothers' priorities lay elsewhere. And foremost among their goals is the preservation of an Islamic identity among American and Western Muslims in general. But unlike some other conservative Muslim organizations, like Salafis for example, Brotherhood organizations seek to strengthen the Islamic identity of Western Muslim not by isolating them from mainstream society. What they advocate is a sort of conservatism without isolation, an openness without melting, which of course, is not an easy task.

The second goal that is common to all of these organizations is to be designated as official representatives of the Muslim community of their country. Despite their unrelenting activism and access to ample resources, the Brothers have not been able to create a mass movement and attract the allegiance of large numbers of American Muslims. The majority of U.S. Muslims either rejects or simply ignore the message coming from Brotherhood organizations. So the Brothers understand that a preferential relationship with American elites could provide them with financial and political capital, and legitimacy. This would allow them to significantly expand their reach and influence inside the community. They would be the ones, like Mr. Alamoudi, who would be in charge of appointing imams in the prison system, and in the military. They would be the ones the media would call when seeking the "Muslim opinion," if there is such a thing. They would, in some cases, receive subsidies to administer different social services. This is a more common practice in Europe than in the United States.

So making a clever political calculation, Western Brotherhood organizations are seeking to be recognized as representatives of the Muslim community in order to actually become it. And, of course, they would use this position of preferential access to government to lobby government on anything



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that has to do with Islam, whether it is domestic or foreign policy.

### The U.S. Government divide: Optimists vs. Pessimists

There is a divide within the policymaking community that mirrors the divide we see when it comes to the Muslim Brotherhood and Islamist movements overseas. So, we have two extremes—the optimists and the pessimists. On one hand, we see the optimists who argue that Western Brotherhood organizations are essentially a socially conservative force that encourages the integration of Muslim communities, offers a model in which Muslims can live there faithfully and maintain a strong Islamic identity while becoming actively engaged citizens. So, according to optimists, governments should not view these organizations with suspicion, but rather harness their grassroots activities and cooperate with them on common issues, including terrorism and radicalization.

Pessimists, on the other hand, see a much more sinister nature in the Western Brotherhood. In this view, Western Brotherhood organizations are engaged in a slow but steady social engineering program aimed at Islamizing Western Muslim populations. Ultimately, they will compete with Western governments for their allegiance. The fact that these organizations are not engaging in violence but participate actively in the democratic process is seen simply as a cold calculation on their part. According to pessimists, officials of Brotherhood-linked organizations have understood that infiltrating the system rather than attacking it head on is the best way to get what they want. After all, the tactics used by al Qaeda are not really going to work here. Instead, a slow, steady infiltration of the system will. And the pessimists see significant evidence pointing to duplicity in the tactics of Brotherhood organizations. It might be useful to make a comparison to the tactics used by the Communist party in the United States, 50-plus years ago. In fact, one significant example comes from Philadelphia.

Some may be familiar with the largest terrorism financing case in American history. It was a case tried four years ago in Texas against a charity called the Holy Land Foundation. This charity was collecting millions of dollars allegedly for orphans in the Palestinian

territories, but in reality for Hamas. The money was clearly going to finance terrorist operations in the Palestinian territories and in Israel. During that trial, the Department of Justice introduced ample evidence of the presence of the Muslim Brotherhood behind this charity and their activities inside the United States. Some of the most interesting documents come from a meeting at a Marriott Hotel, close to the Philadelphia International Airport. There, about 20 top Hamas and Muslim Brotherhood officials met in 1993. This was right after the Oslo Agreements had been signed. They talked about how their organization could continue their activities as they knew Hamas was about to be designated as a terrorist organization. This meeting had been bugged by the FBI. It's a fantastic spy story because the FBI has the tapes of everything these individuals said during the meeting. It's a fascinating read. Those gathered were debating their two conflicting directions: supporting Hamas but at the same time not looking to Americans as if they were supporting terrorism. Obviously, they faced a difficult situation. But they argued that the Brotherhood in the United States should have opted for a two-pronged approach that differentiated between its internal and external strategy.

Within the Muslim community, the group vowed to maintain its support for Hamas by collecting funds, hence the formation of the charity the Holy Land Foundation. Yet, at the same time, they sought to spread hatred of Israel and Jews among the American-Muslim community. And one participant was intercepted as saying, "We don't want the children of the American-Muslim community, who are raised here in our Islamic schools, to grow up surrendering to the issue of peace with the Jews." Participants discussed how to camouflage such views to the American public and influence policies and opinions. As one attendee argued, "This can be achieved by infiltrating the American media outlets, universities, and research centers, by working with Islamic political organizations and the sympathetic ones." One participant agreed that hiding the group's real aims when dealing with the American public was a necessary tactic. "I swear by Allah that war is deception. Deceive, camouflage, pretend that you're leaving while you're walking that way." Another stressed the importance of tailoring the discourse to the



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American sensitivity. He said, “Let’s not hoist a large Islamic flag.” And he argued that organizations should have nice sounding names, like Holy Land Foundation.

The one document that the pessimists have really used is an internal memorandum that was also introduced as evidence by the Department of Justice during the trial. It was written by a senior member of the Brotherhood in the United States, and in one of its points stated, “The process of settlement in America of the Muslim Brotherhood is a civilization, Jihadist process, with all the word means. The Brothers must understand that their work in America is a kind of grand Jihad in eliminating and destroying the Western civilization from within and sabotaging its miserable house by their hands.”

### The U.S. – European divide

There is a divide between the United States and Europe when it comes to government. The FBI and the Central Intelligence Agency in the United States tend to be neutral regarding these organizations. The Europeans tend to be very vocal about their concerns. The Dutch Domestic Intelligence writes, Not all Muslim Brothers or their sympathizers are recognizable as such. They do not always reveal their religious loyalties, an ultra-orthodox agenda to outsiders. Apparently moderate in their attitude toward Western society, they certainly have no violent intent. But they are trying to pave the way for ultra-orthodox Islam to play a greater role in the Western world. This is accomplished by exercising religious influence over Muslim immigrant communities and by forging good relations, with relevant opinion leaders—politicians, civil servants, mainstream social organizations, known Islamic clerics, academics, journalists and so on. This policy of engagement has been more noticeable in recent years and might herald a liberalization of the movement’s ideas. It presents itself as a widely supported advocate and legitimate representative of the Islamic community. But the ultimate aim, though never stated openly, is to create then implant and expand an ultra-orthodox Muslim block inside Western Europe.

Pretty tough words. They come from a government entity and Dutch Intelligence is quite well respected. But in the Netherlands, as in any other Western country, including the United States, there is no common

assessment. There is no white paper coming from the top and telling all branches of government, all agencies, and all government officials how to identify, assess and engage Brotherhood organizations. Positions swing erratically from the optimist to the pessimist point of view based on personal views, which in many cases are not informed by facts. And for a variety of reasons, politics also comes into play often, as you can imagine, creating a very chaotic situation.

### The case of CAIR

In the United States, this chaotic dynamic is exemplified by the FBI’s relationship with CAIR. This organization is arguably the most visible and controversial of the U.S.-based organizations that trace their origins to the Muslim Brotherhood. Opinions about CAIR could not be more divided within the FBI. On the one hand, we have FBI officials who have gone on record and publicly thanked CAIR for its role in “keeping the nation safe” and praising it for “its commitment to maintaining a dialogue leading to the frank and honest exchange of ideas.” In 2006, the Washington, D.C. FBI sent CAIR a commendation letter praising it for its “dedication in representing the heart of the Muslim-American community.” These officials are optimists. At the same time, top officials in the FBI, individuals like Steve Pomerantz, who was the former Assistant Director and former Chief of Counterterrorism at the FBI, has publicly stated that:

It is clear from a review of CAIR statements and activities that one of its goals is to further the agenda of radical Islamic terrorist groups by providing political support. By masquerading as a mainstream public affairs organization, CAIR has taken the lead in trying to mislead the public about the terrorists and their feelings of militant Islamic movements.

In the wake of the Holy Land Foundation terrorism financing trial in 2008, the FBI formally cut its ties to CAIR.

I’m singling out the FBI, but I could take examples from other organizations within the U.S. government—and within any Western government. The FBI specifically, unlike the Dutch Intelligence Agency mentioned earlier, has a very narrow mandate. The FBI looks at criminal cases. If you are breaking the law, the FBI opens a file on you and they are extremely tough. However, if



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you're not breaking the law, they don't look at you.

The Dutch Intelligence Agency has a broader mandate. It reviews all kinds of threats to society. It has a broader institutional mandate and approach. While Western Brotherhood organizations may not be engaged in criminal activities, they might have an agenda that is in the long term subversive. But in the United States, there is no agency that really looks at organizations that can be seen as subversive. By mandate the FBI doesn't look at anything that is not specifically a threat to national security. Several European intelligence agencies do look beyond national security threats and take a broader view. In the FBI, it is either black or white—criminal or good. In European intelligence, there is a gray area.

There is also the fact that CAIR, specifically when it comes to terrorism, plays games. In some cases they are extremely uncooperative. The hearings of Rep. Peter King in March 2011 were, of course, very controversial. Yet they highlighted one very interesting story of a Somali community leader in Minneapolis. Al Shabab, the al Qaeda affiliate from Somalia, has been targeting the Somali community in Minneapolis. Some 20 American Muslims of Somali descent have been going to Somalia to fight, and a few have actually died fighting there. So this community leader who testified before Congressman King's panel recounted how, when he reached out to the FBI to work with them, to stop this recruitment taking place in the community, CAIR and the other organizations ostracized him and started a smear campaign against him.

At the same time, we have had cases in which CAIR has been cooperative with the FBI. There was the case of five kids from Northern Virginia who went to Pakistan to obtain training from al Qaeda affiliates there. CAIR was contacted by individuals in the Muslim community and CAIR went to the FBI. Put yourselves in the FBI Director's shoes: you don't want to burn bridges with CAIR. Consequently, there is a kind of understanding that as much as they are not the ideal partners for the FBI when engaging the Muslim community, they are a necessary one.

### U.S. policy towards Brotherhood Organizations

How should governments interact with this organization? First, the issue is very complex.

Conceptualizing a movement that mixes politics and religion, particularly a religion about which most policymakers know very little, is extremely complicated. There is a lot of sensitivity in the United States, in particular, but in the West generally, about dealing with religion from a political point of view. Moreover, in some cases Brotherhood organizations display the kind of moderation and pro-integration stance that Western governments are so desperately seeking in their Muslim interlocutors. In other cases, it is apparent that they harbor an agenda and embrace values that are opposed to those of a Western liberal democracy. So policymakers understandably find themselves in a bind. Again, we go back to the pessimists and optimists, and what the extremes of the debate suggest.

Many pessimists call for policies that would exclude Western Brotherhood organizations from any engagement. They consider the Brotherhood deceitful actors seeking to destroy the same freedoms that have allowed them to flourish. Critics argue that these organizations should be marginalized or even outlawed. In this view, they are considered the political wing of a global Islamist insurgency. I think that, while this position highlights some troubling aspects of the Western Brotherhood organization's nature and agenda, this position is unrealistic and arguably dangerous. Western Brotherhood organizations do represent a cross section of the Muslim community. If the government's aim is to hear all voices, it makes little sense to exclude an important one. Talking only to those Muslim leaders whose positions square with the government's is not a constructive policy. When these groups act outside of the law, as when they provide financial support to organizations designated as terrorists, like in the case of the Holy Land Foundation, they should be prosecuted. However, since most of their activities are within the law, these organizations are a reality that cannot be ignored and should be engaged. Now the optimists argue that Western Brotherhood organizations are reliable partners that should be engaged in order to favor integration and stem radicalization. This approach is also very problematic. There is ample evidence showing that the aims of the Western Brothers do not necessarily correspond to those stated in public. So assigning an almost monopolistic



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control of the community to a handful of self-appointed leaders, whose aims are at best unclear, seems naive. I think there's a better way.

### Engage but don't empower

There is a preferred way that lies in between the optimist and the pessimist approach. It is what I call "engage but don't empower." This approach is developing to some degree in Europe; in the United States only to a lesser degree. It involves three steps. First, understanding that assigning a monopolistic control of the community to these organizations is mistaken. The Muslim community is extremely diverse. Speaking only to the most visible and vocal self-appointed representatives, the lowest hanging fruits, is a mistaken policy. Governments should be proactive and seek out many other organizations, many other voices, which might not have the structure, the sophistication that Brotherhood organizations possess. Yet they represent important cross sections of the community. So the activism and visibility of Brotherhood organizations should not be mistaken for universal representativeness.

Secondly, we need a more refined approach. There are indeed advantages in not isolating Western Brotherhood organizations. Although nobody can really predict the long-term developments, engagement could lead to a moderation of the movement. That is the approach taken for example in France. Isolation, in contrast could have negative repercussions, further radicalizing the movement and also allowing it to use the "martyr card" in the community. But this engagement needs to be based on a firm understanding of the history, characteristics, connections, modus operandi, and most importantly, aims of Brotherhood organizations. So only an informed engagement can lead to a realistic and constructive approach.

I think many policymakers are increasingly aware of the difference between engagement and empowerment. So establishing a permanent dialogue, and even occasionally limited forms of partnership with Western Brotherhood organizations, can produce some positive outcomes—particularly in the security field. I know that's controversial. Striking the right balance between engagement and

empowerment is not easy, but necessary not to give an undue advantage to these organizations.

Finally, as we look ahead, no organization is static and Brotherhood networks are evolving. The networks that were created some 40-50 years ago have changed with time. The first generation of pioneers, who created these networks, is slowly being replaced by a second generation of Western-born activists who will inevitably add their perspectives in guiding these organizations. So, today the debate is more moderate, more in line with Western attitudes and sentiments. These organizations' language is increasingly striking a chord with Western interlocutors. Is a genuine change taking place inside these organizations? Some scholars, especially French scholars, would argue that these organizations are like the Euro-Communists: in the 1950s they wanted a dictatorship of the Proletariat, they wanted to turn France into a Communist country linked to Moscow; yet, by the 1970s, they just desired fair wages and a good, cushy 35-hour-a-week work week. They were no longer dreaming of a Communist state. Some scholars argue this is what is going to happen with these organizations. They no longer want to implement that civilizational Jihad that the pioneers of these organizations talked about. They are just going to be a socially conservative force. Other people contend that this pro-democracy, pro-integration statement of the new generation is just a carefully devised smokescreen for the movement's more nefarious aims.

Only time will tell what's going to happen with these organizations. It is likely that, in this milieu, some of the organizations will go in one direction and others in a different direction. But for the time being, I think, given this uncertainty, a policy of cautious and informed engagement appears to be the most appropriate.

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### Close the Strait of Hormuz

#### Iran has more to lose than America in current standoff

Source: <http://www.washingtontimes.com/news/2011/dec/13/close-the-strait-of-hormuz/>

Iran is threatening to close the Strait of Hormuz. Go ahead, make our day. On Monday, Parviz Sarvari, a member of the Iranian parliament's national security committee, said, "Soon we will hold a military maneuver on how to close the Strait of

Persian Gulf region was the global center of oil exports. Whether the temporary halt of that much oil would have a serious impact is questionable. Past regional crises have not lived up to their billing. There were warnings before Operation Desert Storm that the war would create an oil shock of incalculable consequences. Speculators drove prices up before the conflict in 1990, but in 1991, oil prices declined, even with Kuwait's oil fields in flames. Similar warnings were heard regarding the disruptions that attended Operation Iraqi Freedom, but there were no gas lines, no chronic oil shortages. Iran would suffer more than the United States from closing the strait. Iran's economy is highly dependent on oil exports; closing the strait would cut off

Hormuz. If the world wants to make the region insecure, we will make the world insecure." Closing the strategically important strait has long been viewed as one of Iran's trump cards in the give-and-take with the United States and the West.

The impact of a strait crisis is overrated. About 17 percent of the world's imported oil, or a third of oil transported by sea, goes through the strait. This is significantly less than the percentages from decades past when the

most of that trade. Iran wouldn't be able to import gasoline and other necessary commodities, which some analysts think would be fatal to the regime. In the grand balance, a temporary increase in oil prices in the West would be far less injurious than the near total loss of oil revenue and gasoline in Iran.

It's not as though Iran could act with impunity. The "close the strait" crisis scenario has been



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floating around military circles for decades. The U.S. military has been training for that eventuality since the 1980s. Contingency plans have been war-gamed repeatedly and are ready to be implemented immediately. The question is not whether the mullahs could attempt to close the strait, but how much of their navy and air force would be lost in the process. Their ships and submarines would be sunk, their on-shore anti-ship missile batteries would be bombed, their aircraft would be downed, and any small craft in the area would have to vacate immediately or face destruction as part of security measures against attacks like that on the USS Cole in 2000. Special-operations forces would seize their offshore oil

derricks, and Marine landing forces would temporarily secure the Iranian side of the strait. Such a provocative act would give support to those who would argue for a more comprehensive response, such as deep strikes against Iran's nuclear facilities and regime command-and-control centers - which often would include leadership targets as well.

**If Iran tried to close the strait, it would be the biggest mistake the mullahs ever made. While they are rattling their scimitars, the question the Islamic regime in Tehran needs to ask itself is: What happens if the United States decides to ban Iranian ships from the strait? If the U.S. Navy closes the Hormuz, it will stay that way.**

## Urban Crisis Workshop

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## North Korea After Kim Jong II

Prepared by: STRATFOR



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Source: <http://www.isn.ethz.ch/isn/Current-Affairs/ISN-Insights/Detail?lng=en&ots627=fce62fe0-528d-4884-9cdf-283c282cf0b2&id=135321&contextid734=135321&contextid735=135317&tabid=135317&dynrel=4888caa0-b3db-1461-98b9-e20e7b9c13d4,0c54e3b3-1e9c-be1e-2c24-a6a8c7060233>

North Korea's stability is in question as the country tries to smoothly transition from the leadership of the late Kim Jong Il to that of

successor decades before taking over for his father, North Korean founding President Kim Il Sung, Kim Jong Un was only officially designated as his father's successor at a



his youngest son and chosen successor, Kim Jong Un.

Kim Jong Il had been the clearly designated successor to his father for decades before taking power, while Kim Jong Un was only officially selected in late 2010. But the way in which Kim Jong Il's death has been handled thus far, as well as China's continued support, demonstrate the interest that external forces and North Korea's elites have in keeping the succession in order.

### Analysis

The death of North Korean leader Kim Jong Il is raising questions around the region and world as to whether North Korean leadership can smoothly transition to Kim's son and chosen successor, Kim Jong Un. One concern is that Kim Jong Un, the youngest of Kim Jong Il's three sons, is thought to be between 27 and 30 years old and has had little formal training or preparation to lead North Korea. Unlike Kim Jong Il, who was the clearly designated

special conference of the Workers' Party of Korea in September 2010. And it was only in January 2009 that the younger Kim was purportedly announced by his father to internal North Korean leadership as the chosen next leader.

The impact of succession on North Korea's stability is significant because the country is not, as some outsiders portray it, a monolithic entity ruled by a single leader. Rather, the recently deceased North Korean leader, like his father before him, maintained rule over North Korea by balancing several different factions within the elite structure: the old guard revolutionary fighters; sons of martyrs; the military, the Workers' Party of Korea and the Supreme People's Assembly; various familial connections; and individuals and groups with various economic interests (overt or otherwise). It is with this management of the various personal and group interests among the North Korean elite that incoming leader Kim Jong Un has had little experience.





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The way in which the news of Kim Jong Il's death has come out of North Korea suggests that the North Korean elite are holding together, at least for the moment. It also suggests that while the timing of the death may have been unexpected, the response had been well prepared and agreed upon long before. Since Kim Jong Il's rumored stroke in 2008, the North Korean elite have focused heavily on the imminent leadership transition and the protection of their own interests, which are embedded in the continuation of the current North Korean political system. But even though Kim Jong Un lacks strong credentials and relations within the North Korean elite, he is not necessarily standing alone.

### The Lead-Up to Succession

The succession planning for Kim Jong Il goes back to 2001, when North Korean media began discussing the virtues of continued familial succession. But because Kim Jong Il had three sons, it was unclear who the successor would be, though the oldest son, Kim Jong Nam, was considered most likely. However, Kim Jong Nam's chances plummeted after an embarrassing detention in Japan in 2001 while purportedly traveling to Tokyo Disney on a false passport. The incident provoked many reactions inside North Korea; loose factions began forming around Kim Jong Il's three sons, pressing for influence in the choice of successor and continued influence in the successive regime.

A key player in the struggle has been Jang Song Thaek, the husband of Kim Jong Il's sister Kim Kyong Hui. Jang's aggressive lobbying for Kim Jong Nam to be the successor contributed to his brief dismissal from government and time in re-education from 2004 to 2006 on Kim Jong Il's orders. The concern among the top North Korean leadership was that lobbying around the different sons could undermine regime unity and stability and present an opportunity for foreign exploitation of the competition. In Pyongyang, this sense of danger was heightened with the concern that North Korea was a likely next target for the United States after the invasion of Iraq.



In general, the jockeying for influence in the succession process, and the building of support around the three sons, faded after Jang's temporary removal until Kim Jong Il's 2008 stroke. Jang, who had already rebuilt his reputation and influence with Kim Jong Il in part due to the intervention of Kim Kyong Hui, took over day-to-day operations in North Korea while Kim Jong Il was incapacitated. But with Kim Jong Il's convalescence, competition resumed. Not having a clear successor was seen as a risk to the entire North Korean elite, and various loose affiliations again formed around the three sons.

A loosely pro-China faction took shape around Kim Jong Nam, who was known to have well established ties in China, and counted on his leadership as a way to integrate Chinese economic guidance and cooperation to strengthen North Korea. Jang was among this group initially. Supporting second son Kim Jong Chol were some of the older members of the military, who wanted to decrease what they saw as North Korea's over-dependence on China and hoped for expanded economic ties with South Korea and even the United States. Due to his age, there was little expectation that third son Kim Jong Un would be picked, but perhaps as a way to balance the internal competition, Kim Jong Il had reportedly chosen Jong Un as his successor by January 2009. The youngest Kim purportedly had the backing of key elements of the military, which would likely wield greater influence over him due to

his inexperience. He also was thought to have the backing of Jang, whose allegiance shifted as he saw Kim Jong Il's choice coming.

### Kim Jong Un's Prospects

The likelihood that Kim Jong Un has the backing of core elements of the military and of Jang, who has been working closely with Kim Jong Il in leadership since 2008, suggests that the transition is unlikely to be overly disruptive, at least in the near term. In addition, there is strong Chinese support for a smooth transition and the continuation of Chinese economic and political influence in North Korea.



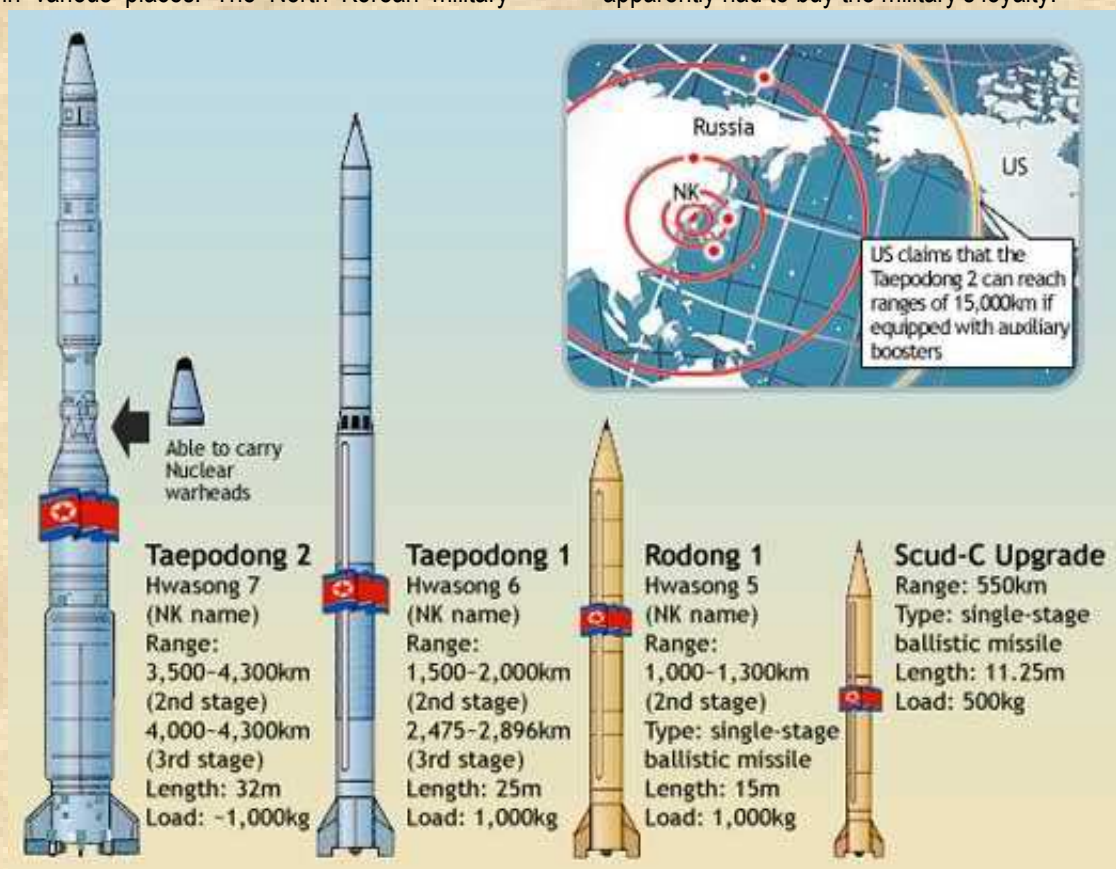
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One sign of clear preparation and coordination between the two nations has been the way the death was announced. According to the North Korean timeline, Kim Jong Il died on the morning of Dec. 17, but the announcement was not made until noon on Dec. 19. The information was not leaked, nor was there an apparent change in North Korea's military posture (though some media later reported that North Korean guards on the border of China were put on alert in the early morning of the Dec. 19). Moreover, the announcement was followed shortly by a prepared list of individuals responsible for the funeral committee and calls to support Kim Jong Un as the successor to the revolution.

Thus far, things appear very orderly in North Korea. A mourning period has been set through Dec. 28, the day of the funeral, which will allow the North Korean internal security forces to keep things under control at home, since the mourning period is likely to include the closure of businesses and perhaps curfews in various places. The North Korean military

exercises, so there was apparently no need to increase the security posture of troops. It appears that the only place with a more overt show of force is along the Chinese border, which is known to be both an area of lower political reliability and a potential entry point for external instigators to try to slip into North Korea to exploit the transition.

This does not mean that things will continue to be smooth. It took Kim Jong Il more than three years to fully solidify his authority after the death of his father in 1994. During that consolidation of rule, Kim Jong Il was faced with crop failures, natural disasters and rising food shortages — problems that led international observers to declare North Korea in famine conditions. Kim also had to firmly establish his authority among the North Korean elite. This reportedly included purges and state executions and saw the defection of Hwang Jong Yap, the highest-level North Korean defector. Kim's policy of "Songun," or military first, was key to this consolidation, as Kim apparently had to buy the military's loyalty.



has already been on a slightly heightened state of alert regarding recent South Korean military Internationally, the time between Kim Il Sung's death and Kim Jong Il's consolidation of authority saw continued infiltrations into South

Korea through 1996 (ending with the election in the South of long-time dissident and pro-democracy



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figure Kim Dae Jung). It also saw North Korea sign the Agreed Framework with the United States, ending the existing nuclear crisis. North Korea also completed building the Taepodong missile and tested it as a way to signify Kim

Jong Il's completion of the power transition. In short, North Korea maintained its basic strategy of survival established by Kim Il Sung a few years earlier, mixing conciliation with provocation.

### Mitigating potentially weaponized natural phenomena

By Batrt Kemper, P.E.

Source: [http://www.linkedin.com/news?viewArticle=&articleID=996950043&gid=1946022&type=member&item=86719059&articleURL=http%3A%2F%2Ffeedurl.com%2FhYmvM&urlhash=4DzG&goback=.gde\\_1946022\\_member\\_86719059](http://www.linkedin.com/news?viewArticle=&articleID=996950043&gid=1946022&type=member&item=86719059&articleURL=http%3A%2F%2Ffeedurl.com%2FhYmvM&urlhash=4DzG&goback=.gde_1946022_member_86719059)

Traditionally, chemical attacks are seen as military

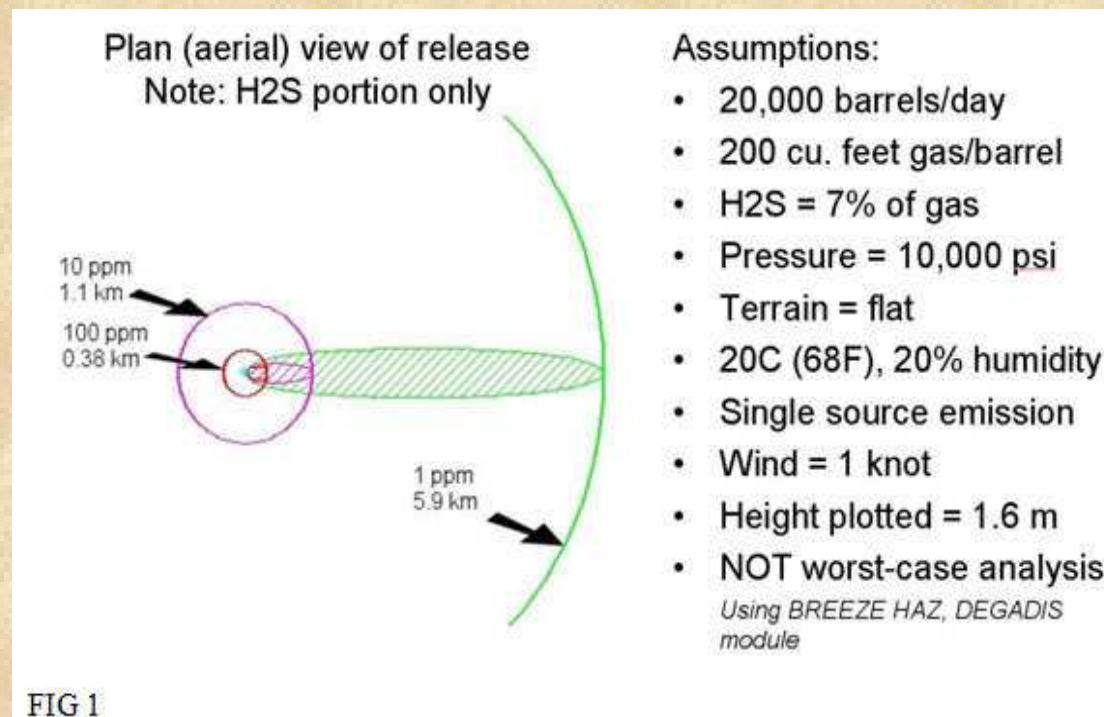


**CBRN**  
Resource Network

bombs or home-brewed releases. Some of the original chemical attacks in WWI used industrial gasses such as phosgene. Similarly, industrial sites can be used to create a chemical attack, which is since September 2001. However, the potentially more pernicious attacks could use naturally occurring phenomena, such as “sour gas” oil fields.

“Sour gas” oil fields are called such due to the high concentrations of hydrogen sulfide (H<sub>2</sub>S). It combines with blood chemistry the same way as cyanide. At 3 parts per million (ppm) it is

egg” smell. At 100 ppm it overwhelms the olfactory nerves and sickens the victim. At 600 ppm it can have a knock-out effect and can be lethal in 30 minutes. Slightly more exposure, such as 800 ppm, and death is in minutes. Exposure is cumulative. Since cartridge-style protective masks are ineffective, personnel would have to have Self Contained Breathing Apparatus (SCBA) for protection. SCBA is logistically intensive for sustained operations. The northern oilfields of Iraq are “sour.” During the preparation for the 2003 attack there were many questions of how to secure the oilfields and safely operate in the region. Wellheads could not only be damaged by combat actions, they could be sabotaged by being pulled open by trucks or blasted open with a small amount of explosives. The main highway from Turkey travels south through the Kirkuk area in the



hazardous and can be detected by a “rotten

heart of the oilfields, then



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continues down to Baghdad. This is a key route for both forces.

Given military personnel are not equipped with SCBA and fielding a large force with SCBA would be logistically prohibitive, a large H<sub>2</sub>S release would act as a persistent chemical agent and block operations. Civilians do not have any protective equipment, let alone SCBA, so any such action would also kill many civilians. Saddam Hussein had already demonstrated complete willingness to slaughter thousands of his own citizens, so the possibility of civilian deaths was not seen as a deterrent to weaponizing the northern oil fields to block a northern attack. This heightened the need to quantify and mitigate this threat.

sources. Military engineers and chemical warfare specialists used these estimates to perform risk-based decisions, develop contingency plans, and to continually update the potential H<sub>2</sub>S threat in key areas. These estimates were also used to develop actions that safeguarded the northern oilfields.

The National Ground Intelligence Center (NGIC) later produced a full scale model with hundreds of wellhead releases, factoring in full 3-D terrain and weather effects. This simulation used classified high-definition topographic information and mainframe computers. The results were presented in an unclassified briefing at George Mason University and are shown in Fig. 2 below.

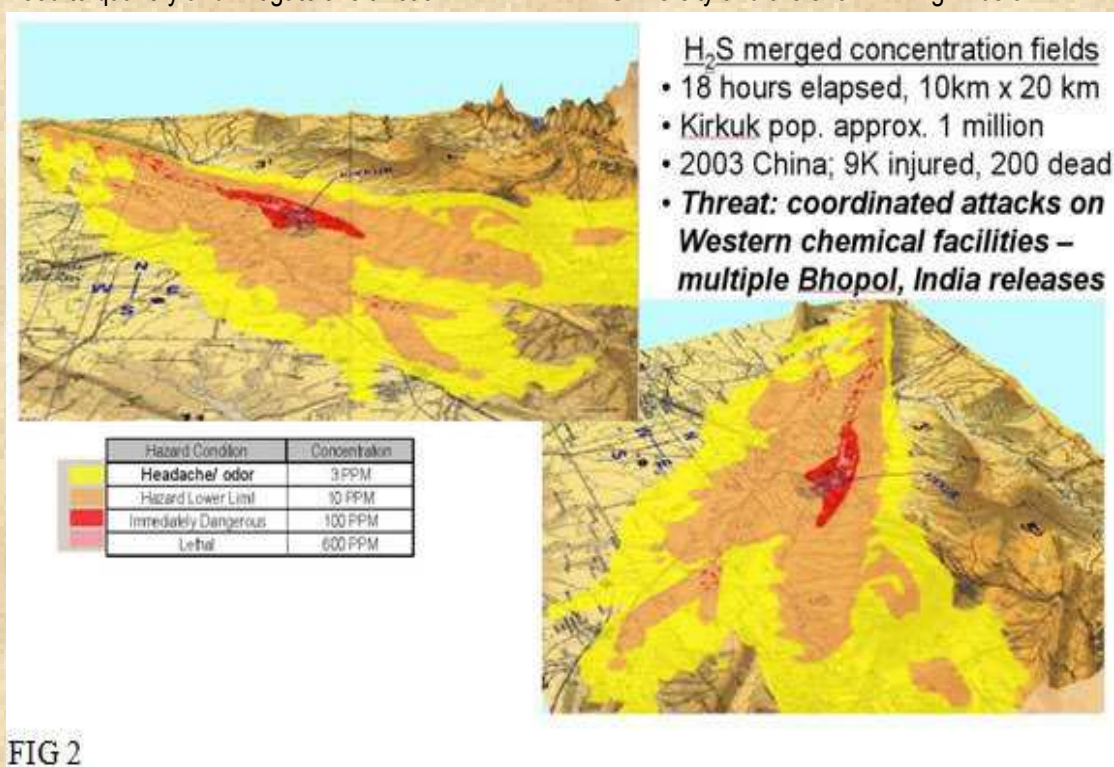


FIG 2

Initial efforts used HAZ, a commercially available software package from BREEZ Software that models chemical releases, fires, and other industrial hazards. Open source information of the region's oilfield chemistry and a typical release was rapidly determined. Different wind speeds, terrain roughness values, and weather conditions were modeled to develop a range of chemical plume geometries. An example of one of the plumes is shown in Fig. 1 below. These results were used by CBRNE personnel to update local threats due to known wellhead locations. Given H<sub>2</sub>S is cumulative and these would be persistent sources, overlapping plumes gave a reasonable estimate of the effects of multiple

There are two main significances to this potential CBRNE event. The first is the use of industrial software to develop timely military estimates for use in planning and operations. Government resources stateside did not provide a timely response to plan operations and safeguard the oilfields. The other significance was the commercially available industrial software results, combined with the estimates by experienced CBRNE personnel, was validated by the more comprehensive simulation.

Other regions have sour gas fields. In 2003 China had a H<sub>2</sub>S release that killed over 200 people and sickened over 9000.



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Geothermal energy, natural gas, and methane could also be weaponized. This adds to the disaster preparation requirements in regions that have natural phenomena that could be weaponized in addition to chemical facilities,

pipelines, and transportation containers. However, the same methods can be used to quantify the potential threats and develop mitigation techniques.

*Bart Kemper is the President of Kemper Engineering Services, LLC of Baton Rouge, Louisiana. A graduate of the U.S. Army Engineer School and Louisiana State University and Agricultural and Mechanical College, Kemper served as a lead structural, mechanical and security engineer with the U.S. Army, where he also commanded military units.*

### Hospitals continue to focus on being ready for disaster

Source: [http://billingsgazette.com/news/local/hospitals-continue-to-focus-on-being-ready-for-disaster/article\\_54ba3646-4413-5816-8af7-795cb9298c40.html#ixzz1huZi6TjB](http://billingsgazette.com/news/local/hospitals-continue-to-focus-on-being-ready-for-disaster/article_54ba3646-4413-5816-8af7-795cb9298c40.html#ixzz1huZi6TjB)

In less time than it takes to have a pizza delivered, Billings Clinic's Hazardous Materials Response Team can be ready to treat patients from a major chemical spill in the area.

A team of more than 100 people can mobilize — with a dozen of them suited up in protective hazardous material gear — and have a portable patient decontamination tent set up outside of the hospital in about 20 minutes.

At a recent drill at the clinic, a small group of employees did just that, relying on equipment and training paid for in part with federal grant money through the Hospital Preparedness Program.

Despite recent decreases in that funding, hospital officials in Billings say they'll continue to put a premium on preparing for large emergencies and disasters.

"It's happening across the country," said Joe Marcotte, Billings Clinic's director of safety and emergency management. "Funds are being cut from preventative programs and preparedness. There's a lot of open-endedness with the government going through what it's going through."

Since 2002, hospitals across the country have used those grants as an important supplement in their efforts to purchase equipment and train for major emergencies and disasters.

In mid-December, the Appropriations Subcommittee on Labor, Health and Human Services, Education and Related Agencies reached an agreement to provide \$352.41 million in grants for fiscal year 2012, about 7 percent less than in 2011.

"As to whether or not it will ever completely go away, it is congressionally authorized and we expect that funding will continue," said Dayle

Perrin, hospital preparedness coordinator with the Montana Department of Health and Human Services, which distributes the money throughout the state. "If the money goes away — I can't really predict that — I know hospitals still take very seriously their duties to take care of the community."

Grants are distributed to all 50 states, U.S. territories and a handful of large metropolitan areas by the U.S. Department of Health and Human Service's Office of the Assistant Secretary for Preparedness and Response.

They've provided more than \$6 million in direct awards for emergency preparedness to dozens of hospitals across Montana since 2006. Nationally, they provided almost \$378 million in 2011, with \$1.5 million coming to Montana.

Perrin said that in 2011, 57 hospitals and medical facilities in Montana received money. Seven of Montana's Level II and III trauma centers, including St. Vincent Healthcare and Billings Clinic, each received \$30,000 annually over the most recent three-year cycle, which ends with the 2011 distribution. Smaller hospitals receive \$15,000 annually.

The money goes toward emergency equipment and training, largely dependent on the individual facility's needs. It must be used for emergency preparation or situations involving a surge of patients.

"It's anything that enhances their abilities, either as an organizational response or as an individual clinical response," Perrin said.

Jason Mahoney, St. Vincent's emergency preparedness coordinator, said the hospital has purchased equipment such as hazmat gear, respirators and



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breathing equipment, access control systems, patient tracking and portable sleds to move patients down stairs in the event of an emergency.

Due to heavy flooding across the state in 2011, it also picked up new flood-mitigation gear.

"We count on it for this type of equipment," he said. "It supplants the budget for us. It isn't always big flashy stuff. Sometimes it's very utilitarian stuff, that's very useful when we need it."

The hospital's regular budget covers training and drills. If the funding dries up, which Mahoney thinks is unlikely, the hospital would still be ready for an emergency.

"It's in our budget with or without the grants," he said. "We'll do our best to do what we can in any event, especially since we're already paying to maintain it through our current budget. Whether or not we get that money, we will be prepared."

To Mahoney, one of the greatest benefits of the grant money is that, due to the steady stream of new equipment, it establishes a training cycle.

"We need to make sure we're trained to use it so it's going to prompt training, it's going to prompt policy procedure drafting," he said. "It's truly a continuous thing."

Billings Clinic uses the money for equipment and training. In addition to hazmat and decontamination gear, the hospital has bought incident command software, a mobile emergency trailer, communications equipment, internal management training and items such as computers and projectors to assist in training.

"The good thing is that we've got most of the equipment we need now," said Jason Banfield, a Billings firefighter who also works as Billings Clinic's hazmat specialist. "The money from here on out will be needed mostly for training and upkeep."

Both Billings hospitals include emergency preparedness as part of their annual budgets, regardless of federal funding. But the grants give them a boost of new equipment and play a role in upkeep and maintenance.

"This stuff has a shelf life," Marcotte said. "When you spend \$200 to \$500 a (hazmat) suit, and we have about 24 that we rotate out every three to five years, there's a lot of those things to consider."

With the upcoming decrease in federal grant money, or if it went away altogether, officials

from both of Billings' hospitals said the preparedness programs would continue but that they'd have to cut back on emergency preparedness spending to make room in their budgets.

Mahoney said the 2012 decrease probably won't impact St. Vincent's plans or operations but that, in the event of a significant cut, they'd buy less new equipment.

"We're required to have emergency preparedness by our oversight bodies," he said. "There's no way it could go away."

Nikkie Stephens, St. Vincent's lead respiratory therapist and a member of the hospital emergency response team, said the equipment and training are simply too important to cut.

"With everything that's around us, you never know what's going to happen," she said. "When you're taking care of patients, you're not going to want to be underequipped or unprepared."

Marcotte said Billings Clinic would also cut back on new purchases in the event of further cuts and use equipment longer before replacing it.

"We'd still use some of our funds to purchase new equipment but we wouldn't purchase nearly as much as we do now," he said.

The program began in 2002 to bolster hospital readiness in the event of a biological attack after the 9/11 terrorist attacks.

In 2006, the Office of the Assistant Secretary for Preparedness and Response was established and took over the grant distribution, shifting the focus from bioterrorism safety to an "all-hazards preparedness approach," according to the U.S. Department of Health and Human Services.

That includes chemical spills, attacks and natural disasters.

"We've just seen the hospitals work so very hard to improve their capability for addressing a surge of patients," Perrin said.

While how much Montana will receive in 2012 hasn't been decided, the state Department of Public Health and Human Services hopes to minimize the funding cuts on facilities across the state.

The department uses more than \$150,000 annually in grant money to pay for statewide training sessions and travel costs.

Perrin said she hopes to take a look at those activities, as in years past with funding cuts, and figure out which ones to cut down on to save money for the hospitals.



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"We adjust our activities," she said. "It's just that kind of balancing that you have to do. I think we'll be able to maintain at least a very close level of funding for the hospitals."

As for the hospitals, officials say they'll find a way to ensure they're prepared regardless of funding.

"You've got to figure out a way to work it into the budget," Marcotte said. "The training, the equipment, will go on no matter what. We have to do it."

### Cancer concerns mount over TSA body scanners

Source: [http://articles.sun-sentinel.com/2011-12-25/news/fl-tsa-scanner-concern-20111223\\_1\\_body-scanners-backscatter-machines-millimeter-wave-scanners](http://articles.sun-sentinel.com/2011-12-25/news/fl-tsa-scanner-concern-20111223_1_body-scanners-backscatter-machines-millimeter-wave-scanners)

Airport body scanners like those used in Fort Lauderdale and Orlando may pose a significant cancer threat, particularly to those over age 65 and women genetically at risk of breast cancer, some medical experts warn.

Because the scanners' low dose of radiation penetrates just below skin level, it could imperil the lens of the eye, the thyroid and a woman's

The scanners in question use backscatter technology to create an image of a passenger, enabling security officers to see whether dangerous items are hidden beneath clothing. The problem, Dauer said, is the machines emit ionizing radiation.

"Ionizing means it knocks the electrons out of your body, which breaks your DNA chain, which can cause death or cancer," he said.

The TSA has installed about 250 of the scanners at 40 U.S. airports, including 10 Fort Lauderdale-Hollywood International Airport. Backscatter machines also can be found in the Los Angeles, Chicago and Boston airports and at New York's JFK.

The agency also uses more than 540 millimeter-wave

scanners, considered a safer option because they don't rely on radiation. Those machines are in use at Miami and Palm Beach international airports.

After a PBS/ProPublica investigation found the backscatter scanners could cause six to 100 cancer cases per year among U.S. passengers, European authorities prohibited their use at all European airports.

That prompted a renewed wave of concern in the United States.

"Why would you buy a machine that emits radiation if you could buy one that didn't?" said Broward County Mayor John Rodstrom, a



breasts, said Dr. Edward Dauer, head of radiology at Florida Medical Center in Fort Lauderdale.

"I think it's potentially a real danger to the public," he said, noting that even a small dose could be risky for people predisposed to cancer. "This is an additional exposure."

The Transportation Security Administration insists the scanners are safe and cites independent studies, saying the radiation levels are far below acceptable limits. Still, a growing chorus of scientists and doctors say that even a small dose of radiation could pose unnecessary danger.



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frequent flier who makes it a point to avoid the scanners.

At Rodstrom's urging, the Broward County Commission asked the TSA to consider

removing backscatter scanners from the Fort Lauderdale airport – unless the agency can prove the machines are safe.

### Goodbye, Babylon: A Times photographer reflects on end of Iraq war

By Luis Sinco

Source: <http://framework.latimes.com/2011/12/25/times-photographer-on-end-of-iraq-war/#/0>

On Sunday morning, Dec. 18, I received a



mass email from President Obama, informing me that the last of our troops had left Iraq.

The war is over.

To me, the final figures, reported in The Times, are staggeringly unreal: Nearly 4,500 U.S. soldiers died. An estimated 104,000 to 113,000 Iraqi civilians died. The U.S. spent in excess of \$832 billion on a war that lasted more than 3,000 days. Approximately 150 journalists died covering the conflict.

Amid the retrospectives and requiems marking the war's end, I've tried to find meaning from my experience in it. Many political pundits say it was all a big mistake and a terrible waste. I try to push these

thoughts aside. It has to mean something, at least to all those touched by the war.

Almost daily, images from the war cross my mind, like an endless loop of film.

I remember a woman wailing in grief over her mortally wounded grandson in the streets of Baghdad. The 8-year-old was tagging along behind a squad of American soldiers who came under attack. He was struck by grenade shrapnel and died at the hospital. I wonder if nine years has dulled that grandmother's anguish. I think about the soldiers I met from places like Tracy, Visalia and Watts and remember families, grieving at funerals across the state. The war produced a lot of tears in many places.





## 2012

Doc Lopez and Muston? We've drifted apart, and I hope they are OK. I remember a kid named Gavriel. I took his picture in combat. A short time later, he was killed.

"Let them eat stone soup!" I once heard a soldier exclaim to no one in particular. We had just been enveloped in a booming shock wave and saw the brown and black plume of a large

Burned into my mind is the acrid smell of billowing, black smoke from the huge trash fire at Camp Anaconda in Balad, fed by a steady stream of waste, raging around the clock and lighting up the night sky. I remember a USO show for the troops there, featuring Wayne "Mr. Las Vegas" Newton and a merry band of B-listers. It was surreal and entertaining. I wondered how many of the kids even knew who Newton was.

I recall touring the ruins of ancient Ur, the birthplace of the prophet Abraham, whose sons Isaac and Ishmael spawned the great monotheistic faiths of Judaism, Christianity and Islam — peoples that have been in conflict for much of the ensuing 2,000 years. Ur was located in the middle of the Italian military base in Nasiriya, and you could get cold beer and



car bomb rising in the distance, over the flat rooftops of Baghdad. It was as if I saw the spirits of the dead swirling in the angry, bubbling cloud. We later learned that more than 30 children perished in the blast. They too were trailing American soldiers, hoping to get handouts of candy from a passing convoy when the car packed with explosives detonated.

A lasting impression is how young the warriors were on both sides. It was shocking to see young men — boys really — sprawled dead in awkward positions on the ground. I remember the scorch of sun-baked armor plating on bare skin, and the smell of decomposing flesh. I photographed ashen tendrils of white phosphorous artillery rounds raining down from the daytime sky. The Pentagon and other U.S. officials first denied, then later admitted that troops had used it against insurgents, but not on civilians, which is forbidden by the Geneva Convention. I drank water made hot by triple-digit temperatures, and swatted away swarms of flies that bred in the corpses littering the streets of Fallujah.

wine there.

Sometimes I think of Marine Lance Cpl. Carpenter, sprawled flat beside me in a gutter in Fallujah, where we spent a rainy night under insurgent fire sheltered only by a 6-inch-high curb. What has happened to Maldonado, Fleharty, O'Rourke,



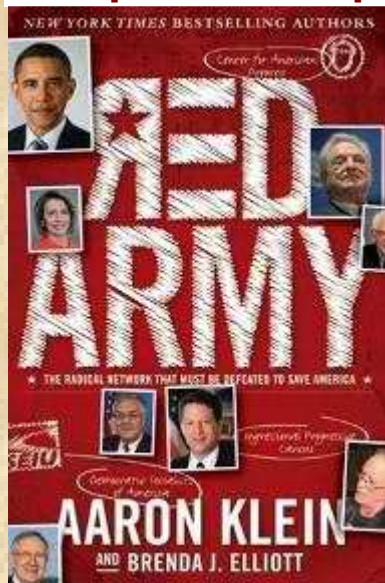
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I think of a girl in Mosul, standing at the gate of her home, holding a pet bird and watching American troops clear the streets of Iraqi protesters near the site where Saddam Hussein's sociopath sons, Uday and Qusay,

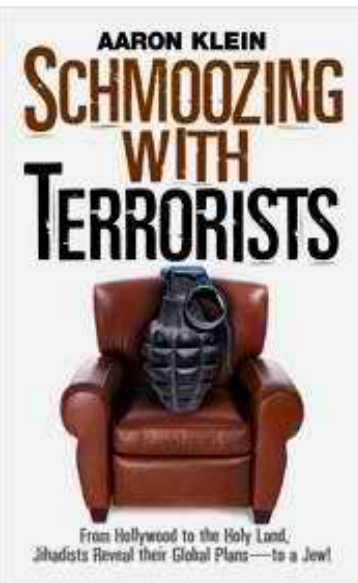
were cornered and killed. It was very early in the long and arduous war. Maybe she's all grown up. Same with the group of boys I photographed swimming in an irrigation canal in southern Iraq. By now, they should be young men. I feel compelled to mark the war's passing, if only with this post and gallery, reliving and sharing the realities I witnessed and documented in pictures for the Los Angeles Times in 2003 and 2004.

### Perhaps a different perspective



◀ How a nexus of radical socialist groups have seized political power, shaped Obama's presidential agenda, and threaten the very future of our country.

Aaron Klein, WorldNetDaily's Jerusalem Bureau Chief, invites readers into the dangerous world of some of the most perilous terrorist organizations in the world. Follow him into terrorist zones as he confronts militants whose goals are to destroy the U.S. ▶



## The Muslim Brotherhood in the Arab World and Islamic Communities in Western Europe<sup>1</sup>

Source: [http://www.terrorism-info.org.il/malam\\_multimedia/English/eng\\_n/html/ipc\\_252.htm](http://www.terrorism-info.org.il/malam_multimedia/English/eng_n/html/ipc_252.htm)





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itself in a forward position from which to attain power than for others who participated in the protests in Tahrir Square, as can be seen by its success in two of the three election rounds for the People's Assembly.

**The Muslim Brotherhood in Egypt**

5. The **Muslim Brotherhood** was founded in Egypt by **Hassan al-Banna** in the early 20th century. Over the years it grew to become the biggest and best-established of the Muslim Brotherhood movements in the Middle East and beyond, and one of the central movements of political Islam.

6. The success of the Muslim Brotherhood in Egypt is rooted in a combination of ideology, politics and social work. Ideologically, it is perceived as an authentic response to the hegemony of "Western occupation," and attracted its following from among people who had been disappointed by other ideologies. It also found a foothold in the educated urban middle class using its vast socio-economic system, the *da'wah*, to win the battle for hearts and minds. It focused on responding to the problems of the ordinary man in the street through its broad social welfare programs, which included education and health care, along with preaching in its network of mosques. They often supplanted dysfunctional state institutions and became an effective social network for the dissemination of the Muslim Brotherhood's religious and political ideas.

7. The Muslim Brotherhood in Egypt is hostile to Israel because of its fundamental ideology.

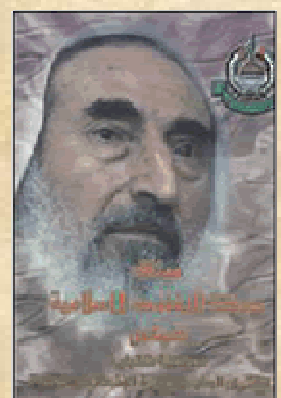
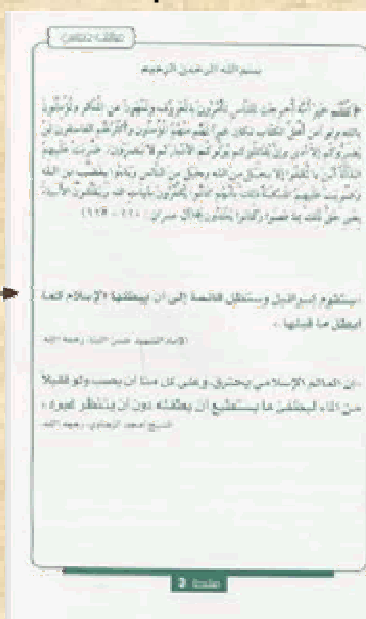
The movement regards all the land of Palestine as an Islamic endowment (*waqf*), rejects the State of Israel's right to exist, promotes an uncompromising jihad against Israel, and absolutely rejects

peace treaties and normalization with Israel. In addition, it is consistently anti-Semitic and spreads anti-Semitism, either rooted in Islam or based on *The Protocols of the Elders of Zion*. Publicly, however, it sometimes represents itself as moderate and pragmatic because it considers its image in the international community as important.

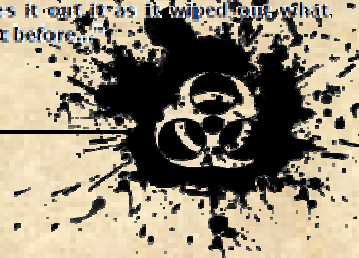
8. The Muslim Brotherhood opposes Al-Qaeda's global terrorism, but supports violent actions carried out by Islamic networks against the Western "occupations" of Iraq, Afghanistan and elsewhere. As for the use of terrorism in the Palestinian-Israeli conflict, it support terrorism as employed by Hamas, its Palestinian branch. Both inside and outside Egypt, the Muslim Brotherhood maintains close relations with Hamas and provides it with political, propaganda and financial support.

9. The Muslim Brotherhood is not monolithic, it has pragmatic and moderate elements, including those which genuinely seek to combine pragmatism, real democracy and political tolerance with Islam. However, in our assessment, the combined weight of those elements, at least at this stage, is less than that of the more conservative and radical elements. That can clearly be seen by the appointment of conservative Mohammed Badie to the highest position of General Guide.

**The quotation from Hassan al-Banna.**



A quotation from Hassan al-Banna, Muslim Brotherhood founder, at the beginning of the charter: "Israel will arise and continue to exist until Islam wipes it out it as it wiped off what went before."





Mohammed Badie, the Muslim Brotherhood's General Guide  
(Photo from the Muslim Brotherhood website).

10. After Mubarak was overthrown, the Muslim Brotherhood, which had been outlawed by his regime, became a legitimate political force and the best organized one in the country. It won a sweeping victory in the first two of three rounds of elections for seats in the People's Assembly (the lower house in the Egyptian parliament): according to the reports, the Muslim Brotherhood-backed Freedom and Justice party won 40% of the votes in the first round and 47% in the second. The Salafist El-Nour party, with its rigid, radical, ultra-conservative ideology, won 20% of both the first and second rounds. On the other hand, the liberal parties which participated in the protests in Tahrir Square were roundly defeated.

11. The Muslim Brotherhood's success in the elections may present it with a dilemma, whether to unite with the Salafist parties or not. In our assessment, at this stage the movement might find it preferable to dissociate themselves from Salafists, despite its victory at the polls. It might preserve its moderate front, attempt to form a coalition with the secular parties and collaborate tactically with the army to create checks and balances and share power within government institutions. It would do that without losing sight of its long-term goals by relying on its strength in parliament, which would allow it to influence the nature of the constitution and use that in turn to influence relations between religion and state and the status of the army in the governmental system.

#### The Muslim Brotherhood in Other Arab Countries

12. By the 1930s and '40s branches of the Muslim Brotherhood were being formed in other countries in the Arab world. One of the most prominent was in Syria, at the time considered second in size only to the Egyptian branch. Branches were founded and grew in Jordan, Algeria, Sudan, Morocco, Saudi Arabia, Tunisia and the Gulf States; Hamas was established as the branch of the Muslim Brotherhood in the Palestinian arena. An analysis of how the movement operates in those countries and what the relations are between its branches and the regimes shows that they vary from country to country and are influenced by and adapt to local societal and politician conditions, including national, sectarian, and religious conditions.

13. Following its worldview, which stresses all-pervading societal changes, and in view of the strict line it takes against the various regimes, in most of the Arab states the Muslim Brotherhood has focused on constructing its social infrastructure (the *da'wah*) and winning the battle for hearts and minds, demonstrating a considerable degree of pragmatism and the willingness to restrain itself in the face of persecution to ensure its long-term survival. In several countries it has integrated into political institutions, in most cases as a tolerated opposition and in others even as a collaborator in joint political challenges. In two exceptional cases, Syria and the Palestinian Authority, the Muslim Brotherhood and Hamas (the Palestinian branch of the Muslim Brotherhood) were involved in violent actions against the regime. In Syria in 1982 that involvement failed, while in the Palestinian Authority in 2007 Hamas was successful and took control of the Gaza Strip.

14. In Jordan, for example, the Muslim Brotherhood was not traditionally a significant opposition force and did not seriously threaten the Hashemite regime, and at various times was even included in the governmental system. In Sudan the movement has enjoyed periods of incorporation into the government and wielding political



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influence as well as periods of persecution and oppression. In **Algeria** the movement eventually became part of the government of President Bouteflika. In **Saudi Arabia** the regime gave Muslim Brotherhood activists political asylum but has reservations about it. In **Qatar** the movement has government support and in **Kuwait** they have been incorporated into the parliament. In **Tunisia** the Al-Nahda party, affiliated with the Muslim Brotherhood, was persecuted by the government until it won the elections after the Jasmine Revolution.

15. In **Syria**, on the other hand, the Muslim Brotherhood headed the 1982 uprising against the Hafez al-Assad regime, which broke out in the Syrian town of Hama and was brutally suppressed. The movement was subsequently outlawed and for the most part continued its activities outside Syria. Today it participates in the uprising against Bashar Assad, part of a broad coalition of opponents to his regime. In the **Palestinian Authority** Hamas, the Palestinian branch of the Muslim Brotherhood, participated in the 2006 Palestinian Legislative Council elections, but later, in June 2007, **it a series of violent military maneuvers it overthrew Fatah and the Palestinian Authority and took political and security control of the Gaza Strip.** To this day, the case of the Gaza Strip is an exceptional example of the establishment of a governmental entity by a movement affiliated with the Muslim Brotherhood which took power by means of a military coup d'état.

16. As a precautionary measure **to avoid administrative responsibility and involvement in daily politics, in most of the Arab states the Muslim Brotherhood has established political parties affiliated with it as a front for their political activities:** In the recent elections in **Egypt** the movement operated through the Freedom and Justice party; in **Jordan** it established the Islamic Action Front; in **Algeria** it established the Movement for the Society of Peace; in **Sudan** it established the Islamic Charter Front and later the National Islamic Front; in **Lebanon** it is affiliated with an organization called Al-Jamaa al-Islamiya; in **Morocco** with the Moroccan Justice and Growth party; in **Tunisia** with the Al-Nahda party, which was persecuted by the authorities

until the Jasmine Revolution, after which it won the elections and is now the country's main political power; and in **Kuwait** it established the Islamic Constitution Movement. In **Saudi Arabia** the Muslim Brotherhood was not permitted to establish a political party. In **Syria** the movement preserved its identity as the Muslim Brotherhood, but this past year its leader expressed his readiness to turn it into a political party.

The Muslim Brotherhood in the Wake of the Regional Uprisings

17. While the **Muslim Brotherhood did not play a dominant or central role in the dramatic events which rocked the Arab world throughout 2011, it would seem to have profited most from the changes which occurred in several Arab countries.** It would seem that the various Muslim Brotherhood movements exploited the historic moment to translate their social strength into significant political power, while keeping a low profile. Their tactics are currently circumspect, they play down or hide their extremist ideology, present a moderate face to the Western world, are politically correct with the media and join other protest groups whose ideologies are different from theirs.

18. In certain instances, the movement **has joined a broader coalition of political or social opposition forces, along with groups of young or left-leaning liberals who participated in the protests.** However, later on, if and when the protests mature into significant socio-political changes, **the Muslim Brotherhood may abandon its current discretion and will not hesitate to confront its protest partners. Under such conditions it will attempt to become a legitimate political force, widely visible, seeking to impose its Islamist agenda and become the dominant force among the regimes and societies in the various Arab states.**

19. In some of the Arab states, following the regional uprisings, **the Muslim Brotherhood is undergoing the transition**



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from persecuted or tolerated opposition movement to an important political force which may become an active partner in the newly-forming political systems. There are signs in several countries that the process has already begun. In **Egypt** the Muslim Brotherhood had turned into an important, legitimate political force and won two of the first three rounds for seats in the parliament (40% of the seats in the first round and 47% in the second, as noted above). In **Tunisia** the Al-Nahda party, whose activity had previously been forbidden, has, after winning 40% of the parliamentary votes, become a major political force. In **Morocco** the Justice and Development party won the largest number of seats in the parliamentary election, 107 of 395, or 27%, and became the major opposition party. In other Arab countries, where the struggle is still going on, the Muslim Brotherhood has joined protest groups, both those seeking to overthrow the regime and completely change the political system, such as Syria, and at this stage those seeking to change the system from within, such as Jordan.

20. The recent regional uprisings have also influenced the **Palestinian arena: Hamas and the Muslim Brotherhood in Egypt have publicly grown closer and strengthened their ties**. Throughout 2011 the Hamas leadership in the Gaza Strip met with high-ranking Muslim Brotherhood officials in Cairo, which Hamas regards as a way of obtaining leverage with the Egyptian army and government as well as improving its position with regard to Fatah and the Arab world.<sup>3</sup> Another example of the influence of the regional uprisings is the ongoing Hamas exodus from Damascus and its leadership's removal to other locations.<sup>4</sup>



Khaled Mashaal (right), head of Hamas' political bureau, and Mohammed Badie, the

Muslim

Brotherhood's General Guide, meet in Cairo, August 10, 2011 (Janobiyat.com website)

### The Muslim Brotherhood in Europe

21. The main catalyst for the expansion of the Muslim Brotherhood beyond the borders of Egypt, including to Europe, was **Egyptian President Nasser's suppression of the movement in 1954**. Large, well organized groups of Muslim Brotherhood members **fled in the 1950s to Saudi Arabia and Qatar**. A third, less cohesive group, fled to **the United States and various European countries, especially West Germany**. Today the movement claims it has a presence in **more than 80 countries around the globe**.<sup>5</sup>

22. In Germany the movement first took root in local Muslim communities and then spread to university campuses and among leftists members of the opposition. **In the following decades it gradually established itself in other European countries and spread radical Islam to the West and became, in effect, the representative of the Muslim immigrant communities**. It is noteworthy that the various organizations, networks and activists in Europe are generally careful to deny their affiliation to the movement, especially after the events of September 11, 2001.

23. With the financial support of the Gulf States (which continues to this day) **the Muslim Brotherhood extended the da'wah network in Europe and the United States** by establishing banks, mosques, research centers, Islam facilities, and social and educational institutions. They all disseminate the movement's radical political Islam to the local Muslim communities. **The most prominent centers in Europe with direct or indirect ties to the Muslim Brotherhood are in Britain, Germany (especially Munich<sup>6</sup>) and France**, and include the **German Islamic Society** (Islamische Gemeinschaft Deutschlands, IGD), the **British Union of Islamic Organizations** and the **Muslim Association of Britain (MAB)**.

24. **The Muslim Brotherhood seeks to turn Islam into the**



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dominant force on the Continent within Europe's multicultural society, as part of the overall vision of the Islamic world conquest. In the past, Yousef al-Qardawi, a senior Sunni Muslim authority affiliated with the Muslim Brotherhood, reiterated his faith that Islam would eventually take over Europe although, he said, but **not by war**.<sup>7</sup> He said, "This means that Islam will return to Europe as a conqueror and victor, after having been expelled from it twice," qualifying his statement by saying, **"I maintain that the conquest this time will not be by the sword but by preaching and ideology."**<sup>8</sup>

25. The same theme appeared in Risalat al-Ikhwan, the Muslim Brotherhood organ printed in Britain, whose front cover showed a map of the world with a quotation from movement founder Hassan al-Banna underneath reading **"Our mission is to rule the world,"** but later, apparently as of 2003, the words "is to rule the world" were removed, in our assessment, because the Muslim Brotherhood was afraid of possible legal issues after September 11, 2001.

### The Position of Muslim Brotherhood in Europe on Terrorism

26. **The Muslim Brotherhood opposes Al-Qaeda's ideology and its activists do not directly involve themselves in terrorist attacks against Western countries or Israel. The movement also opposes radical Shi'ite Islam as spread by Iran.** Therefore, generally speaking, the European countries do not regard the Muslim Brotherhood as a security risk and thus allow them to operate within the Muslim communities. Their position is completely different for networks belonging to Al-Qaeda and the global jihad, which are targeted by the security services of various Western countries.

27. However, **the movement disseminates toxic propaganda against the West and its values, helping to segregate the Muslim population from local society.** The constant preaching makes it hard for the various Muslim communities to mingle with the indigenous societies in the countries in which they live and to internalize and West's liberal, democratic values. Moreover, **young people throughout Europe who have been exposed to the movement's radical**

**Islamic ideology form a potential reservoir from which global jihad networks can recruit operatives (jihadization).** Thus, in recent years there has been a rise in the number of terrorists with Western citizenship who at some point in their lives were educated in institutions affiliated with the Muslim Brotherhood's *da'wah* or who underwent radical Islamization through the Internet, **until they eventually abandoned the basic ideology of the Muslim Brotherhood and turned to the way of the global jihad.**

The Position of Muslim Brotherhood in Europe on Israel

28. **The Muslim Brotherhood in Europe (as well as in the Arab countries) is fundamentally hostile to Israel,** rejects its right to exist, supports Hamas, denies the legitimacy of the Palestinian Authority, rejects the peace process and Israeli-Palestinian negotiations and rejects any and all signs of normalization between Israel and the Arab states (especially Egypt and Jordan). The branches of the Muslim Brotherhood in Europe adapt the movement's fundamental ideology, according to which Palestine [including the State of Israel] is land belonging to the Muslim endowment (*waqf*) and an Islamic Palestinian state has to be built on it, to which the refugees who left in 1948 will return within the framework of the so-called "right of return."

29. **The Muslim Brotherhood in Europe plays a key role in the campaign being waged to delegitimize Israel and seeks to spread its basic positions to the European public, sometimes in a softened form by using catchwords familiar and acceptable to Western ears. It participates in anti-Israeli and pro-Hamas propaganda projects (such as flotillas and convoys to the Gaza Strip), is involved in anti-Israeli propaganda activities in various countries and participates in the BDS campaign to boycott Israel, its products, its culture and its leaders.** In addition, it plays an important role in **collecting money for Hamas** through its participation in the Union of Good, a network of funds and foundations around the world headed by Sheikh Yousef al-Qardawi.





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30. The Muslim Brotherhood conducts its anti-Israeli activities in collaboration with extreme leftist networks and activists hostile to Israel (called by the media the "red-green alliance"), and with human rights and social organizations. At the same time, activists belonging to Islamic networks in Europe affiliated with the Muslim Brotherhood maintain ongoing relations with other branches and with the movement's leaders in the Middle East, especially Yousef al-Qardawi, who lives in Qatar, and the Muslim Brotherhood leadership in Egypt.

### The Structure of This Study

31. The study includes the following sections:

- 1) **Overview**
- 2) **The Muslim Brotherhood in the Arab countries**

1. Egypt
2. Syria
3. Jordan
4. Algeria
5. Sudan
6. Saudi Arabia
7. The United Arab Emirates
8. Lebanon
9. Morocco
10. Tunisia

### 3) **The Muslim Brotherhood in Europe**

1. Establishing the Muslim Brotherhood
2. The Muslim Brotherhood's umbrella networks
3. Muslim Brotherhood activity in Turkey
4. Britain as a center for Muslim Brotherhood activity
5. London as the Muslim Brotherhood's media center

<sup>1</sup> Supplement and update for the June 19, 2011 ITIC study of the Muslim Brotherhood, "The Muslim Brotherhood is an Islamic mass movement whose worldview is based on the belief that "Islam is the solution" and on the stated aim of establishing a world order (a caliphate) based on Islamic religious law (Shariah) on the ruins of Western liberalism..." at [http://www.terrorism-info.org.il/malam\\_multimedia/English/eng\\_n/pdf/ipc\\_e174.pdf](http://www.terrorism-info.org.il/malam_multimedia/English/eng_n/pdf/ipc_e174.pdf).

<sup>2</sup> The full study in Hebrew can be found on our website and the English version is being translated and will shortly appear in English.

<sup>3</sup> For further information see the November 20, 2011 bulletin "A high-level delegation of Egypt's Muslim Brotherhood recently held a first-of-its-kind visit to the Gaza Strip, following up on meetings with top Hamas officials held in Cairo..." at [http://www.terrorism-info.org.il/malam\\_multimedia/English/eng\\_n/pdf/ipc\\_e242.pdf](http://www.terrorism-info.org.il/malam_multimedia/English/eng_n/pdf/ipc_e242.pdf).

<sup>4</sup> For further information see the December 11, 2011 bulletin "Hamas evacuates its Syrian external headquarters: overview and initial analysis" at [http://www.terrorism-info.org.il/malam\\_multimedia/English/eng\\_n/pdf/ipc\\_e249.pdf](http://www.terrorism-info.org.il/malam_multimedia/English/eng_n/pdf/ipc_e249.pdf).

<sup>5</sup> Udi Rosen, "Mapping the Organizational Sources of the Global Delegitimization Campaign against Israel in the UK," website of the Jerusalem Center for Public Affairs, 2010, page 12.

<sup>6</sup> For a long time the center the Muslim Brotherhood's activities was in Munich.

<sup>7</sup> Udi Rosen, "Mapping the Organizational Sources."

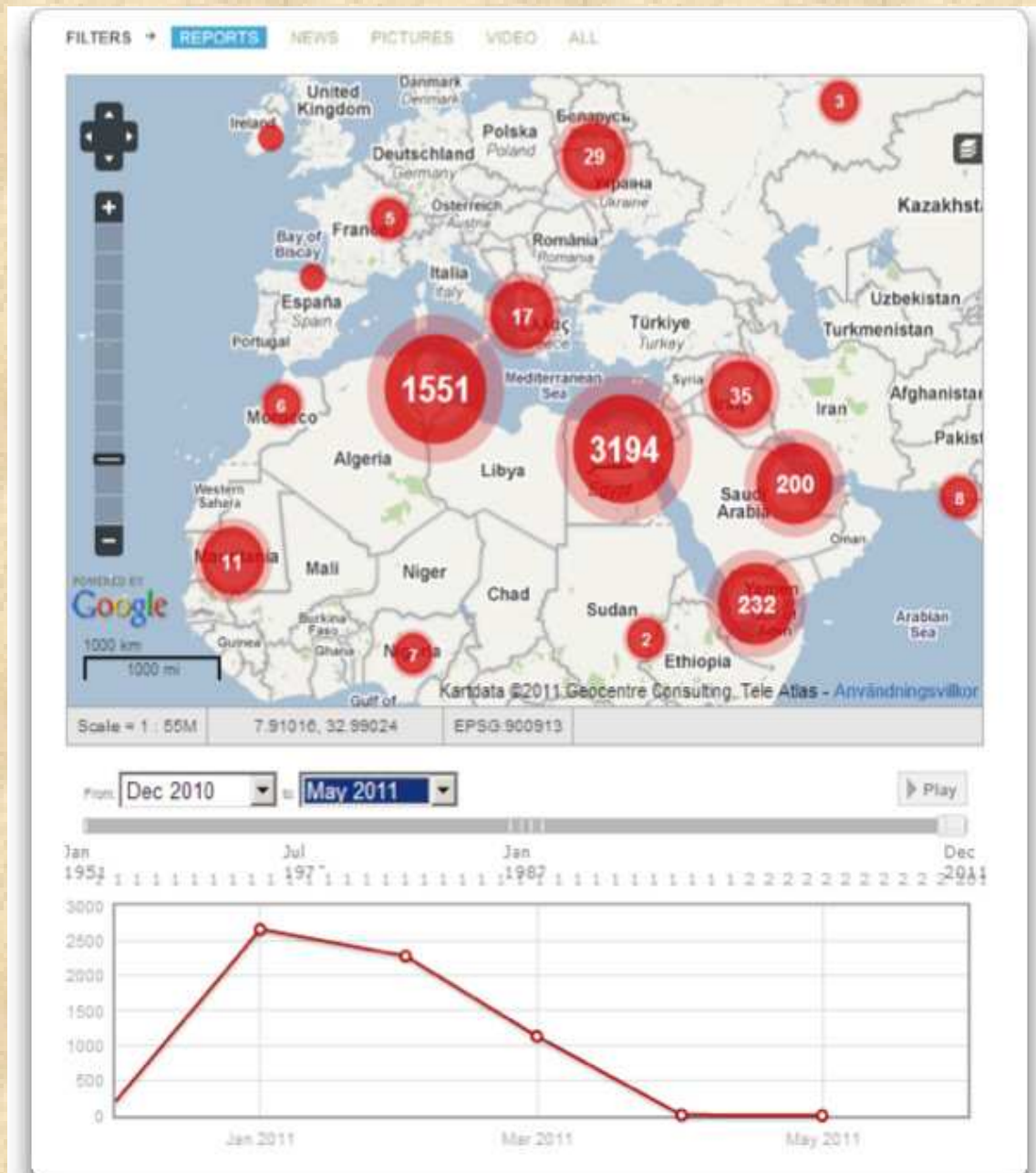
<sup>8</sup> MEMRI, December 6, 2002, Special Dispatch 447, <http://www.memri.org/report/en/0/0/0/0/0/774.htm>.

## Detecting Emergent Conflicts through Web Mining and Visualization

Source: <http://www.analysisintelligence.com/2011/09/>

Ushahidi is an interesting open source platform for information collection and interactive mapping. In a one day project with the Swedish Defence Research Agency, we connected the Recorded Future system with Ushahidi via our API.





Our focus was on showing protest events and other events indicating emerging conflicts. The project illustrates the simplicity with which structured information from Recorded Future can be visualized using freely available 3rd party tools.

**NOTE:** Download this impressive study from Newsletter's website – CBRNE-CT Papers' section

### Possible bomb threat reported at hospital

Source: <http://abclocal.go.com/wtvd/story?section=news/local&id=8483435>



Authorities at Seymour Johnson Air Force Base responded to a possible bomb threat at a Goldsboro Hospital Thursday morning. The 4th Civil Engineer Squadron Explosive



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Ordnance Disposal team and 4th Security Forces Squadron members were called in around 8:30 a.m. to help local authorities with a possible bomb threat at New Cherry Hospital. The hospital on W. Ash Street is currently under construction. Details about the threat have not been released at this time.

**Editor's Note: One more proof that hospitals ARE targets in the new era of terrorism. Keep this in mind and update your plans taking into account the new emerging threats as well. It might happen to us as well !**

### The future: Directed energy weapons (the hoverboard will come soon, honest)

Source: [http://www.defenceiq.com/defence-technology/articles/the-future-directed-energy-weapons-the-hoverboard/&mac=DFIQ\\_OI\\_Featured\\_2012&utm\\_source=defenceiq.com&utm\\_medium=email&utm\\_campaign=DefOptIn&utm\\_content=1/5/12](http://www.defenceiq.com/defence-technology/articles/the-future-directed-energy-weapons-the-hoverboard/&mac=DFIQ_OI_Featured_2012&utm_source=defenceiq.com&utm_medium=email&utm_campaign=DefOptIn&utm_content=1/5/12)

In November Rheinmetall shot down a low-altitude unmanned UAV with a 10kW laser, marking the first time the company had done so with its directed energy weapon integrated with a full air defence system.

At a live fire laser demo at the Group's Ochsenboden proving ground, international guests were able to view two laser weapon demonstrators in action, each featuring different



performance parameters. Both laser weapon demonstrators were deployed in different scenarios: as a means of

providing protection from asymmetric, terrorist-type threats; in a C-RAM context to counter the threat from incoming rockets, artillery and mortar rounds; and in an air defence scenario with an unmanned air vehicle serving as the target.

Piquing the curiosity of armoured vehicle integrators in particular, Rheinmetall also demonstrated the use of a 1-kW laser weapon that "proved highly effective in destroying IEDs as well as neutralizing unexploded ordnance from a safe distance."

The future is upon us it would appear. At the very least the tests mark another step towards the effective use of directed energy systems in military operations.

The idea of using lasers for military purposes has been around for a number of years now. In 2002 Newt Gingrich, former Speaker of the

U.S. House of Representatives, and current Republican Presidential candidate (although how long-lived this will be after limping to a fourth place finish in Iowa yesterday is unsure), advocated the use of directed energy weapons. "In the next five or eight years you have directed energy weapons and laser pulsing systems that could actually do that (successfully implement boost phase rocket launches to the East) from space," Gingrich told FRONTLINE at the time.

In 2004 Donald Rumsfeld commissioned the Airborne Laser (ABL) programme, which was a missile defence system designed to destroy tactical ballistic missiles while in boost phase. The project was eventually abandoned due to a cacophony of technical problems, investment issues and a changing threat landscape. The DoD may ultimately regret pulling the plug on the ABL project as science – and threats – advance.

Daniel Goure, Ph.D., wrote in the Lexington Institute's Early Warning Blog last month about his frustrations of the DoD's recent inability to convert scientific breakthrough into state-of-the-art military equipment. However, he balanced this with a clear indication that the findings drawn from the ABL programme, and the lessons learned from it, were valuable contributions to the U.S. military's knowledge base. It was, to some extent, investing in future capability, in an area of research that other hostile nations have little understanding.

"There will be directed energy weapons deployed in the future," Goure said. "The ABL program gave the Department of Defense



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potential long-term advantages in this area.”

The idea of using lasers and directed energy weapons is no longer science fiction. They may still be in the early stages of R&D, but electronic weapons are a viable alternative in the future.

Underlining the increased importance of electronic weapons over the next decade, in the classroom cadets are now being taught about how they work, and how to operate them.

“I'm really impressed with the actual technology coming out and excited to apply it in the Fleet -

especially the lasers, high frequency weapons and directed energy. It's absolutely amazing,” said Aaron Denson, USNA class of 2012 midshipman in an interview with Southern Maryland Online on a visit to the Naval Surface Warfare Center Dahlgren Division (NSWCDD). Timeframes are unclear – technically the phrase ‘it's not an exact science’ is hardly relevant here, but the sentiment fits. As for Rheinmetall, the company expects a high-energy laser weapon system with an output of 100 kW to be available within the next three to five years.

### First Shariah-Controlled Zone in Australia

Source:[http://www.radicalislam.org/videos/first-shariah-controlled-zone-australia?utm\\_source=MadMimi&utm\\_medium=email&utm\\_content=Jihad+on+Campus&utm\\_campaign=R1+Newsletter+58&utm\\_term=First+Shariah-Controlled++Zone+in+Australia](http://www.radicalislam.org/videos/first-shariah-controlled-zone-australia?utm_source=MadMimi&utm_medium=email&utm_content=Jihad+on+Campus&utm_campaign=R1+Newsletter+58&utm_term=First+Shariah-Controlled++Zone+in+Australia)



Notorious Australian Muslim cleric and convert to Islam, Ibrahim Siddiq-Conlon, has appeared on Australian television news announcing his plans to implement Shariah Law in a suburb of Sydney called Lakemba, which is home to Australia's largest Muslim community.

WATCH the [video](#)

**COMMENT 1 (Jan 5, 2012):** Australia is the second country following United Kingdom that the phenomenon of Shariah-controlled Zone is applied. It is unbelievable how these strong nations allow citizens and most probable non-citizens to establish a law-in-law system within their countries. What is next?

**COMMENT 2 (Jan 18, 2012):** Unfortunately, Athens was next! According to “Epikaira” journal attempts to enforce Shariah law have been recorded in certain areas of Athens such as Omonia Square, St Panteleimon, Kolonos and Kipseli driven by illegal Wahhabi immigrants infiltrated unofficial small mosques operating in the centre of Athens. In the mean time, Internet sources reveal that similar actions evolved in Germany, Austria, Malta, Spain and Ukraine.



## Muslim Persecution of Christians: December, 2011

By Raymond Ibrahim

Source: <http://www.meforum.org/3146/muslim-persecution-of-christians-december-2011>

The Nigerian church bombings, wherein the Islamic group Boko Haram killed over 40 people celebrating Christmas mass, is just the most obvious example of anti-Christian sentiment in December. Elsewhere around the Muslim world, Christmas time for Christians is a time of increased threats, harassment, and fear, which is not surprising, considering Muslim clerics maintain that "saying Merry Christmas is worse than fornication or killing someone." A few examples:

- **Egypt:** The Coptic Church is being threatened with a repeat of "Nag Hammadi," the area where drive-by Muslims shot to death six Christians as they exited church after celebrating Christmas mass in 2010. Due to fears of a repeat, the diocese has "cancel[ed] all festivities for New Year's Eve and Christmas Eve."
- **Indonesia:** In a "brutal act" that has "strongly affected the Catholic community," days before Christmas, "vandals decapitated the statue of the Virgin Mary in a small grotto ... a cross was stolen and the aspersion was badly damaged."
- **Iran:** There were reports of a sharp increase of activities against Christians prior to Christmas by the State Security centers of the Islamic Republic. Local churches were "ordered to cancel Christmas and New Year's celebrations as a show of their compliance and support" for "the two month-long mourning activities of the Shia' Moslems."
- **Malaysia:** Parish priests and church youth leaders had to get "caroling" permits—requiring them to submit their full names and identity card numbers at police

stations—simply to "visit their fellow church members and belt out 'Joy to the World,' [or] 'Silent Night, Holy Night.'"

- **Pakistan:** "Intelligence reports warned of threats of terrorist attacks on Christmas Eve and Christmas Day," adding that most church security is "inadequate." Christians also lamented that "extreme power outages have become routine during Christmas and Easter seasons."

Meanwhile, if Christians under Islam are forced to live like dhimmis—non-Muslims under Muslim authority, treated as second-class citizens—in the West, voluntarily playing the dhimmi to appease Muslims during Christmas time is commonplace: the University of London held Christmas service featuring readings from the Quran (which condemns the incarnation, that is, Christmas); and "a posh Montreal suburb has decided to remove a nativity scene and menorah from town hall rather than acquiesce to demands from a Muslim group to erect Islamic religious symbols."

Categorized by theme, the rest of December's batch of Muslim persecution of Christians around the world includes (but is not limited to) the following accounts, listed according to theme and in country alphabetical order, not necessarily severity.

### CHURCH ATTACKS

**Ethiopia:** A [video](#) of some 500 Muslims burning down a church on November 29 while crying "Allahu Akbar!" appeared. The pretext for burning this church was that it had no "permit"—even though it was built on land owned by Christians for 60 years.

**Indonesia:** An "Islamic extremist" group is pushing hard to have five churches demolished, again, to claims that the churches have no permit. The congregation of another "embattled church" that Muslims are trying to shut down "was



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forced to move its Christmas prayers to a member's house after Islamic groups assembled at the disputed site making threats.

**Iran:** While celebrating Christmas, a church was raided by State Security. All those present, including Sunday school children, were arrested and interrogated. Hundreds of Christian books were seized. The detained Christians suffered "considerable verbal abuses"; the whereabouts of others arrested, including the reverend and his wife, remain unknown. "Raids and detentions during the Christmas season are not uncommon in Iran, a Shi'a-majority country that is seen as one of the worst persecutors of religious minorities."

**Nigeria:** Weeks before the Christmas Day church bombings, another jihadi attack, enabled by "local Muslims," left five churches destroyed and several Christians killed: "The Muslims in this town were going round town pointing out church buildings and shops owned by Christians to members of Boko Haram, and they in turn bombed these churches and shops."

**Turkey:** A large-scale al-Qaeda plot to bomb "all the churches in Ankara," was exposed. An official indictment against al-Qaeda members earlier arrested revealed the homegrown terrorist cell's plans to attack Ankara's churches and their Christian clergy.

### APOSTASY, BLASPHEMY, and PROSELYTISM

**Algeria:** In May, a Muslim convert to Christianity was sentenced to a five-year prison term on charges of "insulting Muhammad, the prophet of Islam, and with 'proselytism' for giving a Muslim a CD about Christianity." Now the judge has decided "to indefinitely postpone" the man's appeal, thus "show[ing how] the judicial system keeps Christians in limbo without officially punishing or acquitting them."

**Kashmir:** The top Islamic clergyman launched a website against apostasy and the conversion of Muslims to Christianity. The website works to "check the conversion of young [Muslim] boys and girls [to Christianity]"; its "fundamental goal" is to "thwart catastrophic [Christian] missionary activities."

**Iran:** Pastor Yousef Nadarkhani, who caught the attention of the world after being imprisoned and awaiting execution for leaving Islam, may have to wait another year for a ruling on whether the sentence will be upheld, as authorities continue to delay, in the hopes

that the world will forget. Meanwhile, authorities continue "to pressure Nadarkhani to recant his faith," giving him and ordering him to read "Islamic literature aimed at discrediting the Bible. The court reportedly has been told to use whatever means necessary to compel Nadarkhani to recant his faith." Another convert to Christianity recently told of his experiences: "When my family and friends learned of my decision, they didn't accept it and rejected me as a result. They made me leave our family home. In addition, my friends treated me like my family had and began calling me an apostate and an infidel. In Iran, anyone who converts to Christianity faces various problems. In spite of the love I had for my family, I had to leave my home. Everyone rejected me."

**Malaysia:** Lamenting that "It could be hundreds, maybe even thousands" of Muslims converting to Christianity, a former state-commissioner has been "collecting data" to "persuade" the apostates to return to Islam: "We are helping them, hoping they will come back to Islam." Likewise, the Sultan of Selangor, a Malaysian state, has ordered top-level Islamic organizations to take strategic steps against proselytism, "so that Muslims who have began distancing themselves from Islam will return to the fold and repent."

**Pakistan:** After a Muslim family discovered their son had converted to Christianity, not only did "his father put up a notice in local newspapers disowning him," but his family "file[d] a police complaint against him because—as a *murtad* or apostate deserving death—he was said to have committed "blasphemy." Likewise, after a rent-related quarrel, a Muslim landlord accused his Christian tenant of desecrating the Quran, which led to crowds of Muslims surrounding the Christian's house, making threats and hurling anti-Christian slogans; "Muslim leaders made announcements from several mosques calling for severe punishment." He was arrested and charged under Pakistan's "blasphemy" laws, which make willful desecration of the Quran punishable with life imprisonment.

### VIOLENCE and KILLINGS

**Kashmir:** Christians imprisoned under "blasphemy" charges continue to be tortured. One was "seriously injured in a knife attack and was believed to be in a Lahore hospital on Christmas Day."



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**Kenya:** Seven Muslims of Somali descent beat a young Somali Christian unconscious, seriously injuring his eye, less than six weeks after a similar attack on his older brother, saying "we did not succeed in killing your brother, but today we are going to kill you." His family was presumably Muslim when he was born, so the gang beat him as an "apostate" even though he was raised as a Christian.

**Iraq:** A rash of attacks on Christians erupted following a Friday mosque sermon, and included Muslim "mobs burning and wrecking [Christian] businesses. Later, Muslim gunmen shot and killed a Christian couple as they were walking towards their car; their two children were hurt but are still alive. New information has been received "on a plot against the Christian minority in Mosul during the upcoming Christmas and New Year holidays."

**Pakistan:** A Muslim man murdered a Christian girl during an attempted rape: he had "grabbed the girl and, under the threat of a gun, tried to drag her away. The young Christian woman resisted, trying to escape the clutches of her attacker, when the man opened fire and killed her instantly, and later tried to conceal the corpse." Though the man is described as a "young drifter and drug addict," the ongoing sexual abuse of Christian women by Muslim men exposes how Christians are seen as second-class, to be abused with impunity.

**Philippines:** A 71-year old pastor was shot dead by two unidentified gunmen on board a motorcycle. "The [Mindanao] province is known for Christian pastors becoming victims of persecution. Just earlier this year, a lady pastor of a local Pentecostal church was hacked to death by suspected Moslem rebels in front of her daughter."

**Syria:** "Around 50 Christians have been killed in the anti-government unrest in Homs, Syria, by both rebels and government forces, while many more are struggling to feed their families as the violence brings normal life in the city to a halt.... In one tragic incident, a young Christian boy was killed by the rebels, who filmed the murder and then claimed that government forces had committed the act. Another Christian was seized by the rebels, taken to a house and asked, 'How do you want to die?' The man completely broke down and was released but has been left in severe psychological distress."

**Uganda:** Muslims threw acid on a church leader on Christmas Eve shortly after a revival

at his church, leaving him with severe burns that have blinded one eye and threaten sight in the other. The pastor "was on his way back to the site for a party with the entire congregation and hundreds of new converts to Christianity when a man who claimed to be a Christian approached him. 'I heard him say in a loud voice, *Pastor, pastor*, and as I made a turn and looked at him, he poured the liquid onto my face as others poured more liquid on my back and then fled away shouting, '*Allahu Akbar*.'"

### DHIMMITUDE

#### [General Abuse, Debasing, and Suppression of non-Muslim "Second-Class Citizens"]

**Egypt:** Accusations that a 17-year-old Christian student posted a drawing of Islam's prophet on Facebook triggered Muslim violence and havoc for two days (the student insists his friends posted the picture on his Facebook page). At least three Christian homes including the youth's were burned to cries of "Allahu Akbar" and he was severely beat by Muslim classmates prior to being taken away by police. Demands that Christians pay *jizya*—tribute collected from non-Muslim infidels—are increasing. Also, Rif'at al-Said, head of Egypt's Al Tagammu Party, proclaimed that Christians are right to be scared, some are packing and leaving, and that the "history of Egypt includes religious riots and oppression, and subsequent Christian emigration."

**Iraq:** A Christian man was kidnapped and held for three days, during which his captors demanded a \$500,000 ransom. He "was blindfolded and tied down during his ordeal" until "rescued by a SWAT team ... to the great relief of his 21-year-old wife Amal and the local Christian community."

**Malaysia:** An evangelical Christian leader may face charges of sedition following a statement he made concerning Article 153 of Malaysia's Constitution, which he likened to "bullying" for only protecting the rights of Muslims.

**Philippines:** In Mindanao, where Muslims make 1/3 of the population, a 20-year-old Christian preschool learning center is being threatened with closure, under technicalities. Mindanao "has the highest incidence of persecuted Christians doing missionary work in the Philippines and it was also in this region where a suspected man lobbed a bomb grenade at visiting Christian



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missionaries ... priests and missionaries have also been kidnapped."

**Saudi Arabia:** Dozens of Ethiopian Christians were arrested for holding a prayer meeting, though under charges of "mixing with the opposite sex": "the Saudi officials are accusing the Christians of committing the crime of mixing of sexes because if they charge them with meeting for practicing Christianity, they will come under pressure from the international human rights organizations as well as Western countries."

### About this Series

Because the persecution of Christians in the Islamic world is on its way to reaching epidemic proportions, "Muslim Persecution of Christians" was developed to collate some—by no means all—of the instances of Muslim persecution of Christians that surface each month. It serves two purposes:

1. Intrinsically, to document that which the mainstream media does not: the habitual, if not chronic, Muslim persecution of Christians.
2. Instrumentally, to show that such persecution is not "random," but systematic and interrelated—that it is rooted in a worldview inspired by Sharia.

Accordingly, whatever the anecdote of persecution, it typically fits under a specific theme, including hatred for churches and other Christian symbols; sexual abuse of Christian women; forced conversions to Islam; apostasy and blasphemy laws; theft and plunder in lieu of jizya (tribute); overall expectations for Christians to behave like cowed "dhimmis" (second-class citizens); and simple violence and murder. Oftentimes it is a combination thereof.

Because these accounts of persecution span different ethnicities, languages, and locales—from Morocco in the west, to India in the east, and throughout the West wherever there are



Muslims—it should be clear that one thing alone binds them: Islam—whether the strict application of Islamic Sharia law, or the supremacist culture born of it.

*Raymond Ibrahim is a Shillman Fellow at the David Horowitz Freedom Center and an Associate Fellow at the Middle East Forum.*

### Study indicates more Britons are converting to Islam: report

Source: <http://english.alarabiya.net/articles/2012/01/05/186544.html>

A new study found that the number of Britons converting to Islam is growing, a London-based newspaper reported on Tuesday.

The Independent newspaper said that the estimated number of British converts has always been difficult to count because "census data does not differentiate between a religious person that has adopted a new faith or was born into it."

According to a new study by the inter-faith think tank Faith Matters, the real figure could be as high as 100,000, with as many as 5,000 new conversions nationwide each year. Previous estimates have placed the number of Muslim converts in the UK at between 14,000 and 25,000.

The study used data from the Scottish 2001 census, the only survey to ask respondents what their religion was at birth as well as at the time of the survey; researchers broke down what proportion of Muslim converts there were by ethnicity and then extrapolated the figures for Britain as a whole, the newspaper said. In all they estimated that there were 60,699 converts living in Britain in 2001.

The researchers polled mosques in London to try to calculate how many conversions take place a year. The results gave a figure of 1,400 conversions in the capital in the past 12 months, which, when extrapolated nationwide, would mean approximately 5,200 people converting to Islam every year.





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Yousef Islam, a former rock star who was known as Cat Stevens, is one of the most famed British personalities that converted to the religion of Islam. (File Photo)

Meanwhile, the figures are comparable with studies in Germany and France, which found that there were around 4,000 conversions a year in each country.

“This report is the best intellectual ‘guestimate’ using census numbers, local authority data and polling from mosques,” Fiyaz Mughal, director of Faith Matters, told the newspaper.

“Either way, few people doubt that the number adopting Islam in the UK has risen dramatically in the past 10 years.”

Asked why people were converting in such large numbers, he replied: “I think there is definitely a relationship between conversions being on the increase and the prominence of Islam in the public domain. People are interested in finding out what Islam is all about, and when they do that they go in different directions. Most shrug their shoulders and return to their lives, but some will inevitably end up liking what they discover and will convert.”

## Hezbollah Presence in the United States is No Surprise

By Sylvia Longmire

Source: <http://www.hstoday.us/single-article/hezbollah-presence-in-the-united-states-is-no-surprise/2e1af4c017be5f75d5a5da67329b6b91.html>

One of the biggest concerns for officials involved in border security is the potential for members of terrorist groups to sneak into the United States from Mexico. Elected officials and counterterrorism authorities believe that members of Hezbollah have entered our country this way, and have used this possible security risk as a basis for initiating stronger border security measures. Such statements tend to make headlines, and those headlines tend to shock Americans into thinking the next 9/11 will come from Mexico.

The real response to such statements reasonably could be, “so what?”

What many people don't know is that thousands of people associated with Hezbollah have been quietly making a living in various parts of the United States for a long time, and sending money back to the Middle East to help fund terrorist activities there. The real kicker is that we're helping them, and have been for quite a while.

In 2006, Rep. Edward Royce testified before Congress that the FBI had over 200 active cases in 2005 against people in the United States suspected of being associated with Hezbollah.

“The vast majority of this activity has been linked to fundraising, specifically to attempts to use Visa cards and MasterCard for fraudulent

funds to support Hezbollah along with other criminal fundraising activities,” Royce said.

And they're raising that money by selling fake purses, cigarettes and other name-brand goods to Americans.

The first World Trade Center bombing in 1993 reportedly was financed by the sale of counterfeit textiles from a store on Broadway in New York City. Three years later, a confiscation of 100,000 counterfeit Nike brand t-shirts intended for sale at the 1996 Atlanta Olympic Games uncovered a multi-million dollar fundraising operation conducted by followers of Sheik Omar Abdel Rahman – a blind cleric later convicted of plotting to bomb New York City landmarks.

Raids on counterfeiting operations in California have led to the discovery of Hezbollah flags, photos and other memorabilia. In one case, a female cigarette counterfeiter was arrested at the Los Angeles airport on her way to Lebanon with \$230,000 in cash strapped to her body. While the woman claimed to be traveling for vacation, it was presumed that the funds were being transported to Hezbollah.

In February 2008, police conducted raids against 32 stores in New York City's Chinatown that retailed knock-offs of high-end brand products. The total street value of the goods was in excess of \$1 million. The next month, a raid made on the home of Rakesh and Poonam Kumar in Suffolk County, New



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York yielded a seizure of \$2 million worth of products that also replicated the designs of several high-end brands.

But that was pocket change compared to a sting that was made in April 2008 in a Queens, New York warehouse. In this raid – the largest in New York history – police confiscated 75,000 pairs of fake Nike sneakers, 75,000 knock-off handbags and 5,000 pieces of fake name brand clothing. The street value of these products was estimated at \$4.5 million. New York authorities strongly believed the proceeds from the sale of these goods were headed to Middle Eastern terrorist organizations.

Obviously, the presence of so many people in the United States actively raising money for terrorist organizations is a frightening thought. It also tends to stun people when they're told that members of Hezbollah are crawling all over the country and have been for a long time. The most recent example of such activity took place in mid-December 2011 when the Drug Enforcement Administration (DEA) raided an Oklahoma car dealership that the government suspects may be one of dozens of similar businesses in the US involved in funding Hezbollah. DEA Agent Derek Maltz told ABC's KTUL-TV that "the used cars being purchased in the United States are being shipped into West Africa. They are making 15, 20, 25 percent profit, and the proceeds are all being sent back into Lebanon, with Hezbollah benefitting."

There are several things though that need to be understood about the Hezbollah presence in the US and the fact that members continue to arrive in order to reduce panic and over-reaction. First, there's no information to suggest that members of Hezbollah living in the United States are currently planning to blow up anything. In fact, it goes against their best interests to do so. Both the United States and

Latin America are huge cash cows for the organization and they're working hard to elude the FBI so they can continue to make huge sums of money.

Similar to acts of violence on US soil by Mexican transnational criminal organizations (TCOs), any violent acts by Hezbollah would bring the full weight of US law enforcement and, possibly, the military, down on their rackets, drastically reducing the illicit revenue they're able to generate in America.

Hezbollah has also been raising money from similar criminal enterprises for decades in the tri-border region where Brazil, Paraguay and Argentina intersect, as well as in free trade zone areas throughout South America.

Hezbollah was responsible for the two largest terrorist attacks ever conducted in Latin America, one in 1992 and the other in 1994. Both targeted Jewish targets in Buenos Aires. It's assumed the group still has the capability to conduct such attacks again. But in a post-9/11 environment, the motivation to conduct such attacks would have to be very strong to sacrifice the millions of dollars that Hezbollah is raking in by its under-the-radar counterfeit businesses.

Should we be concerned that members of Hezbollah have entered the United States via our southwest border, and likely will continue to do so? Yes. But alarm over reports that members of this terrorist group are entering the country from across the Southwest border should be tempered by the knowledge that Hezbollah associates are likely coming here to raise more money, not kill Americans. If they want to accomplish that in the future, they don't need to bring in new people through Mexico; they already have plenty of associates' in-country to do that, and that should be the focus of law enforcement when dealing with any potential internal Hezbollah threat.

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**Hezbollah Doesn't Need Iran's Money When They Have US Funds****By Kerry Patton**Source: <http://www.hstoday.us/blogs/guest-commentaries/blog/hezbollah-doesnt-need-irans-money-when-they-have-us-funds/9e6a858763c3285bb61ba6beb6f70bcd.html>

On December 13, the *New York Times* revealed everything US politicians needed to know about Hezbollah. And that is they operate throughout South and Central America alongside numerous narco-terrorists like Colombia's FARC and Mexico's Los Zetas. The Party of God makes a lucrative amount of drug money that gets pushed into the Middle East where it funds their reign of terror. Hezbollah uses numerous banking firms to launder their money, and a not insignificant percentage of it is generated in the United States.

What wasn't revealed in the *New York Times* article though is a very unique and alarming point that very few accept, and that is Hezbollah is no longer just one terrorist organization working alone. As a result of the assassination of Lebanon's Prime Minister in 2005, Hezbollah, Amal, the Syrian Social Nationalist Party (SSNP) and a handful of other terrorist groups aligned to join forces. This is known as the March 8 alliance, and it puts the Al Qaeda network to shame.

Few know anything about Amal or SSNP. For those who remember the 1983 Marine Corp bombing incident, it was an Amal militia outfit that was responsible and that later became known as Hezbollah. For those with little background on SSNP, it arguably is one of the world's premier assassination terror organization.

Rarely do these organizations ever work independently anymore. In fact, intelligence demonstrates that even a Sunni terror network known as Al Qaeda operates frequently with several Shiite terror groups such as Hezbollah. Don't believe me? Go back and read the 9/11 Commission report.

Today, Islamic terror groups like these are aligned with Latin American terrorists. Colombia's FARC, along with the Mexican-based Los Zetas Cartel, have aligned to create a global network that intermixes faith; proving that religion has nothing to do with today's global war on terrorism - for now.

If you've ever wondered why Mohmar Qaddafi used FARC mercenaries during the Libyan revolution, look no more - the reason is found

in the alliance between Latin American and Middle Eastern terrorist organizations.

The US Department of Treasury's Financial Crimes Enforcement Network (FinCEN) has done an exceptional job investigating Hezbollah money laundering schemes within the United States. On December 15, the US Attorney for the Southern District of New York released an alarming report demonstrating that more than \$300 million in wired funds coming into the United States from Hezbollah. Fear not that Hezbollah operates inside Latin America; fear that they operate inside the United States. And here Hezbollah has made a lucrative amount of money from its varied illicit criminal enterprises like cigarette smuggling. A smuggler can make about \$2 million from a single truckload of cigarettes. And these types of Hezbollah operations have been known since early 2004 when criminal cases unfolded in virtually every state on the eastern corridor from Maine to Florida.

But the terrorist group's operations do not solely involve financing. Going back and understanding their alliances, it is easy to see that Hezbollah promotes terrorist activities even inside the United States. In 1988, a team of SSNP operatives intended to cause havoc inside the US, but were intercepted in Vermont. Al Qaeda's 9/11 attack was assisted by Hezbollah operatives. And most recently, Hezbollah supported the foiled assassination attempt against Saudi Arabia's Ambassador to the United States.

Meanwhile, although America is one of the leading diamond purchasers in the world and tighter control over the world's diamond industry has evolved, Hezbollah nevertheless operates alongside African nation-states along with clientele aligned with the world's leading diamond distributor.

Iran has supported Hezbollah since its inception with millions of dollars annually. But it's beginning to appear that Hezbollah may no longer need Iran. The terrorist group has demonstrated that it has sophisticated international financial fundraising capabilities.



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America loves “sex, drugs and rock and roll” as much as we love our drugs, diamonds and cigarettes. And Hezbollah has their fingers in all three of these financially lucrative industries ... and is using their avowed enemy, the United States, to financially benefit from them. On our own soil.

We now that Hezbollah uses these three avenues of commerce to fund itself. How many more business will we find Hezbollah involved

in? It's anyone's guess. But what we do know is that Hezbollah is exceptional in what they do, and have proven that, with or without a nation-state supporter like Iran, it will remain as the world's most capable terrorist organization.

Not only do they finance their terror initiatives with global support; today, they conduct terrorist attacks anywhere, anytime - outside and inside the US.

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### STRATFOR: Annual Forecast 2012

January 11, 2012

Source: <http://www.stratfor.com/forecast/annual-forecast-2012>

There are periods when the international system undergoes radical shifts in a short time. The last such period was 1989-1991. During that time, the Soviet empire collapsed. The Japanese economic miracle ended. The Maastricht Treaty creating contemporary Europe was signed. Tiananmen Square defined China as a market economy dominated by an unchallenged Communist Party, and so on. Fundamental components of the international system shifted radically, changing the rules for the next 20 years.

We are in a similar cycle, one that began in 2008 and is still playing out. In this period, the European Union has stopped functioning as it did five years ago and has yet to see its new form defined. China has moved into a difficult social and economic phase, with the global recession severely affecting its export-oriented economy and its products increasingly uncompetitive due to inflation. The U.S. withdrawal from Iraq has created opportunities for an Iranian assertion of power that could change the balance of power in the region. The simultaneous shifts in Europe, China and the Middle East open the door to a new international framework replacing the one created in 1989-1991.

Our forecast for 2012 is framed by the idea that we are in the midst of what we might call a generational shift in the way the world works. The processes are still under way, and we will

therefore have to consider the future of Europe, China and the Middle East in some detail before drawing a conclusion. The 2012 forecast is unique in that it is not a forecast for one year in a succession of years, all basically



framed by the same realities. Rather, it is a year in which the individual forecasts point to a new generational reality and a redefinition of how the world works.

2012 may not be the conclusion of this transformative process. Neither was 1991 the conclusion. However, just as 1991 was the year in which it became clear that the old world of the Cold War no longer functioned, 2012 is the year in which it will become clear that the Post-Cold War world has come to an end, being replaced by changed players and changed dynamics.



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### Europe

The European Union and eurozone will survive 2012, and Europe's financial crisis will stabilize, at least temporarily. However, Stratfor expects Europe to continue its long, painful slide into deepening recession. We expect accelerating capital flight out of peripheral European countries as investors in Europe and farther afield lose confidence in the European system. We expect financial support measures to be withdrawn on occasion to maintain pressure on governments to implement austerity, which will lead to financial scares and extreme volatility. However, the driving force behind developments in Europe in 2012 will be political, not economic. Germany, seeing an opportunity in the ongoing financial crisis, is using its superior financial and economic position to attempt to alter the eurozone's structure to its advantage. The core of this "reform" effort is to hardwire tight financial controls into as many European states as possible, both in a new intergovernmental treaty and in each state's national constitution. Normally, we would predict failure for such an effort: Sacrificing budgetary authority to an outside power would be the most dramatic sacrifice of state sovereignty yet in the European experiment -- a sacrifice that most European governments would strongly resist. However, the Germans have six key advantages in 2012.

First, there are very few scheduled electoral contests, so the general populace of most European states will not be consulted on the exercise. Of the eurozone states, only France, Slovakia and Slovenia face scheduled national elections. Out of these three, France is by far the most critical: The Franco-German partnership is the core of the European system, and any serious breach between the two would herald the end of the European Union. If Germany is to compromise on its efforts for anyone, it will be for France, and if France needs another country in order to secure its own position in Europe, it needs Germany. Consequently, the two have chosen to collaborate rather than compete thus far, and we expect their partnership to survive the year. Luckily for the German effort, French elections will be at the very beginning of the ratification process, so any possible modifications to the German plan will come early.

Second, Germany only needs the approval of the 17 eurozone states -- rather than the 27

members of the full European Union -- to forward its plan with credibility. That the United Kingdom has already opted out is inconvenient for those seeking a pan-European process, but it does not derail the German effort.

Third, the process of approving a treaty such as this will take significant time, and some aspects of the reform process can be pushed back. European leaders are expected to sign the new treaty in March, and the rest of the year and some of 2013 will be used to seek ratification by individual countries. Amending national constitutions to satisfy Germany will be the bitterest part of the process, but much of that can be put off until 2013, and judgment by European institutions over how the revision process was handled comes still later. Such delays allow political leaders the option of pushing back the most politically risky portions of the process for months or years.

Fourth, the Germans are willing to apply significant pressure. Nearly all EU states count Germany as the largest destination for their exports, and such exports are critical for local employment. In 2011, Germany used its superior economic and financial position as leverage to help ease the elected leaderships of Greece and Italy out of office, replacing them with unelected former EU bureaucrats who are now working to implement aspects of the German program. Similar pressures could be brought to bear against additional states in 2012.

Those most likely to clash with Germany are Ireland, Finland, the Netherlands and Spain. Ireland wants the terms of its bailout program to be softened and is threatening a national referendum that could derail the ratification process. Finland's laws require parliamentary approval by a two-thirds majority for some aspects of ratification. The normally pro-European government of the Netherlands is a weak coalition that can only rule with the support of other parties, one of which is strongly euroskeptic. Spain must attempt the most painful austerity efforts of any non-bailout state if the reform process is to have credibility -- and it must do so amid record-high unemployment and a shrinking economy. Also, if Greece decides to hold new elections in 2012, European stakeholders will attempt to ensure that the new government in Athens does not end its collaboration with the European Central Bank (ECB),



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European Commission and International Monetary Fund. None of these issues will force an automatic confrontation, but all will have to be managed to ensure successful ratification, and the Germans have demonstrated that they have many tools with which to compel other governments.

Fifth, the Europeans are scared, which makes them willing to do things they would not normally do -- such as implementing austerity and ratifying treaties they dislike. Agreeing to sacrifice sovereignty in principle to maintain the European economic system in practice will seem a reasonable trade. The real political crisis will not come until the sacrifice of sovereignty moves from the realm of theory to application, but that will not occur in 2012. In many ways, the political pliability of European governments now is all about staving off unbearable economic catastrophe for another day.

The economic deferment of that pain is the sixth German advantage. Here, the primary player is the ECB. The financial crisis has two aspects: Over-indebted European governments are lurching toward defaults that would collapse the European system, and European banks (the largest purchasers of European government debt) are broadly insolvent -- their collapse would similarly break apart the European system. In December, the ECB indicated that it was willing to put up 20 billion euros (\$28 billion) a week for sovereign bond purchases on secondary markets to support struggling eurozone governments, while extending low-interest, long-term liquidity loans to European banks in unlimited volumes. The bond program is large enough to potentially purchase three-fourths of all expected eurozone government debt issuances for 2012, while the first day of the loan program extended 490 billion euros in fresh credit to ailing banks.

Together these two measures make a eurozone financial meltdown highly unlikely in 2012, but they will greatly degrade European competitiveness and efficiency. That will be a problem for another time, though. For now, ECB actions are buying economic and political breathing room: economic in that austerity efforts can be somewhat softer than they would otherwise need to be, and political in that there is a feeling that Germany is willing to compromise somewhat on the issues of budgetary discipline today in order to achieve

its broader goals of budgetary control tomorrow. Therefore, while the financial support is not exactly buying good will from other European states, it is certainly buying time.

As the ratification process proceeds, European hostility toward Germany and Brussels will increase. Internationally, the key theme will be states attempting to protect themselves from what they see as a growing -- and unwelcome -- German intrusion into their internal affairs. At the national level, deepening austerity will generate anger toward governments. The relative dearth of elections will deny that anger its normal release valve of centrist opposition parties, emboldening nationalist and extremist movements and leading to social unrest.

Political and financial turbulence will persist within this framework as Germany negotiates the new treaty with other eurozone countries. Though the core of these negotiations is a highly contentious abdication of national fiscal sovereignty, Europe is highly likely to adopt the new treaty since a perceived failure would dramatically accelerate the collapse of EU political structures and implementation will not happen in 2012.

### Former Soviet Union Russia's Challenges

In 2012, the Kremlin will face numerous challenges: social unrest, restructuring Russia's political makeup (both inside and outside of the Kremlin) and major economic shifts due to the crisis in Europe. The social unrest seen at the end of 2011 will continue festering throughout the presidential elections in 2012. Kremlin chief Vladimir Putin will have to reshape the political landscape from one dominated by his party to one that accounts for the increasing support for the nationalists and a new class of young, liberal activists. Simultaneously, Putin will restructure his inner circle of Kremlin loyalists, who have allowed infighting to divert their attention from their roles in tackling Russia's social unrest and financial problems. None of this will significantly diminish Putin's authority. The Kremlin will also have to adjust its economy in 2012 to accommodate changes in previous plans involving billions of dollars in investments from Europe in some of Russia's most strategic sectors. The crisis in Europe means any such investments will



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be significantly reduced, so the Kremlin will have to restructure the economic plans for its modernization and privatization programs and fund many of the projects itself. Putin will be able to navigate through these obstacles, though they will take up much of the Kremlin's attention. None of these factors will fundamentally change Russia's direction either domestically or in its foreign policy.

### **Russian Resurgence**

Russia will continue building its influence in its former Soviet periphery in 2012, particularly by institutionalizing its relationships with many former Soviet states. Russia will build upon its Customs Union with Belarus and Kazakhstan as it evolves into the Common Economic Space (CES). This larger institution will allow the scope of Russia's influence over Minsk and Astana, as well as new member countries such as Kyrgyzstan and possibly Tajikistan, to expand from the economic sphere into politics and security as Moscow lays the groundwork for the eventual formation of the Eurasian Union, which it is hoping to start around 2015.

As Ukraine's chances to grow closer to the European Union decrease, Kiev will realize that Moscow is the only outside power it can turn to. Russia will be able to take advantage of Ukraine's inability to maneuver and will gain access to strategic Ukrainian assets, possibly including minority control in its natural gas transit system. However, Ukraine will continue to resist the institutionalization of Russia's influence via the CES by maintaining a degree of cooperation with the West.

In the Baltic countries -- which, unlike other former Soviet states, are committed members of NATO and the European Union -- Russia's ultimate goal is to neutralize the countries' pro-Western and anti-Russian policies, a goal it will make progress toward in Latvia in 2012. It will face setbacks in Lithuania, but Lithuania will not be able to seriously challenge Russia's maneuvers in the region because of ongoing difficulties for its primary supporters: NATO and the European Union.

### **Russia and the West**

Russia will continue managing various crises with the West -- mainly the United States and NATO -- while shaping its relationships in Europe. Moscow and Washington will continue their standoff over ballistic missile defense and U.S. support for Central Europe, and Moscow will react to the ongoing row by increasing

security pressure on Central Europe and bolstering its economic presence in the region. Russia will use these crises as an opportunity to deepen divisions among the Europeans, between the Europeans and the United States, and within NATO while promoting the perception that Russia is being forced to act aggressively. The security situation will become tenser, and Russia will attempt to push these crises with the United States to the brink without actually rupturing relations -- a difficult balance.

Russia will also use the financial and political crises in Europe to bolster its influence in strategic countries and sectors. Moscow and Berlin will continue their close relationship, especially in the areas of economics and security, but Russia will focus more on Central Europe in areas of security and energy and in picking up assets. There is no real counter to Russia in Europe, as the Europeans will be absorbed with domestic and EU issues. But this does not mean Russia has a free pass, as it must still manage the domestic effects of its neighbors' crisis.

### **Central Asia**

Numerous factors will undermine Central Asia's stability in 2012, but they will not lead to a major breaking point in the region this year. Protests over deteriorating economic conditions will occur throughout the region, particularly in Kazakhstan, though these will be contained to the region and will not result in overly disruptive violence. Serious issues in Kazakhstan's banking sector could lead to a financial crisis, though the government will be able to manage the difficulties and contain it during 2012 by using the oil revenues it has saved up.

The more pressing problem is the rising Islamist militancy in the region. Sporadic attacks will continue in Kazakhstan, and Kyrgyzstan, Tajikistan and Uzbekistan could see an increase in attacks. However, these attacks will not achieve their strategic goal of overthrowing regimes or coalesce into a transnational movement capable of destabilizing the region. In addition to these security tensions, looming successions for the longtime leaders in Kazakhstan and Uzbekistan will create political tensions, but barring the death of either leader, no major political upheavals are expected.



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### Middle East

#### *Iran and the Saudi Dilemma*

Iran's efforts to expand its influence will be the primary issue for the Middle East in 2012. The U.S. military withdrawal from Iraq has rendered Iran the pre-eminent military power in the Persian Gulf, but Tehran cannot count on the United States being as constrained beyond this year, and Turkey, Iran's natural regional counterweight, is rising steadily, albeit slowly. Iran's efforts to consolidate and extend its regional influence must therefore accelerate this year before its window of opportunity closes. Iran will still be operating under heavy constraints, however, and will therefore be unable to fundamentally alter the politics of the region in its favor.

Iran's regional expansion will be felt most deeply by Saudi Arabia. The Saudi royals now doubt that the United States has the ability or the willingness to fully guarantee Riyadh's interests. Adding to Saudi Arabia's vulnerabilities, the Gulf Cooperation Council states fear that if Iran is not contained within Iraq, it will exploit continued Shiite unrest in Bahrain and in Saudi Arabia's Shia-concentrated, oil-rich Eastern Province. In 2012, Saudi Arabia will lead efforts to shore up and consolidate the defenses of Gulf Cooperation Council members to try to ward off the threat posed by Iran, but such efforts will not be a sufficient replacement for the United States and the role it plays as a security guarantor. A critical part of Iran's regional agenda for the year will be to force Riyadh into an accommodation that benefits Iran and allows Saudi Arabia some reprieve. This could lead to temporary truces between the two adversaries, but given Iran's constraints and limited timetable, Saudi Arabia is more likely to stay committed to the U.S. security framework in the region -- for lack of better options.

#### *Turmoil in Iraq and Syria*

The effects of Iran's expansion efforts will be most visible in Iraq and Syria. In Iraq, Iran's main challenge is to consolidate Shiite power among several competing groups. As Iraq's fractured Shiite leadership tries to solidify its influence with Iranian support, Iraq's Sunni and Kurdish factions increasingly will be put on the defensive. This ethno-sectarian struggle and the security vacuum created by the U.S. withdrawal will degrade Iraq's overall security

conditions. Meanwhile, Turkey will attempt to contain the spread of Iranian influence in northern Iraq by building up political, economic, military and intelligence assets.

In Syria, the ultimate goal of Saudi Arabia, Turkey and the United States will be to disrupt Iran's Shiite arc of influence by trying to crack Syrian President Bashar al Assad's regime. However, without direct foreign military intervention, the Syrian regime is unlikely to collapse. Al Assad will continue to struggle in trying to stamp out domestic unrest. The regime's limited options to deal with the crisis will force Syria to further rely on Iran for support, which will allow Tehran to reinforce its presence in the Mediterranean.

Stratfor cannot rule out the remote possibility that the al Assad clan will be coerced into a political exit. Such an outcome would risk inciting a sectarian struggle within the regime. Iran's goal is for Syria to maintain a regime -- regardless of who leads it -- that will remain favorable to Iranian interests, but Iran's ability to influence the situation is limited, and finding a replacement to hold the regime together will be difficult. It should be noted that the battle for Syria cannot take place without spilling over into Lebanon. In that regard, Lebanon faces a difficult year as proxy battles intensify between Iran and Saudi Arabia in the Levant.

#### *Turkey's Struggles*

Overwhelmed by instability in its periphery, Turkey will continue to face significant challenges to its regional ascendancy. Despite its rhetoric, Turkey will not undertake significant overt military action in Syria unless the United States leads the intervention -- a scenario Stratfor regards as improbable -- though it will continue efforts to mold an opposition in Syria and counterbalance Iranian influence in Iraq. Ankara will thus work to maintain a decent bilateral relationship with Tehran despite growing tensions between the two. Economic conditions in Europe will slow Turkey's economic growth, Kurdish militancy in Turkey will remain a significant threat, and concerns over Turkish Prime Minister Recep Tayyip Erdogan's health could turn the government's focus inward as it tries to work through a contentious set of proposed constitutional changes. On the foreign policy front, Turkey will try to influence the rise of political Islamists, particularly in Egypt and





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Syria, but Ankara's own constraints will prevent it from taking meaningful steps in that regard.

### **Egypt's Political Transition**

Egypt's turbulent political transition likely will give rise to a parliament with a significant Islamist presence, thereby complicating the ruling military elite's hold on power. However, the democratic transition will be a partial one at best; the country's fractious opposition and impotent parliament will continue to suffer from internal divisions and will be unable to overrule the military on issues of national strategic importance. Thus, the military will remain the de facto authority of the state.

Concerns over the country's struggling economy will outweigh the military's concerns over its political opposition. Egypt's preoccupation with its economic and political issues will undermine its ability to patrol its Sinai buffer, leading to increased tensions with Israel. However, both sides will continue to maintain the peace treaty that has been the foundation of Israeli-Egyptian relations for the past generation.

### **The Hamas Agenda**

Hamas will take advantage of the slowly growing political clout of Islamists throughout the region in hopes of presenting itself to neighboring Arab governments and the West as a pragmatic and reconcilable political alternative to Fatah. These moves will help protect Hamas from the potential regime crisis in Syria (where its politburo is based) and bolster its relationships with Egypt, Jordan and Saudi Arabia. At the same time, Hamas will be on alert for tactical opportunities to undermine security in the Sinai Peninsula with the hope of creating a crisis between Egypt and Israel.

Egypt's preoccupations and Hamas' expanded room to maneuver will incentivize the Jordanian leadership to strengthen its ties with Hamas. It will also allow Jordan to manage its own unrest by building more credibility among Islamists, leverage its relations with Fatah and keep a tab on Hamas' actions as the Jordanian monarchs adjust to changing regional dynamics.

### **East Asia**

Three things will shape events in East Asia: China's response to the economic crisis and possible social turmoil amid a leadership transition; the European Union's debt crisis and

economic slowdown sapping demand for East Asia's exports; and regional interaction with the U.S. re-engagement in the Asia-Pacific region. The 2008 financial crisis exposed the inherent weaknesses of the Chinese economy, which, like its East Asian powerhouse predecessors, largely was based on a growth model driven by exports and government-led investment. While Beijing had been aware for some time of the need to shift toward a more balanced economic model, the continued slump in Europe and fears of another global slowdown have forced the government to face the challenges of economic restructuring now, rather than constantly staving them off. Even in the best of times, the redirection of an economy the size of China's would be difficult, but the pressure for change comes amid a leadership transition, when Beijing is particularly sensitive to any disruptions. With the politburo lineup changing in October and the new state leaders taking office in early 2013, the Communist Party of China (CPC) is focused on maintaining social stability to preserve the legacy of the outgoing leadership and solidify the legitimacy of the incoming leadership.

A rapid drop in economic growth poses a serious threat to China in 2012; a modest slowdown is widely expected this year due to the weakening export sector, a slump in the real estate market, and investment and risks to the banking system. Beijing is betting the decline will remain at a manageable level -- at least for a year of transition. The sharp drop in demand from Europe will harm the export sector in particular, with growth likely reduced to single digits. This declining external demand will threaten the already weakened export-oriented manufacturing industry, which has experienced rising costs in labor, raw materials and utilities as well as appreciating currency on top of its already thin-to-nonexistent profit margins. China will seek to compensate in part by refocusing on exports to the United States and expanding in emerging markets in Southeast Asia, Latin America or Africa, though this will not fully make up for the drop-off from Europe. Moreover, growing trade protectionism because of the economic downturn and political considerations -- especially the upcoming U.S. election season -- will likely put Chinese manufacturers at the center of trade frictions, making their position even more vulnerable.



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Beijing will employ traditional tools including targeted credit, tax reductions and direct subsidies to mitigate the risks of rising unemployment and bankruptcy in the financially strained manufacturing sector.

While Beijing knows that rolling out another massive fiscal stimulus and bank loans as it did in 2008-2009 is unsustainable and would put the economy at risk, it sees few other short-term options and thus will use government-led investment to sustain growth in 2012. Beijing will resume and launch a number of large infrastructure projects even at the expense of overcapacity and lack of productivity. However, accounting for around 10 percent of gross domestic product and a quarter of fixed investment, the decline in the real estate sector due to Beijing's tightening measures since 2010 represents one of the largest threats to Beijing's effort to stabilize growth. With affordable housing projects -- Beijing's plan to offset the negative consequences from falling real estate prices and weakening investment -- unlikely to reach their designated goal, Beijing may have to selectively relax its real estate tightening policy in 2012 while trying to avoid overcompensating by causing a sharp market rebound or property price inflation. The ruling Communist Party had promised it would bring these issues under control; its failure to do so could undermine the Party's credibility.

The continued high-level credit boom combined with the need to work out nonperforming loans (NPL) from the 2008-2009 stimulus will bring China into heightened NPL risk. The actual NPL ratio may rise as high as 8-12 percent in the next few years. At least 4.6 trillion yuan (\$729 billion) out of a government-estimated local debt of 10.7 trillion yuan is set to mature within two years, and Beijing expects 2.5 trillion to 3 trillion yuan of the total risk to turn sour. The NPL risk, the 2.1 trillion-yuan debt from investment in the railway system and the massive informal lending from the shadow banking system that grew significantly during Beijing's credit tightening pose a systemic risk to the banking sector. Beijing may have to take some pre-emptive actions, such as refinancing measures or capital injections, in 2012 to ensure Chinese banks are able to maintain confidence in China's financial system. China's leaders, faced with near-term stabilizing options and long-term deep reforms, will choose the former, postponing the crisis but

amplifying it when it becomes unavoidable in the future.

Given the economic uncertainty and political sensitivity surrounding the leadership transition, political elites in Beijing will attempt consensus at the highest levels. As it learned from the Tiananmen Square incident, CPC factional infighting exploited at a sensitive time is a serious risk, and we expect to see measures to ensure ideological and cultural control throughout the Party and down through the rest of society. Meanwhile, the priority to ensure a smooth transition means Beijing will be much less tolerant of actions that could spread instability, though Beijing is also cultivating pre-emptive methods for social control, such as community-level management or providing carefully controlled outlets for expressing grievances to better manage the country's social frustration, which will likely be exacerbated by the deteriorating economic situation.

Internationally, China will continue to accelerate its resource acquisition and outward investment strategy. As domestic problems mount, China may use external disputes to ease public dissatisfaction. Anticipating U.S. economic and trade pressure due to the electoral season and strategic encroachment in China's periphery, Beijing will focus its attention on reducing miscalculation and stressing interdependence in its relations with Washington while clarifying its response to the U.S. engagement. Meanwhile, China will balance nationalistic initiatives with maintaining neighborly relations -- particularly with the South China Sea claimant countries, India and Japan -- and countering perceived moves by the United States to constrain China's economic influence in the region and lines of supply. The South China Sea claimant countries, including Malaysia, the Philippines and Vietnam, will respond by accelerating their military purchases, taking advantage of the U.S. re-engagement efforts to hedge against China.

Most Asian countries -- which showed a strong economic recovery throughout 2010 and early 2011 -- will experience reduced growth amid the global economic slowdown. As the most important economic partner to many countries, China will increase its economic assistance and trade to Association of Southeast Asian Nations



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countries to leverage its influence. Beijing hopes to again project economic power in the region through aid, the import of consumer goods, currency swaps and regional trade agreements, but Beijing's role may also face challenges by renewed interest from other nations -- for example, the United States and Japan.

The death of North Korean leader Kim Jong Il has increased uncertainty on the Korean Peninsula. The first six months of the year will be critical as the unity of the regime is tested amid the leadership transfer. The leadership structure between civilian and military elements was established in recent years to strengthen the role of the Workers' Party of Korea as one of the pillars of power and to rebalance the military's role, but the process was not yet complete at the time of Kim's death. North Korean leaders are unlikely to fundamentally change the direction of Pyongyang's foreign policy in the near term. Their attention initially will be focused internally, and they will seek to avoid any sudden shift in policy that could destabilize the regime or significantly increase foreign pressure. China will look to make a push to ensure even greater influence on the Korean Peninsula during the transition period. In addition, bilateral discussions with the United States on resuming the six-party nuclear talks were showing progress before Kim's death, and Pyongyang is likely to restart these discussions sometime during the year.

### **Latin America**

#### **Mexico**

Through the first half of 2012, Mexico will be enmeshed in campaigning for its July 1 presidential election. The country faces the possible end of what will be 12 years of rule by the National Action Party (PAN). Faced with public condemnation of rising violence, the PAN has lost a great deal of credibility over the past five years, something likely to benefit the Institutional Revolutionary Party and the newly unified Revolutionary Democratic Party. We expect no major legislative action under the administration of outgoing President Felipe Calderon as the three main parties compete for public approval. The new president takes office Dec. 1, meaning most of the new administration's major policy moves will not occur until 2013.

Regardless of any change in party, Mexico's underlying challenges will remain. The

country's drug war rages on, with Los Zetas having consolidated control over most of Mexico's eastern coastal transportation corridor and the Sinaloa cartel having done the same in the west. Both cartels have a significant, growing presence in Central America and relations with South American organized crime. We expect the cartels to intensify their efforts to extend control over regional supply chains in 2012, although the Mexican cartels will remain dependent on relationships with local organized crime in other transit and producing countries. Despite significant territorial control in Mexico by Sinaloa and Los Zetas, numerous smaller criminal entities are still struggling for access to key transport hubs such as Acapulco. Meanwhile, the two main cartels will continue to attack each other in critical transit cities such as Veracruz and Guadalajara.

Continued inter-cartel competition among Mexico's diverse criminal groups will prevent any kind of alliance between Los Zetas and Sinaloa that allows them to abandon violence in favor of more profitable smuggling conditions. Similarly, the government faces severe constraints on its counter-cartel activities. It cannot afford to be seen publicly backing away from attempts to rein in violence. At the same time, any significant uptick in military offensives against the cartels carries the risk of intensifying the violence. The government will therefore attempt to emphasize social and economic policies while maintaining its current, high-tempo counter-cartel strategy.

#### **Brazil**

Brazil will spend 2012 focused on mitigating shocks to trade and capital flows from the crisis in Europe. However, with only 10 percent of Brazil's gross domestic product dependent on exports, Brazil is much less vulnerable than many other developing countries. In politics, Brazil will remain focused on trying to strike a balance between growth and inflation during the expected slowdown with judicious fiscal outlays and monetary expansion. Brazil will thus remain primarily focused on domestic issues through 2012. Trade protectionism will play a strong role in efforts to shield vulnerable industries. With global trade slowing, China will look for alternative export markets; these two trends will drive increased bilateral tensions between China



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and Brazil over the next year. Key Brazilian domestic issues will include ongoing city and border security initiatives; social welfare programs; infrastructure construction; and the development of, and politics surrounding, Brazil's petroleum reserves.

### Venezuela

Uncertainty surrounding the health of Venezuelan President Hugo Chavez makes it difficult to forecast the precise direction of Venezuelan politics in 2012. There will certainly be continued speculation about a potential successor from the Chavista elite, and growing dissatisfaction with the status quo among Chavez's base will be a prominent political force. Meanwhile, the political opposition parties -- which at this point appear prepared to unite behind a single candidate to be selected in February -- will make their most credible play for power in a decade. Under these conditions, the 2012 election will serve as a disruptor of Venezuelan politics. While the exact details of the outcome are unpredictable, 2012 will likely see some sort of power transition away from Chavez.

Regardless of who holds power at the end of the year, 2012 will continue to be characterized by growing domestic economic uncertainty, periodic infrastructure failure and poor distribution of basic goods. Dissatisfaction with these and other socio-economic issues will drive further protests, but the majority of political action will be centered on the election.

### Cuba

Cuba's slow and cautious transitional measures can be expected to continue in 2012. Key reforms such as making credit and private property available to individuals are under way, and similar reforms, including attempts to loosen travel restrictions, can be expected in the next year. Cuba's ultimate international challenge is to balance the liberalization demands of the United States with its need for subsidized Venezuelan oil. A sudden disruption of these shipments is unlikely, but a political shift in Venezuela could force Cuba to reach out to the United States as a much more powerful -- but also more politically invasive -- economic partner.

## Sub-Saharan Africa

### Somalia

In 2012, a containment strategy will solidify against Somali jihadists -- both the transnationalist group al Shabaab and its nationalist rival, the Somali Islamic Emirate. This strategy will have three elements. The first will feature African Mission in Somalia (AMISOM) forces consolidating their presence in Mogadishu. These forces include peacekeepers from Uganda, Burundi and Djibouti, and additional forces from Sierra Leone will be deployed soon.

In the second part of the strategy, Kenyan troops will strengthen the cordon along the Kenyan border with southern Somalia. The 4,000 Kenyan troops there, nominally part of AMISOM, will hold territory and interdict Somali jihadists moving about the area. Lastly, Ethiopian forces will fortify a cordon along Ethiopia's border with central Somalia, also attempting to hold the territory and interdict jihadists.

To deny the Somali militias propaganda material, AMISOM, the Kenyans and the Ethiopians will not push deep into Somali territory to engage the jihadists. Instead, local militias employing guerrilla tactics will fight the jihadists within the containment zone. The combined efforts will successfully disrupt the jihadists' lines of supply, but they will not bring about their defeat. The United States will continue covert action in the Somali theater. U.S. special operations forces and unmanned aerial vehicles will collect and share intelligence with the Somali government and its allies. Additionally, U.S. forces in East Africa and the Horn of Africa will remain poised to strike high-value Somali jihadists or senior al Qaeda targets, should the opportunity arise.

### Nigeria

Nigeria will see sustained militant violence in its northern region. Aggrieved political elites in the north, believing the government of President Goodluck Jonathan stole political power from them, will seek to use the Boko Haram militant group to their advantage. As part of their campaign to regain political power in 2015 national elections, these northern politicians will provide Boko Haram with arms and funding while protecting it politically.

This will enable the group to carry out frequent attacks on Nigerian



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government and civilian targets in its core area of operations in the country's northeast and northwest. Boko Haram will also conduct operations in the Nigerian capital of Abuja, but these will be rare. Boko Haram's statements will be jihadist and fierce, but the nature of its support will prevent it from carrying out attacks that would trigger an international response and result in a loss of leverage for northern Nigeria's political elite, such as transnational operations or attacks against foreign political or commercial facilities in Nigeria.

The Niger Delta in the south will also see a slow but steady return to militant violence. Though the Jonathan administration has stated that it will serve only from 2011 to 2015, divisions will start to emerge within the Jonathan camp over whether a single term is sufficient. Like their peers in northern Nigeria, political elites in the Niger Delta region, including Jonathan, will start reactivating alliances with regional militant groups such as the Movement for the Emancipation of the Niger Delta (MEND).

Attacks by MEND or other Niger Delta militants in 2012 will be infrequent and ultimately will not threaten oil production. However, they will form the basis for a counter-campaign by the Niger Delta political elite to demand political patronage while the region's elite decides whether to run for the ruling party's nomination for the presidency in the next elections.

### Arson: A Destructive Weapon

Source: <http://www.usfa.fema.gov/fireservice/subjects/emr-isac/infograms/ig2012/2-12.shtm#2>

An [article](#) at Fire Engineering.com discussed

### Sudan

Domestic opposition in Sudan and South Sudan will prevent both governments from signing a legally binding oil revenue-sharing accord. Instead, they will accept the continuation of ad hoc agreements regarding the distribution of oil revenues. Additionally, U.N. peacekeepers will maintain their deployments in South Sudan and Darfur to respond to border clashes between militias on both sides of the Sudan-South Sudan border. It will take much of the year, but Khartoum and Juba will settle into an informal understanding over border demarcation.

### South Africa

South Africa will remain focused on internal rivalries that will inhibit its ability to consolidate its influence in the southern African region. The ruling African National Congress (ANC) will contend with internal rivalries as it moves toward a leadership convention and election in December 2012. South African President Jacob Zuma will be working to secure a second term as ANC president, a post that would effectively make him the party's candidate for South African president in 2014 elections. Simultaneously, the Zuma camp will work to ensure that no rival faction in the ANC gains enough momentum to challenge Zuma.

that the community of Novato in California has been plagued by 50 arson fires in recent days.

Although all the blazes have been quickly doused, the Novato Deputy Fire Chief said the fires could have been deadly or caused serious damage.

Another [article](#) at the WashingtonPost.com reported that a man confessed to a string of New Year's Day arson attacks at a cultural center and four other sites in New York City. In this case, there were no injuries and only little damage to most sites.

According to the U.S. Fire Administration's National Fire Incident



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Reporting System data and the National Fire Protection Association, an estimated average of over 300,000 intentional fires are reported to fire departments in the United States each year. These fires cause needless injuries to nearly 8,000 firefighters and civilians, and an estimated \$1.1 billion annually in direct property loss.

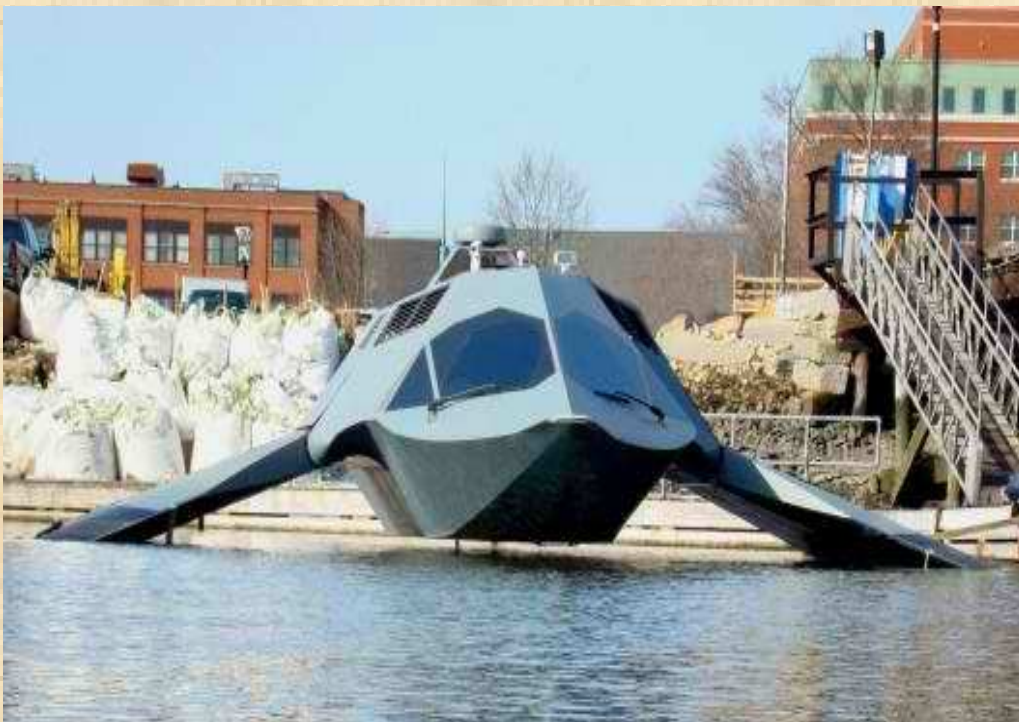
When reviewing the National Arson Awareness Week Media Kit, the Emergency Management and Response—Information Sharing and Analysis Center (EMR-ISAC) learned that

arson destroys more than buildings. It can trigger the loss of jobs, business revenue, tax dollars, and a decrease in property values. This heinous crime is particularly devastating because "it can rob a community of its valuable assets, lives, and property."

Additional arson facts, prevention information, and deterrence projects such as the Arson Watch Program can be seen in the media kit mentioned above, and also at the U.S. Fire Administration Arson website.

### Prototype GHOST military watercraft claims a world's first

Source:[http://www.gizmag.com/ghost-super-cavitating-military-boat/21137/?utm\\_source=Gizmag+Subscribers&utm\\_campaign=eaf371d2c7-UA-2235360-4&utm\\_medium=email](http://www.gizmag.com/ghost-super-cavitating-military-boat/21137/?utm_source=Gizmag+Subscribers&utm_campaign=eaf371d2c7-UA-2235360-4&utm_medium=email)



If you combined a stealth jet fighter and an attack helicopter and stuck them in the water, what would you get? Well, according to the folks at New Hampshire's Juliet Marine Systems (JMS), you'd get the GHOST marine platform. Privately developed for possible use by the U.S. Navy, the boat would reportedly be invisible to enemy ships' radar, while also being faster and more economical than existing military vessels. The company's *big* claim, however, is that GHOST is the world's first super-cavitating watercraft.

Supercavitation, in a nutshell, involves surrounding an object with a bubble of gas, so it can pass through the water with very little

friction. In the case of GHOST, the objects in question are its two submerged buoyant tubular foils. Although the company isn't clear on how the process works, presumably the foils would have to be designed in such a way that when GHOST's gas turbines thrust it forward, water is deflected outward at the front of each foil, creating an envelope that closes behind it.

Whatever the case, JMS states that "GHOST is a combination aircraft/boat that has been designed to fly through an artificial underwater gaseous

environment that creates 900 times less hull friction than water." Judging by that statement, it's hard to say if GHOST actually *does* create 900 times less friction, or if that's simply what



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they're aiming for.

The three-crew-member watercraft is intended primarily to patrol the perimeter of naval fleets, ready to spring into action against attacking small enemy boats. It is also being marketed as a means of protecting commercial vessels against pirate attacks. It can reportedly carry "thousands of pounds of weapons, including Mark 48 torpedoes" in an internal weapons bay, and could incorporate multiple weapons systems, capable of firing on several targets simultaneously.

### False Flag

Source: [http://www.foreignpolicy.com/articles/2012/01/13/false\\_flag?page=0,0](http://www.foreignpolicy.com/articles/2012/01/13/false_flag?page=0,0)

Buried deep in the archives of America's intelligence services are a series of memos, written during the last years of President George W. Bush's administration, that describe how Israeli Mossad officers recruited operatives belonging to the terrorist group Jundallah by passing themselves off as American agents. According to two U.S. intelligence officials, the Israelis, flush with American dollars and toting U.S. passports, posed as CIA officers in recruiting Jundallah operatives -- what is commonly referred to as a "false flag" operation.

The memos, as described by the sources, one of whom has read them and another who is intimately familiar with the case, investigated and debunked reports from 2007 and 2008 accusing the CIA, at the direction of the White House, of covertly supporting Jundallah - a Pakistan-based Sunni extremist organization. Jundallah, according to the U.S. government and published reports, is responsible for assassinating Iranian government officials and killing Iranian women and children.

But while the memos show that the United States had barred even the most incidental contact with Jundallah, according to both intelligence officers, the same was not true for Israel's Mossad. The memos also detail CIA field reports saying that Israel's recruiting activities occurred under the nose of U.S.

It could also serve as a quiet, stealthy means of transporting troops to enemy beaches, or as a fast and efficient way of ferrying people and supplies to and from locations such as offshore oil platforms.

While there's presently no word on whether or not GHOST has any takers, JMS claims to be already working with a large international defense company on a 150-foot version of the craft, and on creating an unmanned underwater vehicle that utilizes its super-cavitating technology.

intelligence officers, most notably in London, the capital of one of Israel's ostensible allies, where Mossad officers posing as CIA operatives met with Jundallah officials.

The officials did not know whether the Israeli program to recruit and use Jundallah is ongoing. Nevertheless, they were stunned by the brazenness of the Mossad's efforts.

"It's amazing what the Israelis thought they could get away with," the intelligence officer said. "Their recruitment activities were nearly in the open. They apparently didn't give a damn what we thought."

Interviews with six currently serving or recently retired intelligence officers over the last 18 months have helped to fill in the blanks of the Israeli false-flag operation. In addition to the two currently serving U.S. intelligence officers, the

existence of the Israeli false-flag operation was confirmed to me by four retired intelligence officers who have served in the CIA or have monitored Israeli intelligence operations from senior positions inside the U.S. government.

The CIA and the White House were both asked for comment on this story. By the time this story went to press, they had not responded. The Israeli intelligence services -- the Mossad - were also contacted, in writing and by telephone, but failed to respond.

As a policy, Israel does not confirm or deny its involvement in intelligence operations.



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There is no denying that there is a covert, bloody, and ongoing campaign aimed at stopping Iran's nuclear program, though no evidence has emerged connecting recent acts of sabotage and killings inside Iran to Jundallah. Many reports have cited Israel as the architect of this covert campaign, which claimed its latest victim on Jan. 11 when a motorcyclist in Tehran slipped a magnetic explosive device under the car of Mostafa Ahmadi Roshan, a young Iranian nuclear scientist. The explosion killed Roshan, making him the fourth scientist assassinated in the past two years. The United States adamantly denies it is behind these killings.

According to one retired CIA officer, information about the false-flag operation was reported up the U.S. intelligence chain of command. It reached CIA Director of Operations Stephen Kappes, his deputy Michael Sulick, and the head of the Counterintelligence Center. All three of these officials are now retired. The Counterintelligence Center, according to its website, is tasked with investigating "threats posed by foreign intelligence services."

The report then made its way to the White House, according to the currently serving U.S. intelligence officer. The officer said that Bush "went absolutely ballistic" when briefed on its contents.

"The report sparked White House concerns that Israel's program was putting Americans at risk," the intelligence officer told me. "There's no question that the U.S. has cooperated with Israel in intelligence-gathering operations against the Iranians, but this was different. No matter what anyone thinks, we're not in the business of assassinating Iranian officials or killing Iranian civilians."

Israel's relationship with Jundallah continued to roil the Bush administration until the day it left office, this same intelligence officer noted. Israel's activities jeopardized the administration's fragile relationship with Pakistan, which was coming under intense pressure from Iran to crack down on Jundallah. It also undermined U.S. claims that it would never fight terror with terror, and invited attacks in kind on U.S. personnel.

## Spike in violent incidents in hospitals

Source: <http://www.homelandsecuritynewswire.com/dr20120123-spike-in-violent-incidents-in-hospitals>

Over the past decade, hospitals across the nation have been subject to an alarming

increase in violent incidents, including homicides, assaults, and rapes compared to the previous five years.



increase in violent incidents. In the last five years alone, there has been a nearly 300 percent increase in the number of reported

homicides, assaults, and rapes compared to the previous five years. "There was that day when hospitals were safe havens but what we've seen in the past eight or ten years is that has shifted," said George Mills, director of engineering at the Joint Commission, which accredits more than 19,000 hospitals nationally. "People will now go to hospitals to finish whatever [crimes] may have started somewhere else. Hospitals have more lock-down situations."

According to statistics from the Joint Commission, there were 177 reported assaults, rapes and homicides at hospitals in the last five years, compared with 61 cases in the previous five years. The actual number of violent incidents is likely

higher as many go unreported. Most recently, on 6 January, a man walked into the intensive care unit of a hospital in Fort





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Oglethorpe, Georgia and killed his estranged wife and mother-in-law.

“Every hospital across the country is probably reviewing their security this morning,” said Gregg Gentry, the head of human resources at Erlanger Health System, the hospital where the shooting occurred, following the incident. “As these situations happen, it makes us pause and think through everything. It is our goal to provide the safest environment for our staff, patients and visitors.”

Securing hospitals is a particular challenge as a delicate balance must be struck between security and openness as they are primarily places of healing with family members and employees freely passing in and out.

“Hospitals are literally a powder keg,” said Bryan Warren, director of the International Association for Healthcare Security and Safety. “They are open twenty-four hours a day, seven days a week, 365 days a year. It can be a very emotional place.”

Security threats vary widely from hospital to hospital, ranging from gang violence in large urban facilities which treat patients involved in gangs to drunk and disorderly conduct.

There is currently no national standard or guidelines for hospital security, so safety measures differ from hospital to hospital with some relying on armed guards and metal detectors and others using unarmed guards and security cameras.

As part of its accreditation process, the Joint Commission visits each hospital to assess its security policies and procedures.

“We go out and survey the building,” said Mills. “If the hospital says they challenge people who come into the emergency room, we walk into the emergency room to see if that is actually happening.”

In a June 2010 study, the Joint Commission noted that several problems lead to violence in health care facilities including poor leadership and a lack of staff training. In 62 percent of violent incidents, poor leadership, particularly in terms of policy and procedure, was to blame, while in 60 percent of incidents, lack of training and other human resources issues were to blame.

Despite the spike in violence in recent years, technology and an increased attention to security following 9/11 have created a far more secure environment than in the past.

“There is no comparison with what we have in place now,” said Glen Johnson, who, in 1994, took over as the head of security at Memorial Hospital in Georgia.

According to Warren, even with improvements in technology and procedures, the key to maintaining security in hospitals is a general level of awareness from every employee including volunteers in the gift shop to doctors.

“You have to get everyone involved to increase that collaborative environment,” Warren said. “Anything can happen anywhere. We need to get out of the mindset that if it hasn’t happened yet, it won’t.”

### Wireless underground robots for first responders

Source: <http://www.homelandsecuritynewswire.com/dr20120207-wireless-underground-robots-for-first-responders>

First responders may have to look for victims in hostile or challenging environments, such as clandestine tunnels, subway systems, and underground structures; sending a wireless robot to look around and pull victims out would be safer.

Allen-Vanguard announced the other day its collaboration with WFS Defense, a supplier of through-ground and through-water wireless communications technology, to develop and demonstrate the what the company describes as the

industry’s first Wireless Underground Robots for First Responders (WURFR) robotic



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vehicle. The announcement was made on the opening day of the Security & Policing Exhibition 2012, in Farnborough, United Kingdom.

During emergency incidents, first responders deploy Remotely Operated Vehicles (ROVs) to avoid exposing themselves to unnecessary risks in hostile or challenging environments, such as clandestine tunnels, subway systems, and underground structures. The WURFR project, co-funded by the U.K. Technology Strategy Board, will alleviate the logistics currently posed by hardwire tethers or multiple repeaters needed to control a robot in these situations. This will be achieved through the seamless integration of WFS's through-ground wireless communications into Allen-Vanguard's Digital Vanguard robot.

Allen-Vanguard president & CEO, Dennis Morris, commented: "Our WURFR-generation robot will improve First Responder safety by enabling operators to remain above ground while reliably communicating with their ROV as it conducts visual reconnaissance, detects hazardous substances and mitigates threats." He continued, "This unprecedented capability will greatly simplify on site operations and reduce costs for inspecting and clearing high risk underground locations."

The WURFR-enabled ROV will use WFS' wireless modems to provide 2-way communications, track its location, stream video, and convey data from sensors. Allen-Vanguard's Digital Vanguard is a suitable platform for this project based on its operational capabilities and large user base of first responders and security agencies.

## Feb 2012 Riots in Athens, Greece



## The Strategic Challenge of Riots

Riot Action and Crowd Power

By John Sullivan and Adam Elkus

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**Abstract:** Are we entering an age of disorder? Recent events worldwide, and the continuing threat of global economic downturns, suggest the potential for large-scale civil disturbances. If so, public order maintenance and containing riots and disturbances will



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*become key concerns as states and their security forces (the police and military) respond to an age of political and economic uncertainty. An operationally sound response to riots, mobs, and other forms of disorder has strategic implications for governments across the world. This essay looks at the dynamics of riots and order maintenance. We examine the politics of crowd power in a networked environment and suggest approaches to develop sound intelligence to understand the range of riot and crowd control issues that security services encounter in urban riot control. While the complex operations literature has understandably focused on overseas operations, domestic public order maintenance is an equally demanding undertaking with far-reaching political consequences. Operations must simultaneously prevent harm and disorder while avoiding provocation and respecting the right to voice dissent. Managing public order, in turn, requires an understanding of the nuances of crowds and mobs and the dynamics of domestic interagency coordination.*

Economic turmoil, a lack of opportunity—perceived or actual—and the seeming emergence of a networked global protest movement suggest that police and military services need to prepare for a range of public order missions. As the London riots, growing “Occupy Wall Street” and “Indignados” movements suggest, disorder, protest, disturbances, and urban unrest are once again key security issues. During the Rome riots, cars were torched and banks and public buildings were attacked, demonstrating that economic populist movements connecting the “have-nots” or economically fragile can create a powerful backlash.

As the London and Rome riots so painfully demonstrate, mass social disturbances are not just a matter of policing or crowd control tactics. In his review of operational riot intelligence, Alex Calvo recently noted that the riots in London and other UK cities were punctuated with accounts of “flashpoints where the population was left unprotected in the face of what could be described as a combination of urban guerillas and occasional criminal insurgents.”<sup>[1]</sup> Riots are a bridge between tactical disturbance and wider social unrest, with possible violent implications.

Government failure to correctly handle civil disturbances can have wide-ranging strategic consequences. The threat of violent crowds—whether mostly spontaneous or the result of deliberate provocation and instigation—is perhaps the oldest internal threat to organized governance. From the ancient world to the era of totalitarianism, intellectuals and politicians have feared the wrath of the crowd and placed a premium on restraining political and criminal mob violence. While the fundamentals of riot control—a firm hand that applies overwhelming yet proportional suppressive force at the outset of civil unrest—have not changed, the challenge of 21st century civil disturbances

demand a more cohesive style of command. Key to riot suppression in future actions is the ability to organize tactical actions in time and space to accomplish strategic objectives.

Riots are neither purely “political” nor “criminal events.” We are tempted to view them as either rebellions of the repressed or pure criminality. They arise from a complex array of motivations ranging from political grievance to pure boredom. Some mass social disturbances—like the perennial tendency of Los Angeles sports fans to riot after LA Lakers games—are completely criminal in nature and reflect the influence of strong drink rather than socioeconomic inequalities. Others, like the 1864 New York Draft Riots, are the violent outcome of larger political disturbances. Most riots are a combination of both “criminal” (profit and experience-seeking) and “political” (disputes over justice and power relations) causes.

Broadly “political” causes lie in the background of many riot situations. A recurring theme in mob violence is the struggle for political power. The Gracchi brothers, who tried to further the power of the Plebeians in ancient Rome, were murdered by armed mobs of aristocrats. The history of Italian city-states, particularly Machiavelli and Dante’s home of Florence, is marked by internecine conflict and civil war. In Iraq, Muqtada al-Sadr and other local figures have been remarkably successful in instigating crowds of followers to engage in violent protests. Mobs—instigated by charismatic figures—are the oldest tool in organized politics for securing power and influence. Perhaps the most famous example of crowd power in literature is Shakespeare’s rendition of Mark Anthony’s funeral speech oration for Julius Caesar, which incites the mob to drive Gaius Brutus and his fellow conspirators from Rome.



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United Nations peacekeeping and stabilization missions have also repeatedly dealt with crowds of militia and supporters of local warlords in many nations who aim to present them with the hard choice of using force—and hurting unarmed civilians—or ceding ground and possibly endangering their own lives. Such operations are made even more difficult by the intermixing of armed men with protesting civilians, and the presence of the mass media. Deep political, ethnic, and economic divides have also historically sparked rioting. Ethnically inspired riots have been particularly pernicious, as communities have increasingly grown less ethnically homogenous. This is not to say, however, that they are always the product of “ancient hatreds.” Many civil disturbances that are thought to be the product of spontaneous eruption of never-ending tribal hatreds are in fact the consequence of deliberate instigation by political elites seeking to manipulate existing prejudices for their own advantage or the actions of irregular groups fighting for larger political causes. This is not purely a modern issue, as the recurring horror of the blood libel in Europe over the centuries reflected deliberate instigation of mass violence against Jews. Conversely, not every riot has a clear point of origin. Academic research and practical experience has long shown that riots are a “tipping point” phenomenon. A small group of violent rioters is all that it takes to derail a peaceful protest and generate increasingly high-intensity property violence and motivate less politically motivated looters to take to the streets.<sup>[2]</sup>

### The Range of Action: Typology of Disorder and Riots

Riots are complex events. Their complexity lies not only in the range of motivations, but the fact that riots—or violent outbursts of mass action—occur within a spectrum of crowd and mob activity resulting from a variety of underlying and proximate causes. This is further complicated by the fact that they are transient events that generally occur at low frequency making preparedness problematic for both political and security authorities. At the simplest level, riots can result from the spontaneous convergence of a number of contributory factors fueled by the acute interaction of precipitating events with a specific catalyst at a specific flashpoint. For example protests (which are generally lawful

and protected speech) can erupt into disorder when demonstrators are confronted by counterdemonstrations or unskilled police response (known as “police riot.”) Another variation of spontaneous eruption is the case of “celebratory” sports riots. At the other end of the spectrum are organized, deliberate violent outbursts, such as football (soccer) hooliganism or orchestrated political violence. A variation that may fall into either spontaneous or orchestrated events is the “flash mob.”

### Crowds and Mobs

Different levels of mobs exist. At the highest end of the mob power spectrum are disorganized militia that cannot quite be called professional soldiers nor designated entirely civilians, who swarm with cheap weapons and even their bare hands. Perhaps the largest and most gruesome example of militia mobs is the 1994 Rwandan genocide, painstakingly organized by Hutu political elites. Historically, these riots require some level of organization or at least consistent political mobilization—especially if risk exists or the task is too large for spontaneous organization. Even so, political mobilization is no guarantee of effectiveness in the face of cold, hard, steel. Napoleon’s famous “whiff of grapeshot” blew away political opponents that surely would have butchered him and the assembled Directory holding court at the Tuileries in 1795 if their fervor had not been met with overwhelming violence.

At the lowest end of the spectrum are rioters in major metropolitan cities, usually unarmed and mainly seeking to carry out opportunistic crimes to take advantage of the temporary lifting of domestic order. These riots are as much a product of rioters taking the path of least resistance—casually looting storefronts and avoiding police patrols as they scamper to bring their new high-def flat screens home—as strong and passionate rage.

A typology (or order of battle) describing the range of actors that may become involved in disorder and riots is useful. Crowds can be casual, cohesive, expressive or aggressive. Crowds can morph into mobs with the right catalyst(s). Mobs can be aggressive, expressive, acquisitive, or seek escape. All of these variations are possible in hybrid combinations.<sup>[3]</sup> A brief



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description of each crowd/mob variation follows.

*Casual crowds* are composed of individuals gathered in a common space with no common purpose; they have no emotional tie to the crowd. *Cohesive crowds* assemble for a common purpose such as a sports event or concert; members identify themselves as individuals but the collective can possess strong internal discipline and react with high levels of emotion. *Expressive crowds* gather for a unified purpose such as a demonstration or protest, they have common purpose and display of range of emotions. They can become frustrated and agitated and quickly erupt if frustrated or provoked. *Aggressive crowds* have a strong unity of purpose and a strong sense of group identity. They can be stimulated or provoked into destructive and lawless behavior. They are the most dangerous crowd form since they can transition into an aggressive mob.

*Aggressive mobs* engage in violent and lawless behavior. Violence is usually transient and can be directed against persons or property. These are primarily emotion-driven and can trigger sustained rioting. *Expressive mobs* view violence as a legitimate tool of rebellion, resistance, or protest. *Acquisitive mobs* seek to acquire something. They can be looters exploiting chaos or confusion. They have little emotional investment and can be controlled effectively by police intervention. The final mob type is the *escape mob*, or persons fleeing imminent danger. These are extremely difficult to control since they are sustained by fear.

*Orchestrated Political Violence or the "Deadly Urban Riot"*

Horowitz described a range of orchestrated political violence in his landmark work *The Deadly Urban Riot*.<sup>[4]</sup> These violent episodes are all characterized by selective targeting. They include: violent protests, pogroms, feuds, lynchings, genocides, terrorist attacks, gang assaults, and ethnic fights. They can be used individually or in a range of hybrids, such as the contemporary narco-blockades (or *narcobloqueos*) seen in Mexico's criminal insurgencies. The blogger Shlok Vaidya has also reported on *bandhs*, large-scale infrastructure disruption by crowds in India and their usage as a political tool.<sup>[5]</sup> The culmination of the orchestrated disorder is the deadly urban riot (or communal violence). These can be concentrated (occurring in a

single location) or dispersed (occurring at multiple locations in a single neighborhood, city, or region, multiple cities or finally globally networked in multiple cities across multiple regions).

### Networked Disorder

Contemporary disorder, protest, riots, and communal violence can be events can be focal, distributed, or networked. That is, they can occur in a range of settings due to advances in Internet Communications Technology (ICT). New media, such as social networking sites and tools allow mobs to coordinate and synchronized their actions.

ICT acts, in this context, as a force multiplier. As Jack McDonald notes, historically, one of the major advantages of the state was information dominance. The state and its bureaucracies used superior access to information as a tool to mass larger amounts of resources against its opponents. Politically "neutered" populations gradually ceded the ability to make violence to the state and its security services. Of course, this ability never really went away, but always lay dormant—contingent on perceptions of the state's power and legitimacy. The ability of individuals to organize themselves using person-to-person (P2P) technologies enhances the traditional small core of rioters always seen at the forefront of violent disturbances. The essence of flash-mobbing is the ability to create highly focused bursts of intense violence. This resulting "democratization" of violence allow a few people to turn a large city upside down.<sup>[6]</sup> McDonald is also echoed by the netwar literature pioneered by John Arquilla and David Ronfeldt.<sup>[7]</sup> Perhaps the most important insight of the netwar literature is that riots and street revolutions are a product of diverse groups of actors—activists, opportunistic looters, anarchist "black bloc" members, and other networks—coalescing on a single spot. Indeed, in revolutionary "coup d'street" as the fabric of order and state dominance breaks down, direct action—whether for political purpose, criminal gain, or sheer boredom—becomes more viable. The implications of this convergence, as Bruce Crumley notes, is more violence spread around a larger geographic area and with actors not typically seen in the typical American and European riot experience, such as well-off students and



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professionals in addition to the stereotype of the typical aggrieved slum-dweller.<sup>[8]</sup>

Corresponding to the increasing diversity of actors and network mobilization is the rise of “global cities”—large, extended sprawl zones that serve as hubs of commerce and cultural relations, and their dark cousins, slum-cities, that expand large global sums to form large mega-cities of terrifying size and scale. As Sophie Body-Gendrot notes, these spaces and the economic and political mismatches they engender are flash rods for disruption.<sup>[9]</sup> The rise of “global cities” and “global slums” can result in networked diasporas of discontent that may fuel future riots and revolt.

However, the network form is not so much important in the case of mass social disturbances as the *tactical* dynamics of swarming and the stresses this places on police response. Police are good at responding tactically to individual threats, and if need be flooding an entire city with numbers if they can afford them. Yet high-impact violence geographically distributed across a large urban operational space—and in some cases several cities at once—imposes massive coordination costs on a threadbare command and control system optimized for dealing with one incident at a time. Police are spread thin, finding themselves unable to marshal enough force to deal with incidents that are concentrated in time rather than space. In the military, the art of using tactics to build a larger portrait that corresponds to the needs of strategy is the art of operations. Yet in the police sphere this understanding is sparse.

### Operational Art for Public Order Management

The lack of appreciation and application of police operational art unfortunate, as riot response is one of the most important truly “operational” police situations. The defense of a large, complex capital city or urban center—such as London, the District of Columbia, or Los Angeles—bridges policy and strategy concerns with very minute and detailed tactical maneuvers and movements.

Police and emergency response to riots is truly a “whole of government” operation in miniature, requiring integration between political executives, the interagency community, and dispersed police commands struggling to concentrate their scattered sector-level concerns into a unified operational response.

The function of operations are to make tactics achieve strategy, and serve as a kind of connective tissue binding purely spatial tactical actions into a coherent mass that serves an overall strategy of suppression. A large urban center and its peripheries (for large-scale, countrywide disorders), for police and paramilitary services, is essentially a theater of operation requiring the integration of theater strategy-like cognitive and planning devices.

The essence of containing a riot in progress is quick action to contain trouble spots before they metastasize, cancer-like, into greater dysfunction. As McDonald notes, in some ways the metaphor of putting out forest fires is very accurate. While this sounds simple enough in practice, there are a number of factors that can result in ruined cities and intense political blame games.

At the top level, strong political direction is needed to contain the situation. Policing—always a high-stress endeavor—is also an outgrowth of municipal (and the case of riots in capitol cities, national) politics. In Los Angeles, the impact of the Rodney King beating induced excessive political caution that impeded the ability of the Los Angeles police department to train effectively for civil disturbances that might result afterwards and restrained police from deploying in strength during riot itself. Poor coordination and distrust between the mayor and the police chief also resulted in a confused and disaggregated planning and response.<sup>[10]</sup>

At the police executive level, systematic training and drills on both agency and multi-agency levels for civil disturbances and mass arrest situations are essential. Specific plans for civil unrest must be communicated, and the police executive must command in person. At the level of the emergency operations command, a breakdown in both the physical and human elements of command and control networks are often decisive as police commands find themselves isolated and overwhelmed by operational frictions. At the lowest level, proper personnel and equipment, logistical and technical support, and a willingness to engage emerging incidents are essential tactical elements of riot response.<sup>[11]</sup> During riot operations officers, without firm operational direction, revert to a reactive tactical mode. A lack of direction and coordination results in excessive force, poor discipline, tactical timidity in the face of



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danger, and poor force flow to trouble spots.

A key to operational response in riots is the civil equivalent all-arms capabilities. A major urban region hoping to quell a mass disturbance, like the Marine Air-Ground Task Force (MAGTF) must have all of the necessary assets necessary to carry out full-spectrum stabilization. Emergency response means far more than riot gear and mass arrests. Tactical medical response, fire control, aerial reconnaissance, and bomb squad and counter-explosive operations are only a sampling of the many functions that civil authorities must deal with in high-intensity riot situations. Obviously the key to employing them is a resilient and effective organization and command and control organization.

In the United States, the Incident Command System (ICS) provides a standardized model of unity of command across organizations. Yet ICS alone is unlikely to provide the cohesion necessary to manage fluid incidents in time. One alternative—yet ICS-compatible—model of disaster response is the Emergent Multi-Organizational Networks (EMONs). Developed in the late 80s by Thomas Drabek, the concept calls for a temporary organization that can be scaled up and down as need be as disasters either expand or lessen. EMONs, while decentralized in execution, have a clear chain of command and delineated roles for multiple organizations. Former Los Angeles Sheriff's Department officer and police theorist Sid Heal would later use the EMON and the MAGTF concepts as the centerpiece for his police tactics book *Sound Doctrine*.<sup>[12]</sup> Organizations are also only as effective as their ability to manage situations in time, something that requires full-scale watch capabilities, particularly in collecting, analyzing, and disseminating tactical and operational intelligence in real-time.

Even more important than riot action is proactive policing. In a multicultural environment, a consistent effort to carry out effective community policing to develop a presence in communities regarded by police as “no-go” areas is necessary. The alternative model, a “raiding” concept in which police contact with locals consists mainly of sharp raids and gunfights followed by tactical withdrawal—does little and starves police of information and community knowledge necessary to quell riots. During tense incidents that have yet to erupt into force, overt show-of-

force can actually be counterproductive compared to more dispersed patrolling and crowd control designed to quickly break up small disturbances and pre-empt large-scale disorder. Intelligence preparation for operations (IPO), a modified form of the military Intelligence Preparation of the Battlespace (IPB) concept also can help police pre-empt riots by making arrests, identifying likely causes of violence and instigators, and better positioning assets to make use of scarce resources before events.<sup>[13]</sup>

### Intelligence Preparation (IPO) for Public Order

Intelligence to support counter-netwar activity (riots and networked swarming) requires active intelligence, as well as tactical and operational synchronization. Intelligence Preparation for Operations (IPO) can be a foundation of this needed situational understanding. Building from IPB's four steps: 1) Defining the Operational Environment, 2) Describing the Operational Environment, 3) Identifying and evaluating the threats, and 4) Developing Course of Action for Adversary, other threats, and non-aggressive groups, IPO seeks to identify the threat envelope in a dynamic fashion and craft corresponding courses of action to mitigate and resolve the disorder situation.

Specifically, active intelligence for addressing distributed riots requires an understanding of the geosocial construction of actors involved. This includes knowledge of the type of disturbance (focal, dispersed, networked), as well as insight into spatial dynamics (terrain)—both physical and in cyberspace—and crowd composition (crowd or mob typology). The density and complexity of urban terrain (physical and human) complicates this understanding making intelligence support critical to mission success. Specific intelligence requirements for public order events include:

- Spatial Dynamics
- Location(s)/Terrain
- Temporal Dimensions  
(Time/Duration; Day/Night)
- Crowd Size (number of persons)
- Crowd Composition  
(range of actors, violent/non-violent)



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- Crowd Dynamics (type of crowd/mob; profiling key actors/agitators; counterdemonstrations and factions)
- Media/Social Media Influences

Tactical and operational objectives include assessing the crowd/mob, containing and isolating disruptive activity, and dispersal of violent and unlawful actors. Tactically, this demands an assessment of alternative dispersal routes, knowledge of crowd composition and dynamics (including focal/convergence points and axis of crowd movement), and a description of closed areas. Crisis mapping, red teaming (alternative analysis), CyberInt (or cyber intelligence that gains understanding of social media), and an understanding of our own organizational capacities are needed to navigate the space of emerging disorder.

### Conclusion: Avoiding Pathways to Failure

Civil disorder is fraught with complexity and misfortune. Dissecting failure also helps future operations by going beyond individual use of force to look at systemic failures. In this way, Eliot Cohen and Michael Gooch's concepts of military failure in *Military Misfortunes* can be usefully applied to the civil realm. Most studies of civil failure center around "simple failures"—individual failures to learn, adapt, or anticipate that are nevertheless survivable and in some cases are inherent to complex endeavors. Much more dangerous are aggregate failures—where a combination of two simple failures build up to something larger—or a catastrophic failure when three simple failures occur simultaneously or consecutively, leading to a complete organizational breakdown.<sup>[14]</sup>

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Cohen and Gooch's critical failure methodology can be utilized to look at the 1992 Los Angeles riots. As seen in Los Angeles, a failure to learn, anticipate, and adapt coalesced to resulted in catastrophic failure. Crucial to understanding that breakdown was the dysfunction of command and control across all levels of command for the counter-riot response (*strategic*: political, police executive; *operational*: senior command, and *tactical*: field command). "[B]reakdowns at all levels, each compounded by lapses within each critical task [lead to the] ultimate outcome of catastrophic failure."<sup>[15]</sup>

Addressing complex civil disturbances, disorder, and riots is likely to be a staple of contemporary security operations (police, constabulary/gendarmerie, and military) operations globally for the foreseeable future. Negotiating this unstable civil environment will require an understanding of the dynamics of crowds and mobs in physical and cyber space to discern between constitutionally protected speech and dissent and unlawful mobs of many types. It can be anticipated that these dynamics will occur simultaneously demanding adept and adaptive operational responses and agile intelligence support over a broad area of (distributed) operations.

This portends many complicating factors. Most dangerous is complacency. Make no mistake—what occurred in London (and Rome) may happen in the US and elsewhere. What occurred in London is less the consequence of ethnic tension but a large-scale epidemic that struck even affluent districts.<sup>[16]</sup> The difference between local failure and catastrophic failure will be government response (including civil-military interoperations) and preparation by all echelons of political and civil order.





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## Are we Nearer to a Major CBRN Terrorism Threat?

By Dr. Ely Karmon

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Upon his nomination in 1995, former U.S. Secretary of Defense William Cohen declared that Weapons of Mass Destruction (WMD) terrorism - such as chemical, biological and nuclear terrorism - would present the main strategic threat for the U.S. in the 21st century. President Bill Clinton read at the time *The Cobra Event* book about a bio-terrorism attack and was so alarmed that he ordered an intelligence analysis of the book, which affected White House policy regarding bioterrorism, and helped encourage the president to order intensified spending and preparations for a bioterror event.

Nevertheless, the Bush administration was surprised by the anthrax letter attacks in October, 2001 and declared that the greatest threat to the US was posed by "the

nexus of terrorists and weapons of mass destruction."

Fortunately, since the chemical attacks by the Japanese Aum Shinrikyo cult in 1994-1995, the anthrax attack in the United States in October 2001 and the chlorine attacks by al-Qaeda elements in Iraq in 2006-2007, there was no serious CBRN incident worldwide.

Although limited in their scope and lethal results, these attacks materialized, albeit tardy, the potential CBRN threat perceived since the early 1970s.

In a major research on the threat of CBRN terrorism just a year before 9/11, our institute, the International Institute for Counter-Terrorism (ICT), evaluated that the known terrorist organizations do not have the capability to build or



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acquire standard WMD. Even if they manage to produce and use simple, low-level non-conventional weapons, the number of victims would be limited: several dozens or hundreds, as was the case in the sarin attack by Aum Shinrikyo. This evaluation challenged other exaggerated assessments of terrorist capability with a more realistic perspective. It did not however address the case of a country's providing chemical, biological or nuclear weapons to sponsored organizations.

Present events in the Greater Middle East and Pakistan have raised the specter of a far greater and present danger.

Prior to the outbreak of fighting in Libya, the Qaddafi regime was thought to possess some 9.5 metric tons of aging mustard blister agent and a larger quantity of chemical weapons precursor materials. Libya's chemical agents were held in a concrete bunker several hundred miles to the south of Tripoli, the capital city, guarded by military troops. After the fall of the Qaddafi regime it became known that he kept secret some of his chemical weapons arsenal, in spite of his international obligations.[1]

The Organization for the Prohibition of Chemical Weapons (OPCW) inspectors visited Libya in mid-January 2012. Among the chemical munitions they found were stocks of mustard agent. Libya's new rulers told the group about the previously unknown stocks stored at the Ruwagha depot, in the south-east of the country. Libya now has until 29 April 2012 to submit a detailed plan and a date by which the destruction of the materials would be completed.[2]

However, no one is sure such agents could not be disseminated to terrorist elements, as heavy weapons, ground to air and anti-tank missiles have found their way to jihadists in the Gaza Strip and possibly to Al-Qaeda in Islamic Maghreb (AQIM) elements in the Sahara region.[3]

The same could happen with the chemical, biological and even radiological weapons and agents found in the hands of the

beleaguered Assad regime in Syria. Already in May 2011, in a CNN interview, US Defense Secretary Robert Gates warned about the possibility that Hezbollah is armed with more missiles and rockets than most states, possibly armed with chemical or biological warheads.[4]

Israeli intelligence officials worry what will happen to Syria's WMD arsenals, which include a substantial stockpile of chemical arms that includes nerve and blister agents. Less is known about the nation's biological weapon capabilities. In the event of a power vacuum in Syria, there is the possibility of weapons proliferation to Hezbollah or other regional militant groups. Damascus has already provided in the past ballistic missiles to Hezbollah.[5]

According to a recent paper by Robert S. Litwak, a terrorist group could acquire a nuclear weapon either by the transfer of a weapon from a nuclear state or an unauthorized transfer or theft of a weapon from an inadequately secured site. Litwak sustains that though after 9/11 the deliberate transfer scenario focused on Iran and North Korea, "the more likely route by which terrorists might gain access to nuclear or other WMD capabilities would be through unintended leakage of dangerous materials and technologies from inadequately secured sites," and he points to Russia and Pakistan as the main security concern. [6]

I do not completely agree with the Russia scenario, which was the main security worry in the early and middle of the 90s, after the fall of the communist regime.

However, Pakistan is seen lately by international officials and experts as the main threat in this field.

The US has implemented a \$100 million program to secure Pakistan's nuclear laboratories and weapons (for example, by separating warheads from missiles) while "US officials remain concerned about foreign-trained scientists who support radical Islamic causes infiltrating Pakistan's nuclear establishment and, more



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broadly, about the remote (but not unthinkable) possibility of an acute regime-threatening political crisis during which nuclear security is breached and a warhead falls into the hands of Islamic extremists.”[7]

There is renewed and more serious talk in United States establishment and academic circles about the need to prepare for the neutralization of the Pakistani nuclear arsenal in case of a terrorist takeover of some of these facilities, with all the tremendous political and military implications involved.

In a February 20, 2011 editorial, significantly titled “Pakistan’s Nuclear Folly”, The New York Times warned that Pakistan, which has between 95 and more than 110 deployed nuclear weapons, manufactured enough fuel for 40 to 100 additional weapons. “The ultimate nightmare is that the extremists will topple Pakistan’s government and get their hands on the nuclear weapons,” claimed NYT.

The more realistic scenario however, is the Islamist radical terrorists attack some nuclear facility and provoke a major nuclear incident or put their hands on some fissile material.

Although U.S. Joint Chiefs of Staff Chairman Adm. Michael Mullen, declared that “Pakistan appears to wield sufficient control over its nuclear arsenal to avert seizure by any extremist infiltrators in the army or intelligence sector,” on the background of the raid on Osama bin Laden’s secret compound in Abbottabad a number of top Obama administration officials - including the president himself - suspect that bin Laden relied perhaps on Pakistani assistance at midlevels of the army or intelligence service.[8]

Eight people were killed in a 2007 suicide bombing at a nuclear missile holding site south of the Pakistani capital. Suicide bombers in 2008 attacked entry points at Pakistan’s Kamra air base - a suspected nuclear weapons holding site - and a Wah Cantonment facility thought to be involved in putting nuclear weapons together. [9]

According to Gregory Shaun, director of the Pakistan Security Research Unit at the University of Bradford in the United Kingdom, two high-profile attacks by terrorists on highly secure military bases in Pakistan, the first on the General Headquarters of the Pakistan Army in Rawalpindi in October 2009 and the second on the naval aviation base at PNS Mehran near Karachi in May 2011 have renewed anxiety about the safety of Pakistan’s nuclear arsenal. Shaun noted that the 10 gunmen involved in the last strike had apparently been aware of the placement of surveillance cameras at the facility.[10] He evaluated that “the terrorists learned their tactics from the SSG (the Pakistan Army’s elite commandos, the Special Service Group), which had trained earlier generations of Pakistani/Kashmiri militants in similar tactics for operations against India.”[11]

According to nuclear security specialist David Albright an attack on a Pakistani nuclear base would necessitate inside assistance to pass through base security but also getting inside an underground bunker. A more likely scenario might be that militants or their sympathizers are able to divert nuclear material during the weapon-production process without anyone else knowing, he said.[12]

In a September 2010 research paper for IDSA, Christopher Clary argued “that the risk to Pakistan’s arsenal has been exaggerated, [but] this conclusion should not lead to complacency. The risks to Pakistan’s arsenal are still unacceptably high, even if Pakistan has done much to combat them.”[13]

Times of India reported on December 15, 2011, that India prepares itself to cope with this Pakistani threat. Crisis management teams throughout India are to receive training in handling a disaster involving chemical, biological, radiological or nuclear materials. A training facility is to be set up in Nagpur and property has also been set aside in each Indian state for



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the construction of CBRN disaster response schools. The NDMA vice president said a drill would be carried out that would permit the CBRN response teams to practice maneuvers in a particular geography. "There is very little knowledge in the public domain on dealing with radiation exposure. We also do not have a proper incidence response system in place in the event of such a disaster," he said.

In light of the revolutionary events and the growing instability in much of the Greater Middle East and South Asia and the growing threat of failing states losing control on their chemical, biological and nuclear assets, an international effort to monitor, control and foil CBRN terrorist attacks is vital for the security of the international community.

### Notes

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- [5] "Israel Warns Syria Not to Transfer Chemical Arms into Lebanon," Global Security Newswire, February 7, 2012.
- [6] Robert S. Litwak, "Global Terrorism and Nuclear Proliferation after 9/11," Analyses of the Elcano Royal Institute, Madrid, ARI 151/2011 - 21/11/2011.
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- [8] Elaine M. Grossman, "Mullen: Pakistani Nuclear Controls Should Avert Any Insider Threat," Global Security Newswire, July 8, 2011.
- [9] "Terror Strikes Hint at Pakistani Nuke Security Gaps: Expert," Global Security Newswire, June 14, 2011.
- [10] Shaun Gregory, "Terrorist Tactics in Pakistan Threaten Nuclear Weapons Safety," Sentinel, Combating Terrorism Center (CTC), June 1, 2011. See at <http://www.ctc.usma.edu/posts/terrorist-tactics-in-pakistan-threaten-nuclear-weapons-safety>.
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- [12] Grossman, Mullen: Pakistani Nuclear Controls Should Avert Any Insider Threat.
- [13] Christopher Clary, "Thinking about Pakistan's Nuclear Security in Peacetime, Crisis and War," Institute for Defence Studies and Analyses, September 2010.

Dr. Ely Karmon is a Senior Research Scholar, ICT Presented at the IDSA 14th Asian Security Conference: Non-Traditional Security Challenges - Today and Tomorrow (New –Delhi, India 13-15 February 2012)

## U.S. Far From "Understanding the Global Threat"

By Raymond Ibrahim

Source:[http://www.radicalislam.org/analysis/us-far-understanding-global-threat?utm\\_source=MadMimi](http://www.radicalislam.org/analysis/us-far-understanding-global-threat?utm_source=MadMimi)

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Reading Commander Youssef Aboul-Enein's book, *Militant Islamist Ideology: Understanding the Global Threat*, published by the Naval Institute Press (2010), one can see why U.S. leadership is far from "understanding the global threat"; why the Obama administration is supportive of the Muslim Brotherhood; and why so many U.S. politicians rose up in condemnation when one obscure pastor threatened to burn a Koran.

According to the jacket cover, Aboul-Enein is "a top adviser at the Joint Intelligence Task Force for Combating Terrorism" and "has advised at the highest levels of the defense department and intelligence community."

### What advice does he give?

He holds that, whereas "militant Islamists" (e.g., al-Qaeda) are the enemy, "non-militant Islamists,"

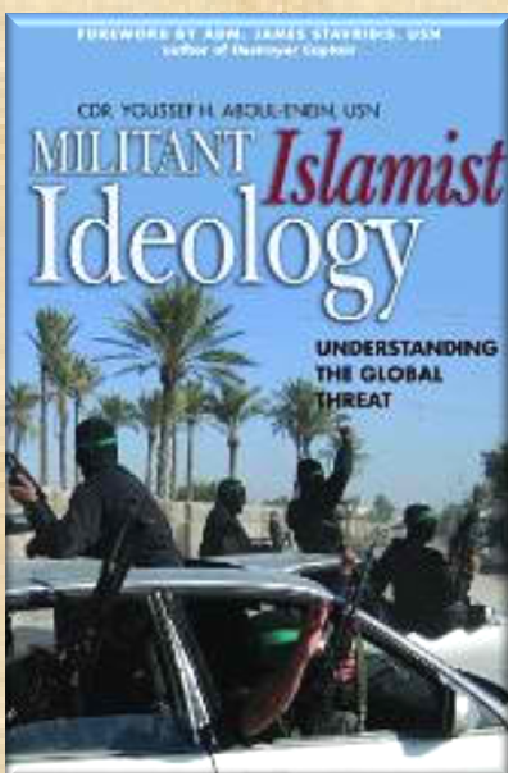


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(e.g., the Muslim Brotherhood) are not: "It is the Militant Islamists who are our adversary. They represent an immediate threat to the national security of the United States. They must not be confused with Islamists."

This theme, sometimes expressed in convoluted language—at one point we are urged to appreciate the "nuanced" differences "between Militant Islamists and between Militant Islamists and Islamists"—permeates the book.

Of course, what all Islamists want is a system inherently hostile to the West, culminating in a Sharia-enforcing Caliphate; the only difference is that the nonmilitant Islamists are prudent enough to understand that incremental



infiltration and subtle subversion are more effective than outright violence. Simply put, both groups want the same thing, and differ only in methodology.

Whereas most of the book is meant to portray nonviolent Islamists in a nonthreatening light, sometimes Aboul-Enein contradicts himself, for instance by correctly observing that "the United States must be under no illusions that the agenda of the Muslim Brotherhood includes limiting the rights of women" and other anti-Western aspects.

**How to explain these discrepancies? Is the Brotherhood a problem for the U.S. or not?**

The book's foreword by Admiral James Stavridis clarifies by stating that the book is a "culmination of Commander Aboul-Enein's essays, lectures, and myriad answers to questions." In fact, *Militant Islamist Ideology* reads like a hodgepodge of ideas cobbled together, and the author's contradictions are likely products of different approaches to different audiences over time.

His position on appeasing the Muslim world—a fixed feature of the current administration's policies—is clear. Aboul-Enein recommends that, if ever an American soldier desecrates a Koran, U.S. leadership must relieve the soldier of duty, offer "unconditional apologies," and emulate the words of Maj. Gen. Jeffrey Hammond: "I come before you [Muslims] seeking your forgiveness, in the most humble manner I look in your eyes today, and say please forgive me and my soldiers," followed by abjectly kissing a new Koran and "ceremoniously" presenting it to Muslims.

Likewise, after rightfully admonishing readers not to rely on skewed or biased accounts of Islam, he presents Islamic apologist extraordinaire Karen Armstrong—whose whitewashed writings on Islam border on fiction—as the best source on the life of Muhammad.

Then there are Aboul-Enein's flat out wrong assertions and distortions, examples of which this review closes with:

- He asserts that "militant Islamists dismiss *ijmaa* [consensus] and *qiyas* [analogical reasoning]." In fact, none other than al-Qaeda constantly invokes *ijmaa* (for instance, the consensus that jihad becomes a personal duty when infidels invade the Islamic world) and justifies suicide attacks precisely through *qiyas*.
- He insists that the Arabic word for "terrorist" is nowhere in the Koran—without bothering to point out that Koran 8:60 commands believers "to terrorize the enemy," also known as non-Muslim "infidels."
- He writes, "when Muslims are a persecuted minority Jihad becomes a *fard kifaya* (an optional obligation), in which the imam authorizes annual expeditions into Dar el Harb



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(the Abode of War), lands considered not under Muslim dominance." This is wrong on several levels: a *fard kifaya* is not an "optional obligation"—an oxymoron if ever there was one—but rather a "communal obligation"; moreover, he is describing Offensive Jihad, which is designed to subjugate non-Muslims and is obligatory to wage whenever Muslims are capable—not "when Muslims are a persecuted minority."



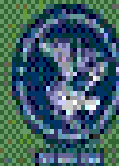
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*Raymond Ibrahim, a Middle East and Islam specialist, is a Shillman Fellow at the David Horowitz Freedom Center and an Associate Fellow at the Middle East Forum. A widely published author, he is best known for his book, *The Al Qaeda Reader*. Mr. Ibrahim's dual-background—born and raised in the U.S. by Egyptian parents —has provided him with unique advantages to understanding of the Western and Middle Eastern mindsets.*





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## Original Papers

### What Were the Real Objectives of Aum Shinrikyo?

By Anthony T. Tu

The name of Aum Shinrikyo is a familiar term for everyone in the world. Everyone knows Aum Shinrikyo was responsible for the chemical terrorism attack on the Tokyo Subway in 1995 using the deadly nerve gas, sarin. Aum Shinrikyo committed many crimes such as the murder of the lawyer, Mr. Sakamoto and his family, they also killed disciples who tried to escape from the organization, they spread sarin in Matsumoto City, kidnapped several people, and they used VX to kill one person and injure several others. Everyone wonders why Aum Shinrikyo did such crazy things. Since the behavior of Aum Shinrikyo was so absurd normal people cannot comprehend how they were able to commit such irrational acts. Recently there have been many people who have tried to understand the queer Psychological behavior of the cult members. However, once you know the real objectives of Aum Shinrikyo, then you would know why they did such odd things. In this article I will describe what the real objective and overall plans of Aum Shinrikyo were, and then one will understand why they committed such uncommon and strange criminal acts.



#### Aum Shinrikyo's Real Objective

It may not be believed by many people, but Aum Shinrikyo's real objective was to overthrow the Japanese Government and replace it with Aum Shinrikyo's Government in Japan. In my view they could have succeeded if they had not killed and kidnapped so many people. Such criminal acts eventually caught the Japanese Police's attention and this led to the eventual destruction of Aum Shinrikyo. On February 22, 1994, four months before they sprayed sarin in Matsumoto City, Asahara, the leader of Aum Shinrikyo, toured China with his senior aides, Hidemi Murai, Tomomitsu Nii, Yoshihiro Inoue, Kiyohide Hayakawa, Seiichi Endo and Tomomasa Nakagawa. They visited the royal tombs of the Ming Dynasty (1368-1644), and Asahara recalled Zhu Yuanchang who overthrew the Mongol Dynasty in 1368 and established the new Ming Dynasty. Zhu was born as a poor farmer and became the first king of the Ming Dynasty. Asahara told his disciples, "I will become the king of Japan in 1997 and by 2003 the whole world will recognize the new Aum Shinrikyo government in Japan". Asahara was born the son of a poor tatami manufacturer in Japan. So he compared himself to Zhu, the first king of the Ming Dynasty. He envisioned himself to be a king, just like Zhu.

The expansion of Aum Shinrikyo was remarkable. In 1984 Asahara started the Aum Shinsen Club with 15 members. In 1987 he founded Aum Shinrikyo, a new branch of Buddhism. In 1989 he succeeded in getting a religious license from the Tokyo Metropolitan Authority. In 1994 there were 10,000 members in Japan and 30,000 in Russia. They set up offices in New York, Frankfurt, Moscow and in Vladivostok. Asahara envisioned himself to be the future king of Japan and he gained confidence by looking at the remarkably rapid expansion of Aum Shinrikyo.



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### Plan for Aum Shinrikyo's Government

In order for Asahara to become the king or emperor of Japan, he had to overthrow the present Japanese Government.

This was the plan for Aum Shinrikyo's coup d'état. They selected November, 1997 at the time of the Parliament's (it is called Diet in Japan) opening ceremony. At this time the Emperor, Akihito, would attend the opening ceremony and give a short speech. At the opening ceremony all of the Parliament members, and the upper and lower congress members would be present. At this moment, helicopters would spray sarin from the top of the Parliament building. Aum Shinrikyo also purchased an unmanned helicopter that could carry 8kg of sarin. Both the manned and unmanned helicopters would spray sarin. At the same time a special ground force of 100 to 200 Aum Shinrikyo, armed with the Ak-47's that they manufactured would attack the parliament from the ground and they would kill everyone, including the Emperor, all the congressmen and the police that guarded the Parliament.

In order to prevent the Japanese Government from counter attacking, the cult planned to kidnap the army commander's family members and they would warn the commander that if Government forces showed up they would kill his family members. Asahara thought 200 special force soldiers was sufficient to occupy parliament and kill all the people in the upper echelon of the Government. The essence of a surprise attack was essential in this case. Japan was forbidden to have armed forces as defined by the post WWII constitution that was forced on Japan by General MacArthur.

After occupying Parliament they would attack various government buildings; they were all clustered next to each other in the small area of Kasumigaseki section. Therefore, everything Aum Shinrikyo did was for the future establishment of Aum Shinrikyo's new Government.

### Organization of Aum Shinrikyo to Government Style

The first step Asahara did was to organize Aum Shinrikyo into an organization similar to that of the Government. The present Japanese Government calls this Aum Shinrikyo's pseudo-Government. The titles Asahara set up were as follows:

| <u>Ministry</u>                    | <u>Minister</u>   |
|------------------------------------|-------------------|
| Ministry of Defense                | Tetsuya Gibe      |
| Ministry of Construction           | Kiyohide Hayakawa |
| Ministry of Education              | Toshiro Shibata   |
| Ministry of Interior               | Tomimitsu Niimi   |
| Ministry of Health                 | Ikuo Hayashi      |
| Ministry of Postal Service         |                   |
| Ministry of Food Management        | Seichi Endo       |
| Ministry of Transportation         |                   |
| Ministry of Commerce               |                   |
| Ministry of Intelligence           |                   |
| Ministry of Science and Technology | Hideo Murai       |
| Ministry of Justice                | Yoshinobi Aoyama  |
| Ministry of Finance                | Hisako Ishii      |
| Ministry of Foreign Affairs        | Fumihiko Joyu     |
| Office of Religious Members        | Hayana Ouchi      |
| Office of Royal Family             | Tomomasa Nakagawa |

These were the preparations for Asahara to govern Japan once the coup-d'état was successful.

### Chemical and Biological Weapons

In order to overthrow the Japanese Government, Asahara decided to use chemical weapons, biological weapons, and conventional weapons.



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Aum Shinrikyo's chemical weapons branch is well-known and has been described in many publications. Their Biological weapons program is not as well-known as the chemical weapons program, but there are some reports in different publications.

Biological weapons such as the botulinum toxin and anthrax were made and actually used by Aum Shinrikyo but none of them were effective. Biological weapons were made under the supervision of Seiichi Endo and the chemical weapons program was under the control of Masami Tsuchiya. Anything Tsuchiya made was successful and became highly lethal weapons. But none of the biological weapons made by Endo were effective and it was a total failure. For instance Endo selected a non-virulent anthrax strain that is similar to the one used in vaccine production. Tsuchiya's chemical weapons caused considerable damage to Japanese society, killing many people in Matsumoto and in the Tokyo subways where sarin was used and they also killed one person and injured 5 others with VX. At first Tsuchiya worked under Endo but in later days Endo worked under the supervision of Tsuchiya, especially in order to make the sarin used for the Tokyo subway attack on March 20, 1995.

### ***Conventional Weapons***

Asahara believed chemical weapons would be a major weapon in overthrowing the Japanese Government but he did not ignore the use of conventional weapons.

To overthrow the Japanese Government they also prepared conventional weapons. They chose the AK-47 automatic rifle as their weapon. They obtained the blue prints from Russia and manufactured the AK-47's at their building, the 9<sup>th</sup> Satiyan in Kamikuishiki, Japan. On January 1, 1995 Yomiuri Shinbun reported that Japanese Police had found organophosphate from the soil of Kamikuishi. This news forced Aum Shinrikyo to destroy all the sarin they had produced. At this time Aum Shinrikyo had made 10,000 Ak-47's but the production of bullets was quite behind. Asahara felt the Japanese Police invasion of their facility was imminent so they destroyed and threw away all 10,000 Ak-47's they had manufactured.

On March 22, 1995 Aum Shinrikyo struck the Tokyo subway with sarin. They felt they had to produce much chaos before the Japanese Police invaded their facility. At that time Mr. Joyu, spokesman for the cult and Mr. Hayakawa, a senior member of the cult, were in Russia negotiating the purchase of several tanks and more helicopters; as they had already purchased a helicopter before. In order to raid the Japanese Parliament, Aum Shinrikyo needed more helicopters. The absence of Joyu at the time of the Tokyo Subway attack probably saved him. Joyu was a spokesman for the cult, and he was not directly involved in the criminal activities. Hayakawa was sentenced to death although he was not in Japan at the time of the subway attack. Hayakawa could not escape the death sentence because he was involved in many other criminal activities, notably the mass production of sarin, the manufacturing of LSD, the murder of Mr. Sakamoto and his family, the attempted murder of Mr. Taguchi, and the murder of Mr. Hamaguchi with VX.

#### **1. Financing**

Aum Shinrikyo actively prepared chemical and biological weapons they also produced Ak-47's, they purchased a helicopter and planned to purchase tanks in order to carry out a coup d'état, to do this they needed a huge sum of money. For such a financial problem, they asked the members to donate all of their property to the organization. This naturally made some members try and escape from the cult. To prevent the escape of members, the Aum Shinrikyo dealt with those who tried to escape with severe punishment; such as beating, torture and killing. The collection of money and the member's property probably was Aum Shinrikyo's main financial resource.

To a lesser extent, they tried to raise money by selling Ramen, a Japanese noodle as well as start a computer business. In 1995 I inspected Aum Shinrikyo's facility in Kamikuishiki, and I saw several huge buildings. The police told me some of the buildings were used for the manufacturing of Ramen and garments on site.

#### **2. Recruitment of Foot Soldiers**

In order to raid the Japanese Parliament in November 1997, they needed many foot soldiers. For this purpose they actively recruited homeless people and trained them as soldiers. They also secretly recruited soldiers from Japan's Self-Defense Ground Force, Japan's Army. Their target was to recruit about 100 soldiers from the Japanese army.



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### Reflection of Aum's Activity

By knowing the Aum Shinrikyo's real plan then one can realize immediately why they did the things they did. Here we can review a few of their criminal activities in relation to Aum Shinrikyo's objectives and plans.

#### ***Murder the Whole Family of a Lawyer, Mr. Sakamoto***

As I mentioned above, some members got disillusioned and tried to escape from the cult organization. This would cut off the main source of income for the cult, so they tried to prevent such hemorrhagic actions by all means. Mr. Sakamoto was a lawyer who actively helped the disillusioned members and tried to get them to leave the cult organization. So Asahara ordered his disciples to kill Sakamoto and his family.



#### ***The Kidnapping and Murder of Mr. Kariya***

Mr. Kariya's sister was one of the members who decided to leave the cult organization. She simply disappeared. The Aum Shinrikyo tried to bring her back because she was rich and the cult needed her money and property. In order to find her whereabouts, the Aum Shinrikyo kidnapped Mr. Kariya, her brother. To prevent his resistance, Aum Shinrikyo's members injected him with a drug, but they injected too much and Mr. Kariya died. The body of Mr. Kariya was destroyed by a large microwave oven and reduced to a handful of ashes by Dr. Nakagawa.

#### ***Matsumoto Sarin Attack***

Mr. Tsuchiya made 20 grams of sarin by November, 1993. They wanted to test the potency of the sarin he made, so Aum Shinrikyo sprayed the leader of a rival religious group. The attempted murder failed, because the machine they used to spray the sarin was faulty. The manufacture of sarin at the laboratory continued and they made 30 kilograms by April, 1994. Two months later they released the deadly sarin in Matsumoto City on June 27, 1994 to test the potency. It caused 7 deaths and 500 people were poisoned. So this field test of the sarin they had made was successful.



#### ***Tokyo Subway Attack***

Why did Aum Shinrikyo attack the Tokyo Subway? Here I will mention the reason very briefly. After the kidnapping of Mr. Kariya, Aum Shinrikyo felt the raid by the Japanese Police was imminent. So Asahara decided to strike first to produce maximum confusion. Why did Asahara think he should produce the disturbance in Tokyo?

On January 1, 1995 Yomiuri Daily, a large newspaper in Japan mentioned the Japanese Police's discovery of organophosphate from the soil in Aum Shinrikyo's compound. This alerted Asahara and he ordered all of the sarin they had produced to be destroyed. He expected the Japanese Police would raid his facility, but the anticipated raid never came. Asahara thought the reason was that a big earthquake had occurred in Kobe in



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January 17, 1995. He thought the Japanese were too busy coping with such a calamity. So Asahara rationalized that the Japanese Police would be too busy to deal with a big disturbance in Tokyo after his sarin attack on the Tokyo subway. If this were the case, the Japanese Police would not raid Aum Shinrikyo's facilities because the attention would be shifted on the Tokyo subway mess.

But, his logic did not work this time. Actually the Japanese Police already knew that Aum Shinrikyo was behind the Tokyo subway attack, so they struck Aum Shinrikyo hard on March 22, 1995 after the attack that took place on March 20, 1995. This caused the main collapse of Aum Shinrikyo's organization.

On the surface, the Matsumoto sarin release and the Tokyo Subway sarin attack are very similar. However, the reasons for each attack were different. In the former case, they had just produced a fair amount of sarin, about 30 kg, so they were anxious to make a field test to find the effectiveness of the sarin. In the Tokyo Subway case, they wanted to preemptively strike Tokyo in order to create maximum chaos and avoid a raid by the Japanese Police.

### **My Assessment of Aum's Coup D'état**

The overthrow of the Japanese Government by Aum Shinrikyo seemed to be so ridiculous for most Japanese people and even most western people to believe. But my assessment is that it may have become a reality if Aum Shinrikyo had kept a low profile until the real uprising in November 1997.

Aum Shinrikyo was a licensed religious organization so the Japanese Police had to be polite to all religious groups. Aum Shinrikyo caught too much public attention, by kidnapping and killing. It would have only been natural for someone to want to leave the organization. Aum Shinrikyo was very harsh toward their disillusioned members, and they went so far as to kill these people. Aum Shinrikyo also tried to kill people opposed to their cult. With so much bad publicity, the Japanese public in general hated Aum Shinrikyo.

Another reason for me to think the possibility of overthrowing the Japanese Government and the establishment of Aum Shinrikyo's new Government is that it could have been successful since the Japanese Government's different organizations are all concentrated in a small area in Kasumigaseki. So it would have been easy to invade the different Government structures and control them.

### **Conclusion**

Stability is very important for any country. There are always some odd people organizing terrorist groups that could strike against the Government. Surprise is always an important factor in order to produce a maximum effect. So the general public and the Government should be on alert at all times. It is always important to watch organizations that wish to cause social disorder.

### **About the Author**

*Anthony T. Tu is Professor Emeritus Department of Biochemistry and Molecular Biology, Colorado State University and Visiting Professor at Juntendo University School of Medicine, Tokyo, Japan.*





On Nov. 9, 2009 the Japanese Emperor bestowed the Colorado State University emeritus professor with the distinction of The Order of the Rising Sun, Gold Rays with Neck Ribbon. Prof Tu, was one of 61 individuals including 10 U.S. citizens to receive the honor this fall. Past recipients have included some of the world's most prominent

academics, politicians and authors. Actor Clint Eastwood accepted the same medal earlier this year for his movies on the Battle of Iwo Jima.

#### **Biochemist published papers on chemical warfare prior to 1995 attack**

Tu, a biochemistry professor whose research focused on snake venom, published papers in Japan on chemical warfare just before the Matsumoto attack in 1994 that killed seven people and poisoned 500 others. Police asked Tu for help with the case and the ensuing nerve gas attack on the Tokyo subway in 1995 that killed 12 and injured about 3,800 more. Japanese officials used Tu's assistance to analyze the sarin and its byproducts to identify the manufacturing facility where the religious sect Aum Shinrikyo produced 70 tons of the deadly nerve gas.

#### **Chemicals produced in soil**

Tu's knowledge of chemicals produced from the degradation of sarin in soils was instrumental in linking Aum Shinrikyo definitively with the manufacture and use of sarin, evidence that helped convict the sect's leader, Shoko Asahara, who was later sentenced to be hanged.

Tu wrote a book about the experience in 2002 titled Chemical Terrorism: Horrors in Tokyo Subway and Matsumoto City.

#### **Numerous awards**

He has received numerous awards for his efforts in Japan including a medal of honor from the National Institute of Police Science and the certificate of Honorary Membership from the Japanese Society of Forensic Toxicology. He currently is the only foreign member of this organization.

**COMMENT:** I had the honor to meet Professor Tu some time ago in a conference in Singapore and later on during one of his visits in Greece. A wonderful personality and a simple man full of knowledge on CBRN agents who enjoyed and personally participated in our Easter festivities!

**NOTE:** In the coming issue of ASA Newsletter (March 2012: 11-3) read the new article of Prof A. Tu on: "**Final Death Sentences for Aum Shinrikyo's Chemical Terrorists**". Full paper will be included in the next issue of the CBRNE-Terrorism Newsletter (April 2012).

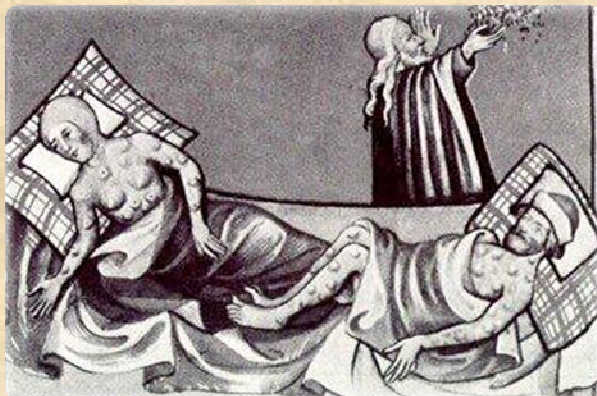


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### Plague Flea – The Original WMD

By Marc Dugas

Since ancient times, people have died from the plague, specifically *Yersinias pestis*, which travelled from person to person directly or from infected fleas, and moved quickly from ship to ship to locations around the globe. Small outbreaks of plague continue to occur throughout the



world today. Considering that jets travel in hours in what used to involve months or years of travel by ship, it is surprising that the plague has not reappeared on a grand scale. Yet isolation, treatment, and worldwide vigilance seem to have kept it at bay. What would occur if a deliberate attempt to infect the population occurred?

The World Health Organization (WHO) reported that, in a worst case scenario, if 50 kg of *Yersinias pestis* were released as an aerosol over a city of 5 million, pneumonic plague could occur in as many as 150000 persons, 36000 of whom would be expected to die. The plague bacilli would remain viable as an aerosol for 1 hour for a distance of up to 10 km. Significant numbers of city inhabitants might attempt to flee, further spreading the disease.

Examining the plague in detail reveals much about its desired weapons characteristics. In AD 541, the first recorded plague pandemic began in Egypt and swept across Europe with population losses of between 50% and 60% in North Africa, Europe, and central and southern Asia. The second plague pandemic, also known as the Black Death or Great Pestilence, began in 1346 and eventually killed 20 to 30 million people in Europe, one third of the European population. Plague spread slowly and inexorably from village to village by infected rats and humans. The pandemic lasted more than 130 years and had major political, cultural, and religious ramifications. The third pandemic began in China in 1855, spread to all inhabited continents, and ultimately killed more than 12 million people in India and China alone.

For the megalomaniac, a plague is the perfect WMD.

#### Naturally Occurring Plague

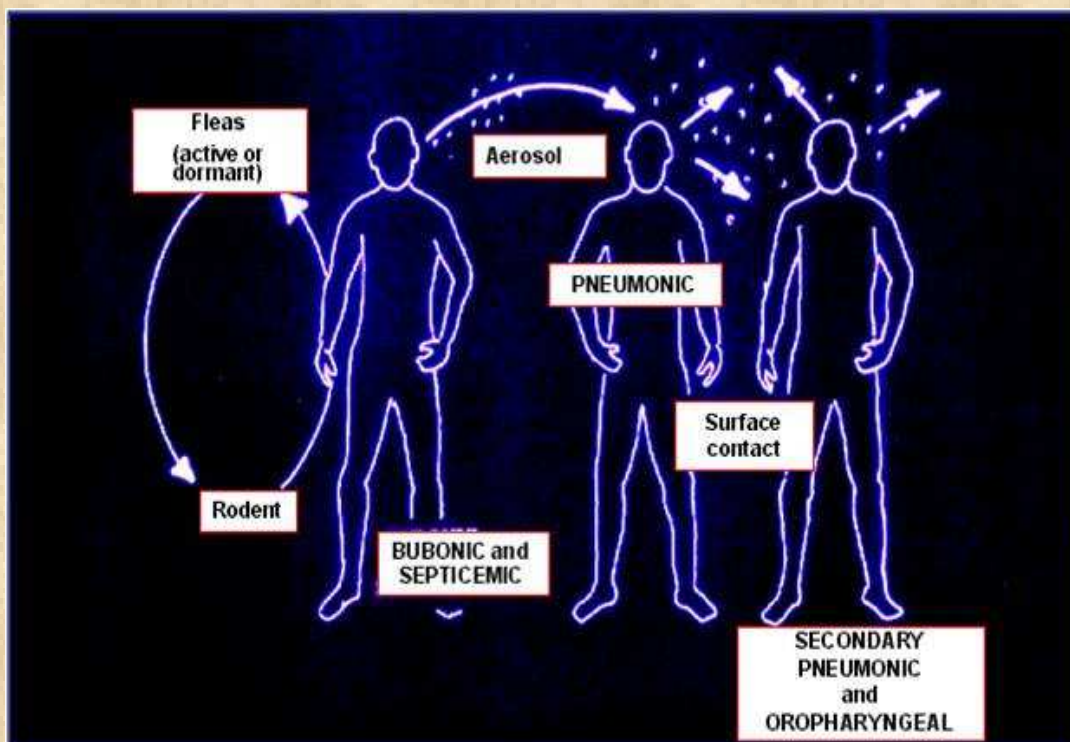
As a prelude to human epidemics, rats frequently die in cycles and in large numbers, precipitating the movement of the flea population from its natural rat reservoir to humans. Several days after ingesting infected blood, a flea's stomach becomes blocked by the plague bacteria, which form clots, preventing food from digesting. Being famished, the flea attempts to feed through multiple bites and regurgitates infected blood into its human victim, who then develops bubonic plague. Thus the infection cycle begins.

Although most persons infected by this route develop bubonic plague, a small minority will develop sepsis with no buboes, a form of plague called septicemic plague. Neither bubonic nor septicemic plague spreads directly from person to person. A small percentage of patients with bubonic or septicemic plague develop secondary pneumonic plague



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and can then spread the disease by respiratory droplets. Persons contracting the disease by this route develop pneumonic plague, the deadliest form.



### Types of Plague and Treatment

#### Pneumonic plague

- Least common (< 14% of all cases), but most severe form characterized by fulminant pneumonia
- Overall mortality: 57%
- The form most likely to be seen in a bioterrorism setting, because it can be dispersed as aerosol
- Infection control – droplet precautions, negative pressure room or transport unit, gown, gloves, N95 mask.

#### Bubonic plague

- Most common form (75-97% of all cases)
- Characterized by painful lymphadenitis (buboes)
- Contracted through the bite of an infected flea or handling infected animals
- Overall mortality: 15%
- This form is unlikely to occur in a bioterrorism setting
- Infection control – standard gown and gloves, N95 mask.

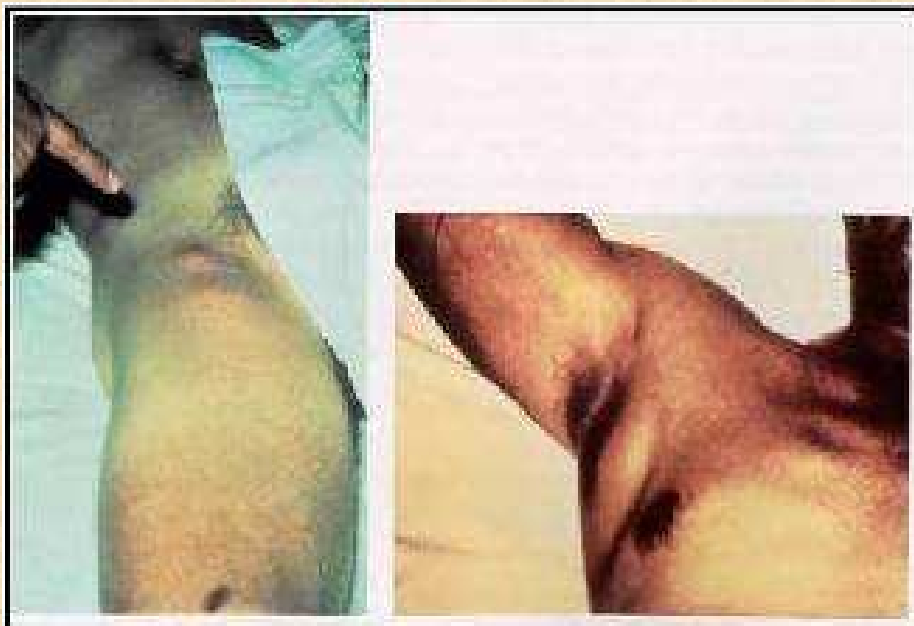
#### Septicemic plague

- Less common form (< 20% of all cases)
- Systemic infection (sepsis)
- Overall mortality: 22-50%
- Infection control – standard gown and gloves N95 mask.

Treatment - Streptomycin, tetracycline, chloramphenicol, and gentamicin are highly effective, if begun early. Plague pneumonia is almost always fatal if not treated within 24 hours of the onset of symptoms.







Buboes caused by plague

### Plague Following Occurrence of a Biological Weapon

The first indication of a clandestine terrorist attack with plague would most likely be a sudden outbreak of illness presenting as severe pneumonia and sepsis. It would likely start in an area where plague doesn't normally occur. If there are only small numbers of cases, the possibility of them being plague may be at first overlooked, given the clinical similarity to other bacterial or viral pneumonias, and that few Western physicians have ever seen a case of pneumonic plague. However, the sudden appearance of a large number of previously healthy patients with fever, cough, shortness of breath, chest pain, bloody sputum, and death should alert even the dimmest bulb to the possibility of pneumonic plague.



Sir Roderick knew it was going to be a bad day when...

### Weaponization by the Vector Effect

Deliberately spreading disease using fleas is known as the vector effect of biological warfare. While it was not uncommon during the Dark Ages for invading armies to catapult plague-infected bodies over the city walls of their enemies, later generations of bioweapons developers had more nefarious intent.

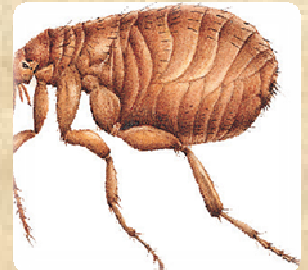


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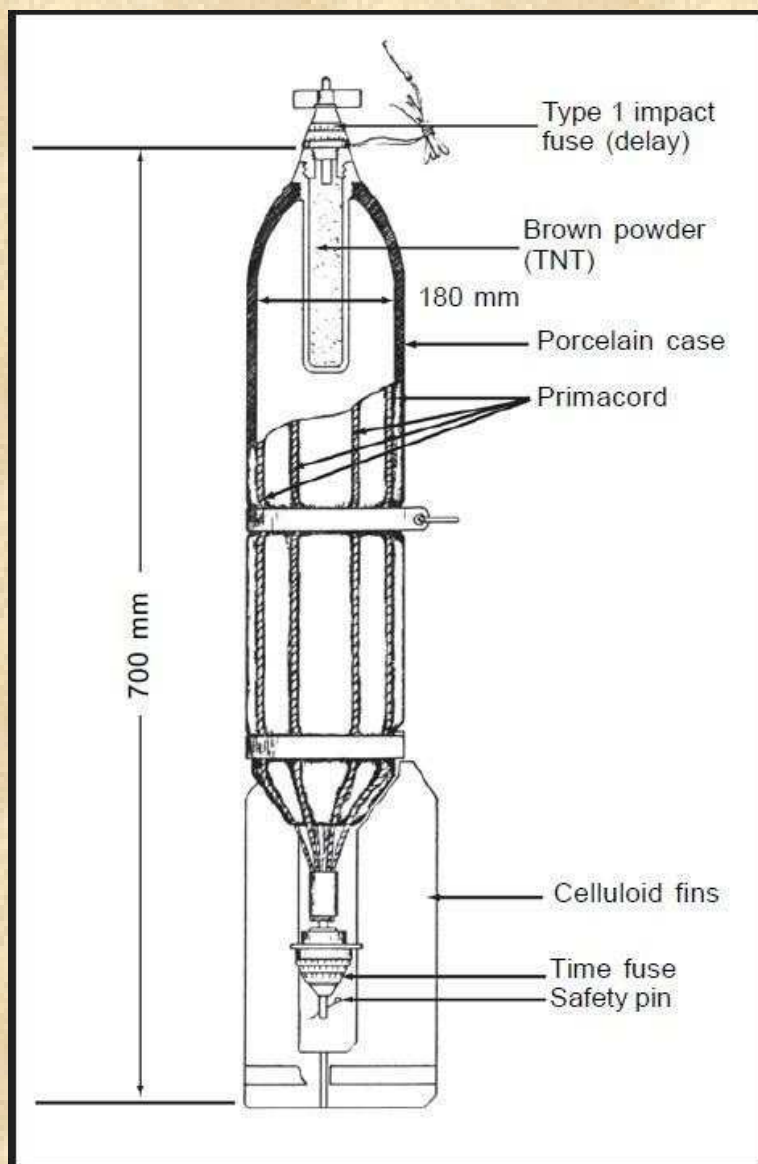
Its modern application in warfare started in the 1930s with Japan. Germany, The U.S. and the Soviet Union also conducted their own investigations in this area. During World War II, Canada pioneered the vector effect for the Allies. Of the agent-vector combinations, the plague flea has the richest military heritage and is worth studying to understand its effect in biological warfare.

### Japan and Unit 731

In World War II, a secret branch of the Japanese army known as Unit 731 was developing weapons based on anthrax and the plague. The Japanese lacked an understanding of aerosols and respiratory pathology, focusing on disseminating plague using the human flea *Pulex irritans*. They were known to have dropped plague-infected fleas over heavily populated areas of China, causing outbreaks that killed tens of thousands.



After much experimentation, the most successful plague flea weapon developed in 1938 by the Japanese was the Uji bomb. This was a frangible weapon with a porcelain casing and an inlaid strip of primer cord to activate an in-flight rupture that released the fleas from containment.



It weighed 55 pounds and had the capacity to hold 4.7 gallons, or about 30,000 plague fleas. It was intended to burst at an altitude of 660 to 980 feet above ground level, and in field trials at Anta, Manchuria, 80 percent of the fleas survived dissemination, and that coverage was best achieved under conditions with high wind. The Japanese conducted around 4,000 dispersal trials and 2,000 human trials to demonstrate the effectiveness of the weapon, until their defeat in 1945. Captured research revealed that they had plans to drop plague infected flea bombs on the U.S. coastline. Codenamed Cherry Blossoms at Night, the plan was to use kamikaze pilots to infect California with



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the plague. The end of the war also ended the experiment.

**USSR and Plague Warfare**

The Russians were no slouches when it came to biowarfare. News of the immensity of the Soviets' biological weapons program began to reach the West in 1989, when biologist Vladimir Pasechnik defected to Britain. The stories he told—of genetically altered "super plague," antibiotic-resistant anthrax, and long-range missiles designed to spread disease—were later confirmed by other defectors who had worked in the Soviet program, including Ken Alibek and Sergei Popov. The Soviet program was spread over dozens of facilities and involved tens of thousands of specialists. In the late 1980s and 1990s, many of these scientists became free agents.

**Canada's Role**

In many ways, Canada was the pioneer in biological warfare for the Allies during World War II. While Great Britain and the United States only pondered the possibility of developing a bioweapon, Canada was intent on developing one. After Great Britain and the United States formally established their biological warfare programs, the Canadians worked in areas that the other two nations tended to ignore. Developing biological weapons for the vector effect was one of those areas.

While workers at a secret germ warfare research facility in Canada's Grosse Ile laboured to produce anthrax for the Allies, G.B. Reed, a professor at the Kingston Biological Warfare Laboratory on Queen's University Campus, was seeking an entomologist to develop a different class of weaponry. The intent was to create a colony of fleas for use in combination with both plague and typhus. This concept of using a single vector to spread two different diseases simultaneously was an innovative Canadian approach.

**Conclusion**

During the ensuing years, the biological weapons programs of the United States, Canada, and the Soviet Union developed techniques to aerosolize plague directly, eliminating dependence on the unpredictable flea vector. Aerosolizing a pneumonic plague has proved the best method to disseminate a biowarfare agent. The epitaph of the plague flea, sadly, has been written.



**Disclaimer**

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## Terrorists Who Use Nerve Gas And Other Agents Could Be Tracked Down Using New Test

Source: <http://www.medicalnewstoday.com/releases/239233.php>

Scientists are reporting development of a first-of-its-kind technology that could help law enforcement officials trace the residues from terrorist attacks involving nerve gas and other chemical agents back to the companies or other sources where the perpetrators obtained ingredients for the agent. A report on the technique, which could eventually help track down perpetrators of chemical attacks, appears in ACS' journal *Analytical Chemistry*.

Carlos Fraga and colleagues explain that nerve agents, like sarin (also called GB), are some of the most toxic and fast-acting chemical warfare agents in existence. As seen in the 1994 and 1995 GB attacks in Japan, symptoms - such as a runny nose and a tightness in the chest - can appear within seconds, followed by nausea and difficulty breathing. Although traces of the agent remain after such attacks, there has been no practical way of tracing the agent

back to its source ingredients. Fraga's team sought to develop a way to do just that.

Fraga's group describes a method called "impurity profiling" that identifies impurities in a GB sample at a crime scene and matches them like a fingerprint to the impurities in the source chemicals, pinpointing the likely source. They found that up to 88 percent of the impurities in source chemicals used to make GB can wind up in the finished product, and these impurities are unique, like a fingerprint. Using standard laboratory instruments, they performed impurity profiling and correctly identified the starting materials used for two different batches of GB. "This remarkable outcome may one day become a basis for using impurity profiling to help find and prosecute perpetrators of chemical attacks," say the researchers.

## When Planning For Terrorist Chemical Weapons, Pharmacists May Be Crucial

Source: <http://www.medicalnewstoday.com/releases/239012.php>

Terrorist attacks with chemical weapons are a real possibility, according to a study that appears in the online open access *Journal of Pharmacy Practice*, published by SAGE. Thanks to their extensive knowledge of toxic agents, and how to treat those who have been exposed, pharmacists are an invaluable resource in the event of an actual or potential chemical weapons attack.

Chemical weapons act on their victims through a number of mechanisms. They include nerve agents, chemicals that cause blistering (vesicants), choking agents, incapacitating agents, riot control agents, blood agents, and toxic industrial

chemicals. With their knowledge of chemistry, microbiology, pharmacology, toxicology, and therapeutics, pharmacists are a valuable asset to health care facilities and government agencies planning for the unthinkable - a terrorist attack with chemical weapons.

In his article, clinical pharmacist and forensic pharmacologist Peter D. Anderson details the clinical effects chemical weapons, and their treatment. Nerve agents work by blocking the actions of acetyl cholinesterase (the chemistry involved is similar to how many pesticides kill). These toxins include sarin, tabun, VX,



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cyclosarin, and soman. Vesicants like sulfur mustard and lewisite produce blisters and damage the upper airways. Choking agents, which cause fluid to build up in the lungs (pulmonary edema), include phosgene and chlorine gas.

Incapacitating agents are temporary and "non-lethal," and include fentanyl and adamsite. Mace and pepper spray are familiar riot control methods. Blood agents include cyanide, which works by blocking oxidative phosphorylation in the body. Toxic industrial chemicals such as formaldehyde, hydrofluoric acid, and ammonia also merit consideration as terrorist weapons.

"Potential chemical weapons are in no way limited to the traditional agents that we think of as chemical weapons," Anderson explains.

The good news is that there are potential antidotes to these chemical agents, which can save lives if they are used quickly and correctly. Pharmacists need to work in their hospitals to prepare emergency plans, and with the pharmacy and therapeutic committees to stock for a potential chemical accident or terrorist attack. In the US, for example, The Centers for Disease Control and Prevention (CDC) maintains a Strategic National Stockpile of pharmaceuticals, medical equipment and

supplies that can be sent in an emergency to any US state within 12 hours.

The threat from chemical agents may appear to be a symptom of our modern society, but the idea has been around since antiquity. Solon of Athens is said to have used hellebore roots (a purgative) to contaminate the water supply in the Pleistrus River during the Siege of Cirrha as long ago as 590 BC. Modern chemical warfare during World War I included the release by German soldiers of 150 tons of chlorine gas near Ypres, Belgium, and phosgene and nitrogen mustard also played a role in the conflict. Choking agents, vesicants, blood agents, and nerve gas joined the range of chemical weapons available by World War II. Even though conflicting nations produced these in large quantities, no major chemical weapon events occurred during World War II.

The Chemical Weapons Convention was finalized in 1993, prohibiting development, production, stockpiling, and use of chemical weapons. The treaty also mandated weapons destruction. 130 countries signed the convention (excluding Iraq and North Korea).

Although the article is about chemical weapons, Anderson emphasizes that pharmacists can also be a resource for biological, radiological and nuclear attacks as well as natural disasters.

## INSIDE A COMPANY: HCE – HAZARD CONTROL – Engineering GmbH

Location: Lüneburger Heide, Germany

### Development & Delivery of Customer Specified Hardware



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Based on the long time experience with chemical warfare agents and the related problems, Hazard control offers since 2007 the delivery of customer specified hardware. Starting with the delivery of chemical detectors for the chemical warfare agent destruction plant at the



Kanda site, Japan, Hazard control offers now a wide range of products. Basically and initially focused on the delivery of detection and analytical equipment, HCE was founded as the specialized company for engineering, development, production and delivery of hardware. Meanwhile HCE is involved in various projects, including analytical support for chemical destruction facilities and safety support for munitions treatment facilities.



### Fields of activities:

- Development for complete solution from identification up to the destruction of chemical warfare materials
- Customer specified development for complex solutions, including analytical applications, test work in our own facilities and practical demonstrations
- Selection of the best available hardware to solve the customers problem, including necessary hardware/software modifications
- Testing of the equipment with chemical warfare agents, performance demonstrations, etc.
- Testing and calibration of detectors and analytical equipment with live chemical warfare agents
- Preparation of specific documentations and handling instructions

### Reference Activities (Selection)

- Development, construction and delivery of an emergency response system to secure the transport of chemical munitions in China
- Modification of ion mobility spectrometers for the use at the Kanda CWA destruction plant
- Delivery of chemical detectors for the Japanese CW destruction program to:
  - Government of Japan, Abandoned Chemical Weapons Office
  - Ministry of Environment
  - Kobe Steel Ltd.
  - Mitsubishi General Research
  - Japan Geographical Survey
  - Kawasaki Heavy Industries
  - JFE
- Delivery of the analytical hardware for a chemical weapons destruction plant in China to Kawasaki Heavy Industries
- Engineering work for the CWA detection and air cleaning system in the Governmental munitions destruction plant Hünxe, Germany



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### Analytical Services, Engineering & Hardware Support



HCG was established on the first of August 1995. The aims being to unite under one roof the outstanding specialist abilities of individuals and thereby create an industrial establishment that had never before existed. HCG in cooperation with its partners has his own laboratories for handling of chemical warfare agents especially in relation to analyze various types of samples, develop analytical methods. Testing and modification of detection and sensor systems is one of the main special working fields. During the last years, Hazard Control has expanded the activities to modification and delivery of customer specified hardware and specialists training.

#### Fields of activities:

- Detection and analysis of CWA
- Testing and Calibration of sensor systems and analytical equipment
- Testing of decontamination methods and decontamination equipment
- Customer specified development of analytical procedures, incl. Training with live CWA
- Small scale tests with CWA and material testing
- Advisory activities for transport, handling and destruction of CWM
- Consulting and engineering activities for evaluation of methods and equipment
- Customer specified method and hardware development
- Delivery of customer specified hardware for detection, decontamination, transport and destruction of CWM
- Training of first responders and CW specialists
- Onsite chemical support by own onsite labs during CWM handling activities
- Synthesis and delivery of standard compounds

#### Reference Activities (Selection)

- Sampling and Analysis of CWA in various materials from former production, storage and destruction facilities in Germany and France
- Customers specified test work for selection of activated charcoals for the Japanese CW destruction process
- Testing and calibration of CWA detection systems with live CWA
- Training and analytical support for the German Analytical Task Forces of the governmental firefighting brigades and the state police
- Training of Japanese specialists for the CWM destruction program Japan in cooperation with GEKA Munster
- Training of EOD specialists for handling of CWM in cooperation with GEKA Munster
- Modification and delivery of commercially available CWA detectors
- Delivery of CW monitoring equipment for the Japanese CW destruction project
- Method development, training and hardware delivery of analytical equipment for the Japanese CW destruction program in China
- Evaluation studies and hardware testing for low level detection of CWA



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- Consulting work for CW destruction projects in Germany, Japan, Belgium, France, Russia and Iraq

### Analytical Work & Analysis of Chemical Warfare Agents



HCG holds a governmental license for working with live chemical warfare agents. Based on the experience in handling and analysis of chemical warfare agents and identification of chemical warfare materials, HCG offers a complete analytical service.

#### Fields of activities:

- Detection and analysis of all types of CWA - Instrument calibration with live agents and certified
- standards of chemical warfare agents
- Use of various GC/MS, HPLC and ion mobility spectrometers systems, including high-resolution
- MS/MS systems for the identification of unknown compounds by isotopic pattern analysis
- Customer specified development of analytical methods and customer specified development of libraries for MS and ion mobility spectrometry
- Customer specified development of analytical procedures, incl. training with live CWA
- Analytical support for small scale tests with CWA and material testing
- Analytical support for transport, handling and destruction of CWM
- Analytical support for workplace monitoring and low level detection
- Analytical support for customer specified hardware development
- Analytical support for training of first responders and CW specialists
- Onsite chemical support by own onsite labs during CWM handling activities

#### Reference Activities (Selection)

- Sampling and Analysis of CWA in various materials from former production, storage and destruction facilities in Germany and France
- Analytical work for following projects:
- Examination of the former CWA production plants (selection) at:
  - Halle-Ammendorf (S-Mustard, N-Mustard)
  - Staßfurt (Arsenicals)
  - Gendorf (S-Mustard)
  - Munster/Raubkammer (GB, S-Mustard, Arsenicals)
- Examination of the former CWA storage and destruction sites (selection) at:
  - Kapen/Dessau, Traunreut, Löcknitz, Urlau
  - Hamburg, Unterlüß, Munster/Dethlingen
  - Minden/Lübbecke
- Analytical examination of the former CWA production at Angouleme & Avignon (France)





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- Analytical Support for the German Civil Defense Agency and the governmental German analytical task forces (ATF)
- Analytical support for the German CWA destruction facility GEKA Munster
- Analytical support for the Japanese CW destruction program

### Demilitarization & Analytical CWM Destruction Support



Within the last 16 years, Hazard Control has supported various projects for destruction and dismantling of chemical warfare materials and former chemical warfare agent production plants.

#### Fields of activities:

- Consulting and training activities for CWA destruction projects
- Customer specified development of analytical methods and customer specified development of libraries for MS and ion mobility spectrometry
- Soft- and hardware modification for analytical monitoring equipment
- Onsite analysis of air pollutants to minimize the risk of false positive and negative alerts of the facility
- air monitoring systems
- Review of analytical systems and monitoring systems
- Consulting and hardware support for workplace safety measures and air cleaning systems
- Development of customer specified analytical methods, training of the analytical specialists and
- transfer of the analytical methods into the onsite laboratories
- Laboratory scale development and testing of CWA destruction processes by use of live agents
- Testing and qualification for detection, decontamination and personal protection equipment
- Development of customer specified training tools and procedures
- Literature and data research activities

#### Reference Activities (Selection)

- Consulting work for the French SECOIA project
- Consulting and advisory activities for domestic CW destruction projects Japan:
- Review of workplace safety and air monitoring for the Samukawa project
- Laboratory scale testing of S-Mustard and Lewisite destruction processes
- Development of analytical methods for the onsite laboratory of the Kanda CW destruction plant
- Review of the air monitoring system of the Kanda CW destruction plant
- Consulting and advisory activities for the Japanese CW destruction program in China:
- Testing of various hardware for analyzing CWA
- Modification of ion mobility spectrometers for the detection of low volatile compounds and creation



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- of customer specified libraries
- Modification and adaptation of air monitoring systems for use in Herbling
- Consulting work for the project of the European Union “Establishing of an Environmental Monitoring
- System for the Former VX Production Plant at Novocheboksarsk”
- Analytical support for the German CWA destruction facility GEKA Munster

### Analytical Task Forces and Governmental Support



Hazard Control is a member of the group of experts of the German Civil Defense Agency. HCG supports governmental activities, related to chemical warfare agents or chemical warfare material. HCG gives the CWA related analytical expertise to the governmental task forces for CWM recovery and detection activities.

#### Fields of activities:

- Advisory and training activities for qualified first responders
- Consulting activities for antiterrorist preparations of the German authorities, providing information's about chemical warfare material from our extensive achieves
- Onsite consulting and technical real-time support during CWM reconnaissance and recovery operations
- Re-programming of chemical detectors and fast supply of analytical information's
- Onsite sampling and analysis by use of own mobile onsite laboratories, including mobile mass spectrometers
- Analytical Support and workplace monitoring to secure the recovery and cleaning operations
- Analytical confirmation after cleaning the onsite locations
- Consulting services for workplace safety, workers health protection, decontamination and transport of dangerous goods and waste treatment
- Cooperation with the German state police and the German governmental CWM treatment facility
- GEKA Munster



#### Reference Activities (Selection)

- Support for the recovery of chemical warfare material from WW II at Lübeck, Germany
  - Analytical support and examination of chemical warfare agent recovered from waste treatment activities
  - Recovery and analytical examination of buried chemical warfare agents and chemical training sets
- of the Russian army in eastern Germany
- Analytical support to the German state police for the identification of illegal chemical compounds



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- Cooperation with the German analytical task forces during onsite identification of chemical warfare agents in accidental situations

### Customer Specified Support and Material Testing



Based on the permission to work with live chemical warfare agents, Hazard Control offers the customer specified testing of selected hardware. We are specialized in development, hardware implementation and realization of customer's projects.

#### Fields of activities:

- Customer specified development specific test procedures, production of the required hardware and implementation of the test procedures
- Generation of CWA gas phase concentration from ppt to ppm levels at various temperatures and humidity's
- Generation of high level CWA concentrations up to grams/m<sup>3</sup> at higher temperatures
- Sensitivity tests for analytical equipment, including calibration of various sensor systems
- Development of specific sampling and analyzing procedures
- Indoor and outdoor testing
- Testing of decontamination equipment, including efficiency tests
- Testing of personal protection equipment
- Testing of the penetration behavior of various materials against chemical warfare agents
- Analytical Support and workplace monitoring to secure the test work
- Decontamination and waste treatment
- Medical support during the test work with live agents

#### Reference Activities (Selection)

- Testing of commercially available CWA detection systems (Germany Civil Defense Agency)
- Testing of commercially available activated charcoals for the use in air cleaning filter systems of CW destruction plants, development of the test equipment and test work (CW Destruction program Japan)
- Testing of commercially available detectors for the trace detection of CWA and air monitoring (CW Destruction program Japan)
- Testing of decontamination equipment (CW Destruction program Japan)
- Testing, calibration and verification of the implemented libraries for ion mobility spectrometers (Bruker Daltonik, Germany)
- Testing of the efficiency of decontamination foam for removal of CWA from personal protection equipment (Schmitz Feuerwehrtechnik, Germany)
- Testing of the behavior of sealing materials against blister agents for CW munitions transport containers (Dynasafe, Sweden)



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- Testing of the efficiency of a CW munitions destruction plant (GEKA Munster, German Government)
- Creation of infrared spectra libraries (Bruker Daltonik, Germany)

### Advisory Activities and Training of Specialists



Hazard Control offers training with live agents and chemical munitions. During the last years, specialists were trained for different activities, from analytical work up to handling of chemical munitions for recovery and destruction activities. To offer a complex training, Hazard Control cooperates with the German government and private training facilities.

#### Fields of activities:

- Teaching about chemical warfare agents, chemistry, toxicology, detection & analysis, decontamination and destruction
- Practical training for detection and analysis, handling of chemical warfare agents and munitions, destruction of chemical warfare material
- Instruction and training for the use of personal protection equipment
- Medical examination for the handling of chemical warfare agents and chemical munitions
- Handling of live chemical warfare agents during the training activities
- Analytical Support and workplace monitoring to secure the recovery and cleaning operations
- Cooperation with the German governmental CWM treatment facility GEKA Munster for handling of live chemical warfare material and instruction about destruction processes
- Use of GEKA facilities for practical exercises
- Preparation of customer specified training documents and training certificates

#### Reference Activities (Selection)

- Training of Chinese and Japanese Specialists in handling of emergency response systems for the transport of chemical munitions
- Training of the analytical task forces of the German government in handling and identification of chemical warfare material
- Training of Japanese specialists, teaching for chemical warfare agents, training in detection and analysis of chemical warfare agents, practical training at the GEKA facilities in cooperation with GEKA
- Teaching of first responders in cooperation with the Fire Department Academy of Hamburg
- Teaching and practical training in CWM safety during recovery operations for EOD specialists in cooperation with the EOD school Dresden
- Teaching and onsite training of analytical specialists of the facility laboratory of the former VX production plant at Novocheboksarsk



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- Training of the analytical specialists for the onsite laboratories of the Japanese CWM destruction facility at the Kanda site
- Training of analytical specialists in use of handheld ion mobility spectrometers for CWM recovery operation in Japan



### Contact information

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Hazard Control operates an own test and training center on a 53.000 m2 testing ground. This allows to combine all activities under one roof and to guarantee the best available support also for larger and complicate projects.

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### Tokyo subway attack fugitive surrenders

Source: <http://www.couriermail.com.au/news/world/tokyo-subway-attack-fugitive-surrenders/story-e6fre-oox-1226234294557>



A FORMER member of Japan's Aum Supreme Truth doomsday cult, which was responsible for the 1995 nerve-gas attack on the Tokyo subway, has been arrested after almost 17 years on the run, police said.

Makoto Hirata, 46, turned himself into a police station in central Tokyo just 10 minutes before midnight on New Year's Eve, according to media reports.

He was held on suspicion of taking part in a plot to kidnap and confine a brother of an Aum follower who had escaped from the cult in February 1995, a month before the attack, a Tokyo Metropolitan Police Department spokesman said.

The victim, who was 68, died from tracheal obstruction a day later when he was given an injection at Aum's main commune at the foot of Mount Fuji, the official said.



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"Hirata was arrested on suspicion of abduction and confinement resulting in death," he said. The crime



is punishable by at least two years in prison.

"I want to give myself a sense of closure after so many years passed," Hirata told investigators, according to the reports.

"I only drove a car," he added about his role in the plot which was, according to police, led by Aum guru Shoko Asahara.

He was one of three Aum members who went into hiding after the sarin attack in March 1995, which killed 13 people and injured thousands.

Naoko Kikuchi, 40, and Katsuya Takahashi, 53, are still at large.

Hirata, known to be skilled in shooting, is also suspected of being involved in a sniper attack in 1995 on the then national police chief who survived it, the reports said.

Hirata joined the cult in 1984 after graduating from university and was mainly tasked with guarding Asahara, a near-blind yoga master who attracted some 10,000 followers at the height of his popularity.

Asahara preached a blend of Buddhist and Hindu dogma mixed with apocalyptic visions, and developed an obsession with sarin gas, becoming paranoid that his enemies would attack him with it.

The cult wanted to disrupt police's move to crack down on it and throw the capital area into confusion to enact the guru's image of an apocalyptic war, according to prosecutors.



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Sixteen people were arrested for the attack, with 13 of them, including Asahara, sentenced to death. The country's Supreme Court in late November rejected a final appeal against the death sentences.



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### Aum cult fugitive was turned away from Tokyo police station

Source: <http://www.guardian.co.uk/world/2012/jan/04/aum-tokyo-makoto-hirata-sarin?INTCMP=SRCH>

A simple change of heart during the few minutes' walk from one Tokyo police station to another could have kept Makoto Hirata, one of Japan's most wanted men (center of photo), at large indefinitely.

It has emerged that Hirata, a former member of the Aum Supreme Truth doomsday cult, was sent away by the officer on duty when he first tried to turn himself in, late on New Year's Eve.

"He apparently hasn't had any plastic surgery," a police source told the Yomiuri Shimbun daily. Only sketchy details have emerged of Hirata's life as a fugitive since his arrest, in the early hours of Sunday. According to the Yomiuri he claimed shame had led him to turn himself in after he witnessed the misery caused by the 11 March earthquake and tsunami.

"The senseless scenes from Tohoku after the earthquake made me question by own situation," he was quoted as telling Taro Takimoto, a lawyer who helped people leave the cult, and who agreed to meet the suspect in custody. "I decided I would turn myself in before the year was up."

How Hirata managed to evade detection for so long remains a mystery. Dressed in jeans and a quilted jacket, he was carrying a rucksack containing underwear, clothes, shampoo and other items. "He was as neat as a pin," one officer was quoted as saying.

He reportedly refused to explain the 100,000 yen (£834) in cash found in his possession, although he is

understood to have received 10m yen from the cult shortly after the attacks.

Hirata is suspected of conspiring to kidnap and confine Kiyoshi Kariya, a notary official who died after cult members injected him with an anaesthetic to get him to talk about his sister, who had escaped from the group. Hirata is not thought to have taken part in the gas attacks that destroyed Japan's faith in its public safety on the morning of 20 March 1995.

Aum's former leader, Shoko Asahara, and 12 other senior cult members have been given the death penalty, although these sentences have not been carried out. A further two cult members – Katsuya Takahashi and Naoko Kikuchi – remain at large.

Police also suspect Hirata was involved in the 1995 attempted murder of Takaji Kunimatsu, the then chief of the national police agency. He denies any involvement in the shooting, and reportedly decided to avoid arrest in connection with that crime by



**The policeman thought it was a prank.** But the supposed prankster was a former member of a fanatical group whose members carried out a fatal sarin gas attack on the Tokyo underground in 1995, killing 12 people and making 6,000 others sick. The terrorist attack remains the worst on Japanese soil.

Hirata, wanted in connection with the kidnapping and death earlier that year of a civil servant whose sister was trying to leave the cult, tried again but failed to convince the officer that the face that had been staring down from 150,000 wanted posters for almost 17 years was his.

**According to media reports, the 46-year-old suspect was arrested only after he walked, at the officer's urging, to a smaller police station several hundred metres away.**

Hirata's hair was longer than in photographs taken in the mid-1990s but his facial features and physique had barely changed during the years in hiding.





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turning himself in after the statute of limitations expired in 2010.

Police suspect Hirata's decision was influenced by the death last July of his mother, to whom he was very close.

In the few reported comments he has made to investigators, Hirata appears to be trying to distance himself from the cult, which has

renamed itself Aleph and claims to eschew violence but remains under police surveillance. He reportedly told Takimoto, who was injured in a separate sarin attack in 1994, that he no longer believed in the teachings of Asahara, adding that the former guru deserved to be hanged.

### How to Create a Safe Room

Source: <http://www.survival-center.com/saferoom.html>

A safe room is intended to offer protection from a chemical or biological incident by minimizing the amount of the agent that enters the room, thereby reducing or eliminating its effect on the occupants. They are especially useful when infants or small children are present in the

years. Captain Dave has reviewed data from multiple military and industrial sources, including the Israeli Defense Force, and is please to recommended the following guidelines to preparing your own safe room:

#### Picking the Safe Room Location

Pick a room on an upper floor (not the basement) with few windows. The fewer external walls, the better. A room with an adjoining bathroom is always nice. We often recommend the master bedroom since it usually includes full bathroom facilities, a TV, a phone and is comfortable. Basement rooms should not be chosen because some poison gasses have a tendency to collect in low places. The room should have a minimum of one-square yard of floor space per person, but for optimal comfort, at least twice this much space is recommended.

#### Preparing the Room Ahead of Time

Ideally, you are reading this well ahead of a biological or chemical emergency and have time to plan and prepare your room. Preparations include both steps you can take to make the room airtight and supplies you may want to store in the safe room.

Buy enough of the following to cover all the windows and other entrances in your safe room area:

- Weather stripping (get enough for the door, too.)
- Clear plastic film, at least 1 mm thick, wide enough to cover your windows



home, since it is difficult or expensive to obtain personal protection systems designed for kids. A safe room also provides protection for pets as well as giving its occupants mobility, a place to sleep, and allows reading and watching TV more easily than a gas mask and chemical safety suit. When equipped with a robust HEPA filter, it may also offer protection for longer periods of time than a gas mask filter, which generally has a 3.5-hour life span in a toxic environment.

People in Israel and those who live near chemical manufacturing or processing plants have created safe rooms in their homes for



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- Scissors or something else to cut the plastic to fit
- Duct tape
- Caulk and a caulk gun
- A portable HEPA air filtration system. (You can create safe room without the HEPA filter device, but this will significantly increase your level of protection.)
- Extra batteries for each
- A deck of cards, a few books and games or activities to keep you busy.
- Any basic toiletries or medicines you may need.
- A fan, as it may become warm in a confined space, and you must shut off the air conditioning to prevent it from bring outside air into the safe room.

Before the event, install the weather stripping material on all windows, ensuring that they seal tightly in a manner that eliminates the transfer of air from outside to the inside of your home. (This is a good investment because it will better insulate your house and lower your heating and cooling bills.) Also install weather stripping on the door(s) to the safe room, even if it only leads to another room. You can also add weather stripping on your external doors elsewhere in the house -- it won't hurt and will probably help.

If you have an older house or older windows, caulk the windows to prevent any drafts or leakage. Also caulk any other locations where air might penetrate your house, such as holes where cable and phone wires enter the room.

Set up the HEPA filter and plug it in. (HEPA stands for High Efficiency Particle Arresting and removes 99.97 percent of all particles 0.3 microns or larger and is recommended in the Wall Street Journal as a way to remove Anthrax bacteria and other harmful substance from the air. If you buy a unit such as the Austin Air filter that Captain Dave recommends, it will also remove volatile organic compounds and chemicals from the air.) You will benefit from the advantages of an air purifier whether or not there is a chemical or biological emergency.

Store the following items in a box or two in the safe room:

- Bottled water, juice, sports drinks or other beverages
- Food that can be stored for a long time yet requires little or no preparation, such as peanut butter and crackers, peanuts or mixed nuts, energy bars, candy bars, pretzels, pudding packs individual servings of applesauce, etc.
- A portable radio with fresh batteries
- A flashlight with fresh batteries

Once you have everything in place and installed, you can rest a bit easier until such time you feel a chemical or biological emergency is imminent. If you have established your bedroom as the safe room, you will have a high degree of safety with the HEPA filter on and the doors and windows sealed, even if there is an attack while you are asleep.

### How do you know when to go to your safe room?

While there may be a broadcast alert, either through an all-news TV or radio station, or some official notification of an attack or emergency -- such as sirens -- your senses are also important. Use your five senses as well as your common sense to determine when you should retreat to a safe room.

Some dangerous chemicals will cause you to experience a burning or itching in the eyes, nose and throat. Others, such as chlorine or ammonia, will have a distinctive smell. Also be aware of explosions or other sounds that could represent some type of munitions. All are cues to retreat to the safe room. Visual cues for a biological attack might include a low-flying crop duster in parts where there are no crops or a truck with a large plume of white spray fanning out behind it.

### Decontamination

If you are exposed during an attack -- outside the house, in your car or otherwise feel you may have been contaminated -- your best bet is to immediately return home and park outside your house. Remove all your clothing and personal items and put everything in a plastic garbage bag, sealing it shut for later decontamination. Then retreat from your car to your garage, leaving the car outside so it does not contaminate your house. Many garages have a



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hose and drain on the floor. If yours does, take advantage of this to hose yourself off with water. Wash thoroughly two or three times with antibacterial soap and let the suds stay on you for at least one minute prior to rinsing. Wash your hair very well, too. If you do not have a hose in the garage, hose yourself off outside. (If you are terribly shy, leave on your underwear.)

Then use clean towels to dry off prior to entering the house. Rub yourself vigorously and then leave the towels in the garage. Enter your house as the day you were born, with nothing on, including shoes and jewelry. Do not bring your purse, wallet, gun or other items unless they have been thoroughly decontaminated with Lysol, bleach or another disinfectant. Once you are inside, retreat to the safe room and again shower in the bathroom, using a strong soap.

### In Event of an Attack

If you expect an imminent attack or believe there is a danger from biological or chemical attack, you should:

1. Immediately close all windows and doors
2. Turn off all heating or air conditioning
3. Put on your gas mask
4. Gather all residents of the home, including pets, and retreat to the safe room
5. Turn on the HEPA filter
6. If you have not already done so, cover the windows in your safe room with plastic (preferably clear so that you can see out and light can get in), taping the plastic all around with duct tape or another strong tape. (Some systems made to insulate windows allow you to heat the plastic with a hair dry to cause it to tighten up and look better. Captain Dave has not tested this system and notes that the important issue is integrity of the seal, not appearances.)
7. Apply additional tape over the cracks around windows and the door to prevent any air transfer.

Take a bath towel, moisten it, fold or roll it and place it against the crack under the door.

8. Also cover with plastic, taped securely in place all air conditioning/heater vents (don't forget the bathroom fan) and any other hole, void, crack or crevice where outside air might enter the room.
9. Fill the tub and sink bowl with water, putting the stopper in place.
10. Take a deep breath -- you are now as safe from biological or chemical attack as you can be without spending thousands of dollars.

### How do you know when it is safe to leave the room?

Your best bet is to wait for some kind of official notification, such as an all-clear siren or broadcast.

With chemicals, the danger usually dissipates in a number of hours. Weather conditions play a role in how quickly the chemicals are diluted to a residual level that is no longer dangerous. Wind, for example, will cause the chemicals to blow away. Usually, you can leave the safe room after a number of hours from the incident, assuming there are not continued attacks or leaks (in the case of an industrial emergency).

With a biological threat, the danger can last much longer. Anthrax and other bacteria and viruses may break down after exposure to sunlight, but weaponized anthrax is a bit of a question mark. Plus, there may be residual amounts remaining at ground level which could be stirred up when you walk through it. If you are certain that Anthrax or another biological hazard has been spread in your neighborhood, we suggest that you stay in your safe room as long as you can comfortably do so without running out of oxygen, water or food. Even then, utilize caution when leaving the house and consider getting a test or possible antibiotic treatment.

**WARNING:** You must always keep in mind the amount of oxygen in the room. If the room is completely sealed, you will be consuming oxygen and exhaling carbon dioxide. Dying from a lack of oxygen is not a positive



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outcome, especially when the chemical or biological threat may not have actually materialized or the danger may have passed. If you notice your breath becoming shallow or rapid, or you experience any other symptoms that may reflect oxygen deprivation, you should immediately don your gas mask and open a door to another part of the house to let in some fresh air. This is where a HEPA filter can have a great benefit. It not only removes 99.97 percent of all harmful particles greater than 0.3 microns, some models create a "clean air pocket" near the exit area of the filter.

Please note that no form of protection can be considered complete when dealing with chemical and biological agents, in part because real-world experience is severely limited or out of date. Your best protection is avoidance. The safe room process and other procedures described above represent what we believe to be the best alternative than the general population can achieve other than leaving the target area prior to an incident. However, this is only one method of protection, and it is not warranted or guaranteed by Captain Dave. You must assume responsibility for your own safety and well being.

### Final Note and Disclaimer

## NEW Software Release — CoBRA 4.4

Source: <http://www.defensegroupinc.com/cobra/Includes/products/Cobra4.cfm>

### CoBRA 4.4

provides critical response. The tools, that are embedded coordination of responder including response and other almost any desktop, XP Tablet PC



### [New Update Available for ERG 2008](#)

resources and capabilities needed during any emergency databases, checklists, and incident reporting capabilities in the CoBRA system facilitate and speed up the response to WMD or other large-scale incidents by any fire, hazmat, law enforcement, emergency medical, bomb public safety personnel. CoBRA software operates on laptop or tablet PC running Microsoft Windows® XP (SP2), Edition, Windows® Vista and Windows® 7.

### New 4.4 Features Include:

- Updated Databases include the latest CBRNE data and provide instant searching and filtering as you type
- PPE database expanded to include Trelleborg data
- Updated SOPS, Checklists, and Guides including a completely linked Emergency Response to Terrorism Job Aid and expanded medical response protocols
- US Coast Guard CHRIS database added in searchable format
- Nuclear Bomb / Improvised Nuclear Device Effects Tool
- Customizable Database for your local Response data ready for loading
- Unit Converter Tool for converting between units of area, force, energy, length, pressure, absorbed radiation, radiation activity, radiation exposure, time, velocity, volume, weight, and temperature
- GPS Integration provides current location, speed, heading, and more, as well as adding a location stamp to all incident report entries
- Integrated real-time weather display
- Updated radiological exposure tool provides time and exposure limits for general public, first responders, and military operations in a hot zone, including calculation of dose from activity, adjustments for distance, user-adjustable dose limits, and much more



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- Upgraded Master Search tool allows for partial searches across all databases
- Enhanced NFPA 704 tool provides search interface to chemical databases
- MSDS database now supports facility information, enabling users to look up MSDS by storage location within facility
- Common Alerting Protocol (CAP) standards implementation
- Integration with DHS FEMA OPEN system for standards-compliant communication across emergency management systems
- Improved Software Development Kit for enhanced 3rd party integration support
- Integration with CoBRA Server for central incident logging, reporting, and query
- Support for CoBRA add-ons including GIS / Plume Plotting, HICS, Exercise Aide, Forensics Toolset, and Crisis Negotiator Toolset.
- Expanded glossaries from WMD and radiological terms

### Tools and Searchable Databases

Provide response, safety, first aid, and protection information on chemical, biological, radiological and explosives threats.

### SOPs and Checklists

Address areas including WMD and other hazardous threat response, evidence collection and investigative procedures. Developed in consultation with a number of recognized international authorities in the field, these documents can be modified and adapted to suit a specific organization or department.

### Guides

Provide informational planning and response resources from a variety of accredited government, military and commercial sources. Examples include the NIOSH Pocket Guide and the Jane's Chem-Bio Handbook.

### Electronic Form Tool

Provide the ability to complete standard format reports, such as ICS forms that are pre-loaded in CoBRA, quickly with electronic submission to headquarters.

### Incident Reporting

Records all user actions, including miscellaneous entries, in a current status log with a time and date stamp. CoBRA conveniently wraps this log with any attached images, forms and other accessed information into a CoBRA incident report that can be sent wirelessly or messengered to disseminate critical information in all directions during an incident.

### Administrator Tool

Free CoBRA Administrator Tool allows each department to input its own plans, checklists, maps, MSDS, and other local data.

## Hezbollah suspect leads Thai police to chemical stash

Source:[http://www.foreignpolicy.com/articles/2012/01/17/the\\_lwot\\_hezbollah\\_suspect\\_leads\\_thai\\_police\\_to\\_chemical\\_stash](http://www.foreignpolicy.com/articles/2012/01/17/the_lwot_hezbollah_suspect_leads_thai_police_to_chemical_stash)



The Rack: Cullen Murphy, Todd S. Purham, David Rose, Philippe Sands, "Guantánamo: An Oral History" (Vanity Fair).

Thai police on January 12 arrested a suspected member of the Lebanese Hezbollah, Atris Hussein, and later charged him with illegal weapons possession after receiving a tip from Israeli intelligence sources that Hezbollah operatives were plotting to attack various tourist attractions in the Thai capital of Bangkok



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(NYT, CNN, Reuters, AP, AFP). After his arrest Hussein led police on January 16 to a warehouse he had been renting for a year, where he had stockpiled a large amount of ammonium nitrate and urea, both of which can be used to make explosives, though a police spokesman later said the alleged plot involved the chemicals being shipped out of Thailand for use in another country (BBC).

Radical cleric Abu Qatada on January 17 won his fight against deportation from the United Kingdom to Jordan, where he has been accused of involvement in two major terrorist plots, because he risks being tortured and having evidence obtained through his torture used against him in court (BBC, AP, Tel) Abu

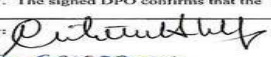
Qatada fled to the U.K. in 1993 after purportedly being tortured by Jordanian security forces, and claims that the accusations against him were derived from evidence obtained by torturing his co-defendants.

Four people, including a British citizen who has been detained in Kenya for a year for being in the country illegally, Jermaine Grant, and Kenyans Fouad Ababaker Manswab, Warda Breik Islam and Frank Ngala were charged on January 12 with possessing bomb-making equipment and plotting to detonate an improvised explosive in Kenya in December (Reuters, BBC, Guardian). Police said they are also questioning Grant about possible links to the Somali militant group al-Shabaab.

### OPCW: Info about Libya's CWAs

Source: <http://www.opcw.org>

**NOTE:** It is significant to note that OPCW in Libya used Cristanini's **BX-24** all purpose decon solution.

| ORGANISATION FOR THE PROHIBITION OF CHEMICAL WEAPONS   |                                 |   |                                    |                                   |             |
|--|---------------------------------|---|------------------------------------|-----------------------------------|-------------|
| <b>DIRECT PURCHASE ORDER (DPO)</b>   |                                 |   |                                    |                                   |             |
| No. <b>OPB-D11-090</b>   |                                 |   |                                    |                                   |             |
| Please state this number on all invoices and related correspondence for identification   |                                 |   |                                    |                                   |             |
| Supplier: <b>CRISTANINI S.P.A.</b><br>Via Porron 15<br>37010 Rivoli<br>ITALY   |                                 | Date: <b>3 Nov 2011</b>   | Your Reference: <b>OPB-D11-090</b> |                                   |             |
| Attn: <b>39 045 6269400</b>  |                                 | Our Reference: <b>As per Para 4 of the OPCW</b>   |                                    | Terms of Payment: <b>GT&amp;C</b> |             |
| Tel: <b>39 045 6269411</b>   |                                 | Delivery Date: <b>23 Nov 2011</b>   |                                    |                                   |             |
| The following goods and/or services are ordered on the conditions stated in this PO and in the OPCW General Terms and Conditions (GT&C) for the Purchase of Goods or Services which are attached and form an integral part of this PO. |                                 |   |                                    |                                   |             |
| Item No.   | Description of Goods            | Unit  | Quantity                           | Unit Price                        | Line Amount |
| 1  | BX 24 Decontaminant/Detoxifcant | EA  |                                    |                                   |             |
| 2  | Packing cost                    | EA  | 1                                  |                                   |             |
| 3  | Shipping cost                   | EA  | 1                                  |                                   |             |
| As per Proforma # 449 dated 28/10/2011   |                                 | Excluding VAT   |                                    | Total EUR                         |             |
| <b>Additional Terms &amp; Conditions:</b>  |                                 |   |                                    |                                   |             |
| Terms of Delivery: Cost, Insurance & Freight (Incoterms 2010)  |                                 |   |                                    |                                   |             |
| Ship to: OPCW, OPCW Equipment, Heulweg 28-30, 2288 GN, Rijswijk, NETHERLANDS   |                                 |   |                                    |                                   |             |
| Attn:  |                                 |   |                                    |                                   |             |
| Invoice to: OPCW, Finance & Accounts, Johan de Wittlaan 32, 2517 JR, The Hague.  |                                 |   |                                    |                                   |             |
| <b>Note 1:</b> Only one original invoice per order to be clearly marked with the PO number will be accepted for the amount stated in this PO. Partial invoices will only be honoured by the OPCW if agreed upon in writing.            |                                 |   |                                    |                                   |             |
| <b>Note 2:</b> The Supplier is requested to sign the DPO and return it immediately to the OPCW. The signed DPO confirms that the order and our GT&C were duly received and accepted.   |                                 |   |                                    |                                   |             |
| Signature:   |                                 | Signature Supplier:  |                                    |                                   |             |
| Name: <b>Acting Head, OPB</b>  |                                 | Name: <b>ADOLFO CRISTANINI</b>  |                                    |                                   |             |
| Title:   |                                 | Title: <b>PRESIDENT</b>   |                                    |                                   |             |
| Date: <b>3 November 2011</b>   |                                 | Date: <b>7.11.2011</b>  |                                    |                                   |             |

### Libya: Fact and Figures

As a State Party to the Chemical Weapons Convention, Libya is obligated to declare all chemical weapons and associated production facilities that it possesses to the OPCW. Upon joining the Convention in January 2004 Libya declared possession of the following materials, which were verified by OPCW inspections:

- 24.7 metric tonnes (MT) of sulfur mustard
- 1,390 MT of precursor chemicals
- 3,583 unloaded chemical weapons munitions (aerial bombs)
- 3 chemical weapons production facilities.

Since declaring this stockpile, Libya has destroyed under OPCW verification:

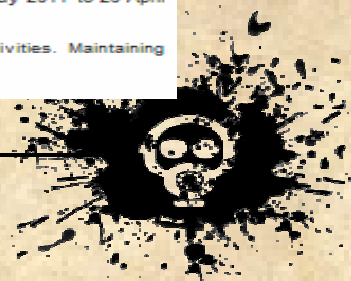
- 55% of its sulfur mustard stockpile
- 40% of its precursor chemicals, and
- 100% of its unloaded CW munitions.

Libya has also irreversibly destroyed two of its former production facilities and, with prior approval of the OPCW, converted the third facility to purposes not prohibited by the Convention (pharmaceuticals manufacturing).

All destruction and conversion activities have been verified by OPCW inspections.

Libya's deadline for completing destruction of its remaining CWs has been extended by the OPCW from 15 May 2011 to 29 April 2012.

Under the Convention, the OPCW's mandate is to inspect and verify chemical weapons destruction activities. Maintaining security of stockpiles until they are destroyed is the responsibility of the Libyan government.





# EUROBAND

**MUSKI™**

## Emergency Escape Mask

First-aid safety mask for use in emergency situations when potentially harmful elements/particles or suspicions thereof, exist in the atmosphere.

"Bag" shape design, fits easily over the head, and closes tightly around the neck.

One size fits all face shapes, covers beards and/or spectacles.

Protects from toxic and lethal effects of biological/chemical terrorism.

Compact - fits into a pocket or purse for easy accessibility.

Designed to protect the face and eyes.

External air enters only via the mask filters.

Precision one-way exhalation valve allows easy exhaling.

Enables safer escape from contaminated areas.

Enables escape through smoke.

Safe removal and discarding after use.

**Warning:**  
MUSKI™ is not intended  
as a substitute for  
conventional gas masks!!!

**Safe**



**Easy**



**Compact**



**Handy**



Pat. Pend

**BE PREPARED**

**www.muski.com**



**MUSKI™**

**FERRARA  
BAND**

## Characteristics of Muski™ parts:

The transparent plastic material of the mask has been tested and proven effective against penetration of Mustard Gas for up to six hours.

Filters have been tested as described hereunder.

The mask filter contains 4 layers, as described below:

1. The frontal filter layer, made from viscose strengthened by polyester fibers 150 gr/sq. m. It contains 0.3% Cetylpyridinium Chloride (CPC) as an antiseptic that neutralizes bacteria that may enter through the filter. This layer acts as a pre-filter against large particles.
2. A layer to filter particles of 0.3 microns or more, tested for air permeability by the Fraizer Air Permeability Method, - 55cfm/sf at 0.5" water gage.
3. Layer made of Polyester non-woven material, thickness: 1.2 mm, containing active charcoal in a concentration of 114 gr. out of a total of 200 gr. Sq/m. - 57% intended to reject air pollution and gas flow, both in dynamic or static conditions. Active charcoal is described as follows in professional literature: "activated charcoal are used as purifying and decolorizing agents, for the removal of residual gases in low pressure apparatus, and in respirators as a protection against toxic gases." Tests were conducted on this layer conforming to Standard SAE J 726 Coarse Grade Test Dust, with the following results: With airflow of 10 cub. ft. per minute for 15 minutes containing 16.0 gr. of dust, out of which 14.6 gr. (91.25%) were absorbed by the charcoal layer.
4. A layer similar to the first layer.

The Microbial Institute of the University of Ferrara in Italy tested MUSKI™ filter layers. 12 different microorganisms were tested showing effective results of filtering properties between 94.5% - 100%.

### Warning!

Properties not mentioned as tested & proven above,  
should not be attributed to MUSKI™.

- The efficiency of MUSKI™ in an emergency, is dependent on its fit and seal at the neck, as well as the quantity and type of contamination in the air. The efficiency of MUSKI™ against all types of contaminants cannot be pre-determined. It is therefore important to leave the danger area as quickly as possible.
- The mask is intended as an emergency first aid precaution only. It is not intended to replace the conventional ABC gas mask.
- The use of MUSKI™ by unqualified persons (i.e. unsupervised children, the very aged, or the infirm or sick etc.), or persons suffering from respiratory illnesses or illnesses connected to the respiratory system, is dangerous and strictly forbidden.
- MUSKI™ and its components are not fireproof. Beware of open flames or exposure to extreme heat. Heat/fire may melt or burn parts of the mask.
- For your safety, read the user's manual carefully prior to use.

[www.muski.com](http://www.muski.com)  
e-mail: [info@muski.com](mailto:info@muski.com)



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### Level A/B Suits for First Responders

Source: Hazmat Responder World (Autumn 2011) pp.52-53

A very useful comparison study from Hazmat Responder World journal available on-line.

|   | 1   | 2   | 3   | 4   | 5   | 6                  | 7                |
|---|---|---|---|---|---|--------------------|------------------|
|   | VPS   | EVO   | NEO   | Trellichem Super  | VPS Flash   | Z5H580             | Z3H42792         |
| <b>Level (NFPA)</b>   | 1991 - 2005<br>Liquified gas option   | 1991 - 2005<br>Chemical flash fire,<br>liquified gas option                       | 1991 - 2005<br>Liquified gas option                           | Non NFPA, level A,<br>level B   | 1991 - 2005<br>Chemical flash fire,<br>liquified gas option                       | Not supplied       | 1992 - 2005      |
| <b>Type of material -<br/>external (E)<br/>internal (I)</b> | E: Chloroprene<br>rubber, multi-layer<br>barrier film<br>I: Nylon woven<br>fabric | E: Viton/butyl<br>rubber, multi-layer<br>barrier film<br>I: Nomex woven<br>fabric | E: Chlorinated<br>polymer<br>I: Multi-layer<br>barrier film   | E: Viton/butyl<br>rubber, butyl<br>rubber<br>I: Nylon woven<br>fabric | E: Chloroprene<br>rubber, multi-layer<br>barrier film<br>I: Nomex woven<br>fabric | Zytron 500         | Zytron 300       |
| <b>Number of pieces</b>                                     | 1   | 1   | 1   | 1   | 1   | 1                  | 1                |
| <b>Number of sizes</b>                                      | 7   | 7   | 7   | 7   | 7   | 9                  | 9                |
| <b>Bonded / Stitched</b>                                    | Stitched & taped  | Stitched & taped  | HF Welded   | Stitched & taped  | Stitched & taped  | Heat sealed, taped | Heat, taped seam |
| <b>Length of zip (ins)</b>                                  | 53.1  | 53.1  | 53.1  | 53.1  | 53.1  | Not supplied       | Not supplied     |
| <b>Gloves:</b>  | Bayonet   | Bayonet   | Bayonet   | Bayonet   | Bayonet   | Not supplied       | Not supplied     |
| <b>Boots:</b>   | Integral sock   | Integral sock   | Integral sock   | Integral sock   | Integral sock   | Fitted boot        | Integral sock    |
| <b>Lens finish</b>  | Tear off lens,<br>Anti fog lens   | Tear off lens,<br>Anti fog lens   | Tear off lens,<br>Anti fog lens                               | Tear off lens,<br>Anti fog lens                                       | Tear off lens,<br>Anti fog lens   | Teflon overlay     | Not supplied     |
| <b>Temperature<br/>resistant</b>                            | NFPA 1991,<br>65 deg C  | NFPA 1991,<br>65 deg C  | NFPA 1991,<br>65 deg C  | 65 deg C  | NFPA 1991, Flash fire<br>65 deg C   | Not supplied       | Not supplied     |
| <b>Colour</b>   | Yellow  | Red   | Blue  | Yellow  | Orange  | Orange, Charcoal   | Tan              |
| <b>Weight</b>   | 5.5 kg  | 6 kg  | 5 kg  | 6 kg  | 5.5 kg  | 9 lbs              | 1.5 lbs          |
| <b>Shelf life</b>   | 7 years   | 10 years  | 5 years   | 10 years  | 7 years   | >100 years         | >100 years       |
| <b>Standards met</b>  | NFPA 1991,<br>EN943-2/ET,<br>EN943-1,<br>EN1073-2,<br>EN14126                     | NFPA 1991,<br>EN943-2/ET, ATEX,<br>EN1073-2,<br>EN14126                           | NFPA 1991,<br>EN943-2/ET,<br>EN943-1,<br>EN1073-2,<br>EN14126 | EN943-2/ET,<br>EN943-1,<br>EN1073-2,<br>EN14126                       | NFPA 1991,  | Not supplied       | Not supplied     |
| <b>Countries sold</b>                                       | Worldwide   | Worldwide   | Worldwide   | Worldwide,<br>except US   | Worldwide,<br>except Europe   | Not supplied       | Not supplied     |

1 Trelleborg

2 Trelleborg

3 Trelleborg

4 Trelleborg

5 Trelleborg

6 Kappler

7 Kappler



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| 8   | 9   | 10  | 11  | 12  | 13   | 14  | 15  |
|---|---|---|---|---|--|---|---|
| Z5HTNC2   | F5H58091  | ONESuit Flash   | ONESuit Gard  | ONESuit Pro   | ONESuit Shield   | CPS 5900  | CPS 7900  |
| 1994 - 2007, Class 2  | 1991  | Non NFPA, level A (OSHA)  | Non NFPA, level A (OSHA)  | Non NFPA, level A (OSHA)  | Non NFPA, level B (OSHA)   | 1994 - 2007, Class 2  | NFPA 1991:2005 class1 (pending)   |
| Zytron 500  | Frontline   | E: Challenge NXTF   | E: Challenge NXT  | E: Coretech Uniguard  | E: Coretech Uniguard LBV1  | Zytron 500  | Dräger D-Mex, 5 Layer Sandwich Material   |
| 1   | 1   | 1   | 1   | 1   | 1  | 1   | 1   |
| 8   | 9   | 6   | 6   | 6   | 6  | 5   | 5   |
| Heat sealed, taped seam   | Heat sealed, taped seam   | Welded seams  | Welded seams  | Welded seams  | Stitched   | Stitched & Bonded   | Stitched & Bonded   |
| Not supplied  | Not supplied  | 48 ins  | 48 ins  | 48 ins  | 36 ins   | 150 cm  | 150 cm  |
| Not supplied  | Not supplied  | Clamped   | Clamped   | Clamped   | Clamped  | Fitted  | Separate  |
| Fitted boot   | Fitted boot   | Integral sock   | Integral sock   | Integral sock   | Integral sock  | Integral sock   | Integral sock / Fitted boot   |
| Teflon overlay  | Teflon overlay  | Clear or tinted   | Clear or tinted   | Not supplied  | N/A  | FEP Overlay   | Anti-scratch & anti-fog   |
| Not supplied  | Not supplied  | Flash, 800 deg C heat   | Flash, 425 deg C heat   | Flash, 100 deg C heat   | Flash, 150 deg C heat  | +93 deg C   | 70 deg C  |
| Orange, Charcoal  | Orange, Charcoal  | Red   | Green   | Orange  | Blue   | Orange  | Orange, Blue, Olive Green, Beige  |
| 9 lbs   | 12 lbs  | 5.4 kg  | 4 kg  | 4.3 kg  | 3.5 kg   | 3 kg  | 5.5 kg (w socks) / 6.9 kg (w boots)   |
| >100 years  | >100 years  | >15 years   | >15 years   | >10 years   | 10 years   | 10 years  | 15 years  |
| Not supplied  | Not supplied  | NFPA 1991   | NFPA 1991   | NFPA 1991, 1994 (class 2) EN943-1/2   | NFPA 1992, 1994 (class 2)  | 1994 - 2007, Class 2, EN943-1:2002, EN943-2:2002, Solas II-2, Reg 19  | NFPA 1991:2005 class1 (pend), EN 943-1:2002, EN 943-2:2002, Finalist 0.7.C EN 1073-01 & 02, EN 14126, SOLAS II-2, Reg. 19, BS5467                               |
| Not supplied  | Not supplied  | Worldwide, except Europe  | Worldwide, except Europe  | Worldwide   | Worldwide, except Europe   | Australia, Austria, Brasil, CN, CZ, DEN, FIN, FRA, DEU, UK, Italy, JPN, Mexico, NL, Norway, Poland, CH, SGP, Slovakia, Slovenia, ESP, RSA, Ukraine, USA, Venezuela, UAE | Australia, Austria, Bulgaria, Croatia, CZ, DEN, FRA, DEU, UK, HUN, Italy, JPN, NL, Norway, POL, RUS, SWE, CH, SERB, SGP, Slovakia, Slovenia, ESP, RSA, TUR, UAE |
| <b>8 Kappler</b>  | <b>9 Kappler</b>  | <b>10 Saint Gobain</b>  | <b>11 Saint Gobain</b>  | <b>12 Saint Gobain</b>  | <b>13 Saint Gobain</b>   | <b>14 Dräger</b>  | <b>15 Dräger</b>  |
|  |  |  |  |  |  |    |    |

**NOTE:** You can download the Autumn-2011 issue of this journal from the following URL:  
<http://www.hazmatresponderworld.com/pdf/hazmat-responder-world-magazine-autumn-2011.pdf>



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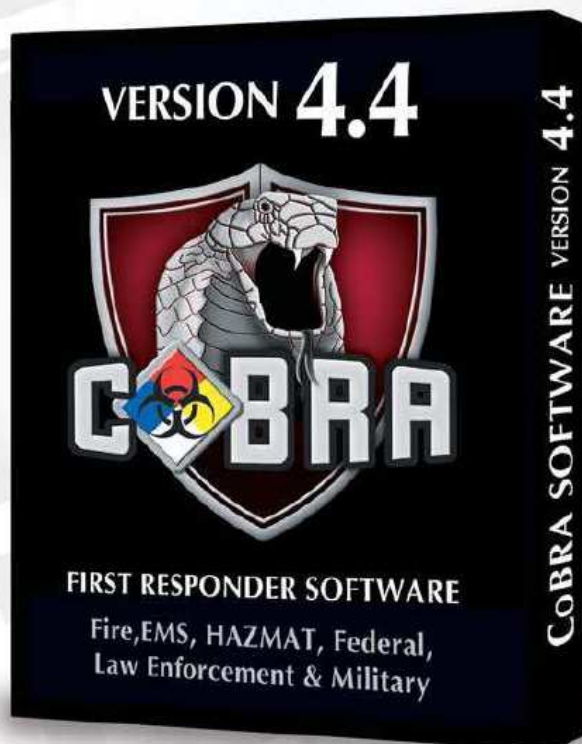


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### New portable chemical detector for military, first responders

Source: [http://www.smithsdetection.com/1025\\_6183.php](http://www.smithsdetection.com/1025_6183.php)

Smiths Detection is showing a next-generation chemical threat detector that combines speedy high-resolution gas chromatography (GC) and a miniaturized toroidal ion trap mass spectrometer (MS) in a portable device.

The [GUARDION](#), targeted at enhancing military and emergency response capabilities in the field, can confirm the presence and identity of chemical warfare agents and toxic industrial chemicals in gases, vapors, liquids, and solids.

Smiths Detection partnered with Torion Technologies (American Fork, Utah) to miniaturize and ruggedize the GC/MS technology and specialized software that go into GUARDION. The says that a newly established GC/MS Center of Excellence at Smiths Detection's Danbury, Connecticut, facility includes a team of engineers, researchers, manufacturing, and product managers who contributed to the GUARDION and advancement of GC/MS portable technology.

The company says that the [GUARDION](#) is almost a quarter lighter than comparable

systems and with the size of a small carry-on



suitcase. It has a start-up time of five minutes and can analyze up to thirty samples on a single battery charge.

#### Feature highlights

- Utilizes GC/MS technology to identify volatile and semi-volatile organic compounds including CWAs and TICs
- Start up and ready to operate in 5 minutes or less
- Analysis in 3 minutes or less allows for up to 30 sample runs on a single battery charge

#### Additional highlights

- Lightweight, compact and ruggedized for field operation
- Universal, broad-based sample collection and injection technique accommodates gas, liquid, and solid sampling
- conjunction with the NIST/EPA/NIH mass spectral library.

#### Specifications

|                   |  |
|-------------------|--|
| Technology        | Gas Chromatography Mass Spectrometry   |
| Size              | 39 x 38 x 22 cm (15.5 x 15 x 9 in) excluding handle  |
| Weight            | 14.6kg (32 lbs.) including battery   |
|                   | Helium carrier gas supply, internal disposable cartridge or external cylinder  |
| Gas Chromatograph | MXT-5 column, 5-m, 0.1mm i.d., 0.4 $\mu$ m df<br>Temperature programming up to 300°C, ramp rate 120°C/min<br>Split/splitless injection |



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|                                    |   |
|------------------------------------|---|
| Mass Spectrometer                  | Toroidal ion trap   |
| Vacuum System                      | Turbomolecular vacuum pump with diaphragm roughing pump   |
| Sample Collection                  | Solid-Phase Microextraction (SPME) exposure to environment, head space, Tedlar® bag, liquid, or solution  |
| Environmental Features             | System is sealed for operation in hot zone  |
| Decontamination via                | Spray/wipe down   |
| Operating Ranges                   | Operational in extreme weather and temperatures ranging from 32°F to 113°F (0°C to 45°C).<br>Humidity 0 to 95% RH   |
| User Interface Application for Use | The embedded GUARDION software is a streamlined for rapid identification of substances in complex mixtures.<br>This easy-to-use software is designed for use by non-experts and is optimized for operation in full PPE. Network enabled. Windows® CE operating system, PEAC® chemical hazards database. |
| Controller                         | Touch-screen embedded system<br>Finger, stylus, or keypad navigation  |
| Power                              | Removable, rechargeable Li-ion battery (2-3 hours run time)<br>External power supply<br>24-V vehicle power adaptor  |
| External Data Storage              | Full USB support<br>Flash devices   |
| Input/Output Devices               | Mouse and keyboard compatible<br>Ethernet capable   |

### Available Options

|                     |  |
|---------------------|--|
| Software            | CHROMION™ advanced GC/MS software for PC               |
| Libraries           | NIST/EPA/NIH Mass Spectral Library                     |
| Wireless Capability | Bluetooth™ communications between GUARDION unit and PC |
| Colors              | Multiple colors available                              |

## New scanner allows liquids back into aircraft cabin baggage

Source: <http://www.stfc.ac.uk/News+and+Events/38295.aspx>

Cobalt Light Systems has received European approval for its revolutionary INSIGHT100 bottle scanner, which enables aircraft passengers to carry liquid items larger than 100ml once more. Airports could now allow passengers to take items such as water, cosmetics, perfumes and duty free through airport security channels from as early as 2013. The current ban on items over 100ml in hand baggage can only be lifted when airports are able to effectively screen quickly and without opening the containers. INSIGHT100 screens

individual bottles in less than 5 seconds to determine whether there is a security threat.

The INSIGHT100 scanner exceeded the European Civil Aviation Conference (ECAC) standard for use at airports with an almost perfect detection capability and negligible false alarm rate in unopened containers, ensuring maximum safety for the travelling public with the minimum delays. What makes INSIGHT100 special is the capability of identifying explosives



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unambiguously inside opaque bottles such as coloured plastic shampoo containers, or green glass wine bottles. Other systems do not precisely identify the threat reliably and may lead to large numbers of false alarms or to missing genuine threats. The system is currently in trials at several major European airports.

The INSIGHT100 system uses a proprietary technology called Spatially Offset Raman Spectroscopy (SORS), which was pioneered at the Science & Technology Facilities Council's (STFC) Central Laser Facility at its Rutherford Appleton Laboratory in Oxfordshire, and led to the creation of Cobalt Light Systems as a spin

Explosives and Weapons Detection (2010) initiative, a cross-government programme sponsored by a number of government departments and agencies under the CONTEST strategy.

Prof. Pavel Matousek, at STFC's Rutherford Appleton Laboratory, and inventor of the SORS technique said: "Since STFC made the breakthrough in discovering SORS a few years ago, we have worked closely with the team at Cobalt Light Systems to develop and refine this technology. It is particularly exciting to see how this particular scientific development could now go on to make a real difference to the safety and wellbeing of our society."



out of STFC.

Dr Paul Loeffen, Chief Executive Officer of Cobalt Light Systems, said: "We have worked incredibly hard over the last couple of years to refine the SORS technology and bring the INSIGHT100 to market. It is a great achievement to have exceeded the European standards at this stage so that we are in a prime position to supply this unique bottle screener to European airports". The development of the INSIGHT100 was funded under the Innovative Research Call in

The restriction on liquids was introduced following a failed al-Qaeda bomb plot in August 2006 to bring down several airliners departing London for North America – the terrorists aimed to use liquid explosives carried onto aircraft in bottles. Recently, the European Commission agreed to relax the limit on liquids by introducing new screening measures from April 2013. In just over a year from now, passengers will again be allowed to carry on that expensive bottle of champagne as a gift for friends, provided the bottle is screened.

## Unsecured Libyan Weapons: Regional Impact and Possible Threats

Source: [www.cimicweb.org](http://www.cimicweb.org)



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### Chemical Weapons

The proliferation of chemical weapons is also an area of concern for the international community. According to the *Telegraph*, British Prime Minister David Cameron stated in mid-November 2011 that it was “worth noting” that Gaddafi had proceeded with a programme of WMD development despite his earlier promises to dismantle the programme. Libya is a State Party to the Chemical Weapons Convention, which obligates the country to declare all of its chemical weapons and associated production facilities to the Organisation for the Prohibition of Chemical Weapons (OPCW). When Libya joined the Convention in January 2004, it declared possession of the following materials and production facilities: 24.7 metric tonnes (MT) of sulphuric mustard gas, 1,390 MT of precursor chemicals, 3,563 unloaded chemical weapons munitions (aerial bombs) and three chemical weapons production facilities. All of these weapons and facilities were verified by OPCW inspections. Under OPCW verification between 2004 and February 2011, Libya destroyed 55% of its sulphur mustard stockpile; 40% of its precursor chemicals; and 100% of its unloaded chemical weapons munitions. Libya also “irreversibly destroyed two of its former production facilities”.

On 01 November 2011, the NTC revealed to the international community the

presence of two previously unknown stockpiles of mustard gas, reports *Magharebia*. Moammar Gaddafi had only disclosed one site to the United Nations but had concealed the existence of two other sites. Youssef Safi ad-Din, a Libyan specialist responsible for managing Libya’s leftover chemical warfare materials, reported that the secret sites were now “securitised” and posed no risk. Immediately after this revelation, OPCW deployed an inspection team to Libya to evaluate the status of chemical weapons being stored and to “determine whether any diversion of sulfur mustard agent and precursor chemicals that have been stored at the site occurred during the recent crisis.” The visit was the first to Libya by OPCW since February 2011 and was conducted at the invitation of the new Libyan government. The OPCW inspectors “confirmed that the full stockpile of undestroyed sulfur mustard and precursors remains in place” and took “further measures to ensure the integrity of the stockpiles until destruction operations can resume under OPCW verification”.

### Worries Grow Over Syria Chemical Weapons Arsenal

Source: [http://themedialine.org/news/news\\_detail.asp?NewsID=34218](http://themedialine.org/news/news_detail.asp?NewsID=34218)

As the days of Syrian President Bashar Al-Assad increasingly look numbered, concerns are mounting that the regime’s vast stockpile of chemical weapons might fall into the hands of militants by accident or by plan.

No one knows the size and quality of the arsenal of weapons of mass destruction (WMD) that the Al-Assad regime has

accumulated over the years. Its nuclear aspirations probably ended with a mysterious 2007 attack on a suspected nuclear facility, and experts are divided on whether Syria has biological weapons.

But they are nearly certain that Damascus operates a comprehensive chemical weapons program that encompasses production and delivery capabilities.

Major-General Amir Eshel, the head of the Israeli military’s planning division, was the latest official to express concern about what will happen to Syria’s WMD. He told reporters in Jerusalem this week it was only a matter of time before some of the arsenal makes it was out of government-secured facilities.





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“We are talking about huge stockpiles,” he said. “That’s a major concern because I don’t know who is going to own those the day after. Up till now, what has been transferred to Hizbullah? What will be transferred to Hizbullah? What will be divided between those factions inside Syria?”

The Wall Street Journal reported in late August that a joint U.S.-Israeli surveillance operation has been monitoring Syria’s chemical weapons stockpiles. Washington reportedly has contingency plans if there are signs that the regime is preparing to use chemical weapons or pass them on to organizations such as Hizbullah.

Al-Assad is not the first despot in distress to arouse concern about chemicals weapons. As Libyan strongman Muammar Qaddafi’s regime was unraveling in the face of civil war last summer, the U.S. and other powers worked to ensure that the country’s WMD didn’t fall into the wrong hands.

That program so far has gone well, with the global monitoring body, the Organization for the Prohibition of Chemical Weapons (OPCW), due to report on Friday on it’s the cleanup in Libya to date. “We’ve had very good cooperation,” Michael Luhan, OPCW’s spokesman, told The Media Line about Libya’s transitional government.

But Syria’s chemical weapons horde is believed to be many times bigger and more sophisticated. How big and how sophisticated is anyone’s guess because Damascus never agreed to any international oversight.

“Syria has never signed the Chemical Weapons Convention and has been indifferent over the years to our consistent overtures to open a discussion on the issue,” Luhan said. “We’re monitoring events in Syria closely ... and hope whatever situation subsequently develops from the turmoil will create more favorable circumstances for joining the convention.”

The Monterey Institute’s James Martin Center for Nonproliferation Studies (CNS) believes that Syria has probably acquired the ability to develop and produce chemical weapons agents including mustard gas and sarin, and possibly the VX nerve agent.

Syria also possesses the means of aiming those lethal substances to targets.

While it may have dropped a program to arm short-range missiles with chemical warheads following a 2007 accident, Syria has long-range

Scud-B and Scud-C ballistic missiles capable of being fitted with chemical warheads. It may also stockpile artillery shells and rockets filled with chemicals.

“There’s a huge difference between the two arsenals,” Leonard Spector, director of CNS’s Washington DC office, told The Media Line.

“The Libyan arsenal had been under inspection so its scale was well known. We did find some additional weapons but by and large it was understood,” he said. “The Syrian capability not only includes World War I-type chemical agents like mustard gas that are semi-liquid, but they have the advanced nerve agents developed more recently.”

John Hart, head of the chemical and biological security, said that of the suspected Syrian chemicals stockpile VX and sarin are potentially the most lethal, but creating large-scale threat would require obtaining large amounts of the toxins.

“The only weapons on the chemical side that might cause large numbers of deaths are organo-phosphorus nerve agents,” he said. “Hundreds of tons of chemical weapons agents are generally required for operations against military forces in the field.”

Syria’s biological capabilities, if they exist at all, are shrouded in more mystery. American experts have said Syria can produce anthrax and botulism toxins, but a Swedish Defense Agency report in 2004 found no evidence of a program, according to the CNS.

If Syria was on its way to developing nuclear weapons – a charge it has vehemently denied – an aerial attack on its facility at Dair Alzour, which was suspected of housing an unfinished atomic reactor, likely put an end to them. Israel is believed to have been behind the September 2007 raid, but it has never claimed responsibility.

Some analysts fear Al-Assad might opt to transfer some of the arsenal to his allies Hizbullah, the Lebanese Shiite movement that fields a huge militia and has fought Israel, most recently in 2006. Others see a risk that the Al-Assad regime might use chemical weapons against its own people.

Even after battling opposition forces for 10 months Al-Assad has so far not lost effective control of any part of the country. But chaos could enable rebels, foreign militant groups or arms dealers to raid the chemical weapons depots.



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Michelle Dover, a researcher writing in World Politics Review last month, noted that the cities of Homs, Hamah and Latakia are both major centers of unrest and suspected of hosting important chemical-weapon production facilities. Aleppo, which has also witnessed major protests, is believed to be a center for missile production and storage. A suspected chemical weapons production site in Al-Safirah is nearby, she said.

“We believe they have munitions that are filled and ready to be used, like artillery shells and possibly aerial bombs,” said Spector of CNS. “There is a danger of some of these being taken during a conflict. Rebels will not be able to use missiles or bombs, but they could use artillery shells. And they could find a way to transport a bomb by truck.”

### Thinking underwear for warriors

By Allison Barrie

Source: <http://www.foxnews.com/scitech/2012/01/19/thinking-underwear-for-warriors/>



Jan. 14, 2012: Paratroopers run through a smokescreen during a live-fire exercise at the Joint Readiness Training Center, Fort Polk, La. Hight-tech undergarments will let the Army monitor warfighters of the future -- alerting a command center to the exact status of men on the ground.

Just don't call them Underoos.

Technically known as a “wear and forget physiological sensing system,” thinking undergarments may be the next-generation drawers for the modern warfighter.

Gel-free sensors form an electronic network in the fabric to monitor respiration and heart rate, activity, body posture and skin temperature -- relaying that data through the warfighters' layers of clothing to a central system. The technology could provide an unprecedented capability not just to monitor warfighters during combat and identify critical casualties but also to train and select for missions.

The U.S. Army Medical Research and Materiel Command office (USAMRMC) and the Telemedicine & Advanced Technology Research Center (TATRC) have been working with Foster-Miller and Malden Mills Industries to create the new low-cost knitted undergarments (photographs of the work in progress aren't available yet). One of their main objectives: to make the high-tech textiles super comfortable, so warfighters will indeed comply and wear them -- that's where the whole “wear and forget” part comes in.



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While it's possible to integrate the sensors into the battle defense uniform (BDU in military-speak), the focus has been on a plug and play undie approach that would stand alone and wouldn't add cost to existing standard issue.

Ultimately, intelligent undergarments could provide data on factors such as altitude adaptation, burn and blunt trauma, blood volume, metabolic activity, CBRN exposure, life sign detection and respiratory distress -- data that that predictive algorithms could be exploited.

And with acoustic sensors, the underpants could assess ballistic impact and thoracic sounds for trauma.

Current approaches to monitoring warfighters generally involve an awkward chest strap with an attached electronics unit that relays limited and at times unreliable information. Even basic Life Sign Detection Systems have proven beyond reach for many companies rendering their systems unfit for deployment

The Army Warfighter Physiological Status Monitoring System made considerable progress and measures heart and respiratory rate, activity, fluid consumption, skin and core body temperature, posture, activity and ballistic impact.

Aside from the chestband, companies working in the commercial space such as Bodywear tend to focus on armbands or vests, like VivoMetrics' "Life shirt."

This intelligent undergarment could be an excellent tool to train leaders to understand the physical limits of their warfighters. For the warfighter, it would be useful to help distinguish between real and perceived physical limitations, helping them push past these perceptions and improve performance.

Rate of injury in training may also be reduced by utilizing close bone and muscle monitoring that this technology could provide.

In terms of mission selection, with the physical status data that the undergarments could provide on warfighters and units, a leader may be better able to identify those most fit for the job.

While deployed, data from the undergarments could allow leaders to monitor performance

readiness, alert a leader to performance impairment and perhaps most importantly assess the ability of their warfighter to continue or complete the mission.

Fatigue is always a challenge and can erode performance. The undergarments could identify fatigue signals and alert the warfighter or leader that fatigue countermeasures should be exercised to ensure performance either in training or in an operational environment.

When warfighters are operating in a remote area or working in CBRN protective suits, the undergarments could be particularly useful for monitoring their health.

A command center could remotely monitor the physical status of each warfighter and would be immediately alerted if a warfighter was injured together with detailed data from the sensors.

For the medic in the field in the thick of it, the undergarments could provide information in advance of reaching the casualty to assist in more rapid assessment and effective triage. It could also prevent a medic from unnecessarily risking his life by notifying the medic that a warfighter is already dead.

In the conduct of contemporary warfare, warfighters are required to master and run ever increasingly complicated technologies such as targeting and weapons systems. For example pilots, whether fighter jet or helicopter, are responsible for extremely expensive advanced aircraft all requiring a high and constant degree of cognitive readiness in spite of often operating in superhuman lengths of shifts -- maintaining this readiness could usefully be monitored back at HQ.

Training professional athletes, monitoring the health of employees working in hazardous or industrial environments, telemedicine, civilian medical care and the exercise and health market in general are just a few of the other wider applications where the technology could be useful.

Right now this promising sensor system technology is in textile development -- but the ultimate goal is to make it work, and soon.



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### New UK plan could bring internationals complicit in Halabja massacre to justice

Source: <http://www.niqash.org/articles/?id=2976>



**Saddam Hussein's poison gas attacks on Halabja still claim victims today with locals sick and projects on hold because of contamination. International firms that supplied gas ingredients have never been brought to justice either. A new UK plan could change all that.**

Of all the crimes against humanity committed by former Iraqi leader, Saddam Hussein, the one that many still remember is the poison gas attack on the town of Halabja, in the northern state of Iraqi Kurdistan, in 1988. It resulted in the deaths of an estimated 5,000 civilians and injury to thousands more. And despite the time that has passed since, residents in the town today are still suffering from the ongoing effects of the gas attacks, whether physical, psychological or environmental.

The victims in Halabja were buried in mass graves shortly after the chemical gas attack, during which substances such as mustard gas and the chemical weapons, sarin and tabun, were used.

The chemicals killed Halabja's residents indiscriminately and the mass burial that took place afterwards, happened without the decontamination of the victims' bodies.

Hundreds of thousands of Iraqis are buried in mass graves around the country and the process of exhumation and identification is an ongoing one. After the fall of Saddam Hussein's regime in 2003, crowds actually descended on some well known mass graves, looking for their missing loved ones. Emotion took over as people were desperate to know

what had happened to their loved ones. This resulted in many graves being dug up and thousands of bodies being discovered; however the process was messy and unscientific.

The Halabja mass graves present an altogether different problem. "The last time we tried to dig the mass graves in Halabja a year ago, two of the workers died as a result and others were hospitalised due to their exposure to the mustard gas within the graves," Dr Yasin Kareem Amin, the director of the Forensic Laboratories in Erbil, said.

"The people in the mass graves were buried soon after the chemical attack and due to this there is a high risk of residual contamination. Therefore it is extremely dangerous to exhume these bodies without military standard chemical protection gear, equipment, expertise and training," explained Hamish de Bretton-Gordon, the CEO of British company SecureBio, which sent a delegation to Iraqi Kurdistan late last year to assess the situation with Halabja's mass graves. "If our project goes ahead, we will ensure that nobody else is killed or injured as a result of the Halabja genocide."

At a conference held in London last week - The International



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Exhibition and Conference on Mass Graves organized by the Iraqi Ministry of Human Rights to discuss and highlight human rights violations committed by the previous Iraqi government, led by Saddam Hussein - it was announced that SecureBio had submitted a

order to help identify victims' remains. Then there would be a survey of the Halabja area, followed by decontamination of cellars and buildings.

As yet the SecureBio plan has not yet been approved but it already has the support it



plan for further exhumation and decontamination of the Halabja sites. The plan is due to go to Iraqi Kurdistan's parliament for approval shortly.

De Bretton-Gordon said that when he visited Halabja in November 2011, tests that SecureBio, a company specialising in what is known as CBRN (chemical, biological, radiological, and nuclear) training and consultancy, had carried out indicated there were still "traces of mustard gas" present.

"SecureBio has already forwarded plans to the Kurdish government on how to safely exhume bodies from Halabja mass graves," de Bretton-Gordon continued, "as well as a comprehensive plan on how to identify the bodies by taking DNA samples on the scene, without spreading contamination wider."

SecureBio's proposals have been forwarded to Iraqi Kurdistan's Ministry for Martyrs and Anfal Affairs, an authority founded to look into ongoing issues of the genocidal Anfal campaign, during which close to 200,000 were killed and of which the Halabja gas attacks were a part. According to the plans, the project will be made up of four stages and will include the training of local experts in de-contamination and body identification.

After the safe exhumation of the mass graves in Halabja, the following phases of the planned project in Halabja would involve collecting DNA samples from the relatives of the missing in

needs. As Aram Ahmed Mohammed, the state's Minister for Martyrs and Anfal Affairs, told NIQASH, "we are supporting the project fully and we will make sure that the residents of Halabja get the maximum benefit from it. The project will be presented to Cabinet and Parliament and at the appropriate time, a budget will be allocated for it when we are satisfied with the plans."

"We want this project to go ahead because we want to bring closure to the families who are still waiting to find out about their missing relatives, and we want to give the bodies a dignified burial in Halabja – this will serve as a reminder for next generation and the world about the crimes committed against our people," Mohammed concluded.

The mass graves are far from the only issue that the people of Halabja are still living with. People here are still suffering from emotional trauma and living with the consequences of the historical attacks. As building begins on many new projects in the town, some of the projects have been delayed because of ongoing issues with contamination.

A source inside the Ministry told NIQASH that a local newspaper had recently reported on builders taken ill while digging foundations. Many basements are also still contaminated and when locals are exposed, they



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have suffered burns and other health problems, some of them fatal.

Another aspect of the new Halabja project is chemical attribution; that is, finding out where the chemicals that Saddam Hussein used against the town came from originally.

"Once we start exhuming the bodies, we will certainly find traces of the chemicals that were used," de Bretton-Gordon said. "And theoretically speaking, we can trace the chemicals back to the factory that produced it, by looking into the chemical signature of the substance and the manufacturing process used."

Previously companies in several countries in both Europe and further afield have been accused of selling the ingredients and

equipment to Iraq that allowed the manufacture of the poison gases used against Halabja's civilians. Some court cases have been brought but with relatively minor results. So although the SecureBio project will help to clean up Halabja and to bring emotional closure to local families, it may also provide evidence that is needed to finally bring those companies that knowingly sold chemicals to the former Iraqi dictator, to account.

It would be hard to predict the outcome of any court cases that result from the latter. Nevertheless the one thing that is guaranteed, if chemicals can be traced back to their suppliers, is that at least those companies responsible can be named and shamed.

## Army Agency Completes Mission to Destroy Chemical Weapons

Source: [http://www.domesticpreparedness.com/Government/Government\\_Updates/Army\\_Agency\\_Completes\\_Mission\\_to\\_Destroy\\_Chemical\\_Weapons/](http://www.domesticpreparedness.com/Government/Government_Updates/Army_Agency_Completes_Mission_to_Destroy_Chemical_Weapons/)

**Tue, January 24, 2012**

ABERDEEN PROVING GROUND, Md. - The U.S. Army Chemical Materials Agency (CMA) completed the destruction of the chemical weapons stockpile at Deseret Chemical Depot (DCD) in Utah on Jan. 21, 2012.



With the elimination of the Utah chemical weapons stockpile, CMA has safely destroyed nearly 90 percent of the Nation's stockpile of chemical agent and has successfully completed its



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mission to destroy all chemical agent munitions and items declared at entry into force of the Chemical Weapons Convention (CWC) and assigned to CMA for destruction. The CWC, an international treaty ratified by the United States in April 1997, required the complete destruction of the Nation's chemical weapons stockpile by April 2007. The United States was granted a five-year extension to April 2012 as allowed by the treaty.

"Completing destruction of this stockpile mission is a worthy and important accomplishment," said Secretary of the Army John McHugh. "This demonstrates our commitment to the elimination of chemical weapons, enhancing safety and security for our workforce, our communities and the nation."



The safe destruction of 27,473.65 U.S. tons (24,923.68 metric tons) of nerve and blister agents represents 89.75 percent of the Nation's chemical agent stockpile and is the culmination of more than 20 years of work by thousands of men and women at seven chemical demilitarization facilities located around the nation.

"CMA's workforce—government and contractor—has shown the utmost dedication to our mission," said CMA Director Conrad Whyne. "Many of them have committed their professional lives to chemical weapons disposal. It was only through their dedication and expertise that CMA and the Army were able to complete this mission."

The completion of CMA's chemical stockpile elimination mission was accomplished at the Tooele Chemical Agent Disposal Facility (TOCDF), located at DCD. The TOCDF was CMA's

last operating chemical demilitarization facility. CMA previously completed chemical agent destruction operations at:

- 2000: Johnston Atoll Chemical Agent Disposal System (JACADS), South Pacific (Closed).
- 2005: Aberdeen Chemical Agent Disposal Facility (ABCDF), Maryland (Closed).
- 2008: Newport Chemical Agent Disposal Facility (NECDF), Indiana (Closed).
- 2010: Pine Bluff Chemical Agent Disposal Facility (PBCDF), Arkansas (Closure in progress).
- 2011: Anniston Chemical Agent Disposal Facility (ANCDF), Alabama (Closure in progress).
- 2011: Umatilla Chemical Agent Disposal Facility (UMCDF), Oregon (Closure in progress).

"The safe destruction of more than 2.2 million chemical nerve and blister agent munitions and bulk containers at seven demilitarization facilities is a remarkable accomplishment for the CMA workforce at each site and systems contractors who operated each facility," said Heidi Shyu, Acting Assistant Secretary of the Army for Acquisition, Logistics, and Technology. "It also is a tribute to the cooperative spirit of the local officials, regulators and communities. Reaching this milestone has been a team effort – a team I'm proud to be part of."



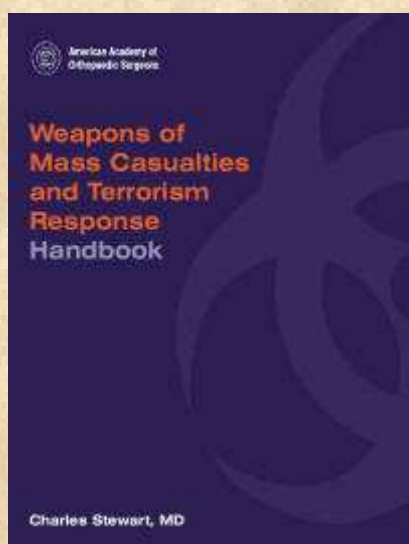
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CMA continues to support the Nation's chemical demilitarization program by providing ongoing assessment and destruction of recovered chemical warfare materiel through its Non-Stockpile Chemical Materiel Project.

CMA also retains the mission to safely and securely store the chemical agent stockpiles at Richmond, Ky., and Pueblo, Colo. Those stockpiles will be destroyed by the U.S. Army Element Assembled Chemical Weapons Alternatives (ACWA), a separate Department of Defense program. CMA will continue its partnership with ACWA to share the lessons learned from its successful chemical stockpile elimination program. CMA will also continue to manage the Chemical Stockpile Emergency Preparedness Program, a joint Army/Federal Emergency Management Agency program that provides emergency preparedness assistance to the communities surrounding chemical weapon stockpiles.

### ***Weapons of Mass Casualties and Terrorism Response Handbook***

Source: <http://www.storysmith.net/>



American Academy of Orthopaedic Surgeons (AAOS),  
Charles Stewart, MD, FACEP

ISBN: 0763724254

Price: \$99.95 (Sugg. US List)

Cover: Paperback

Pages: 500

Copyright: 2006

Published: 09/21/2005

I spent 5 years writing this book. The book has a lot of information - open source - but not easily available - that simply isn't available in other texts...It is NOT just another wannabe digest of the military publications, this book is the distillation of over 20 years of research and teaching about these weapons. For example... Try and find the Novichok agents in a government-sponsored textbook... (They were covered in congressional hearings, but aren't in any government-sponsored texts on chemical weapons.) Check out chapter 3. Another example... a protective agent/treatment agent for CN ("tear gas") exists... Try to find this without reading the book - Check out chapter 6. Third example... What are the doses of treatment agents for children? Not covered in most texts.

*Charles Stewart is a emergency physician and has written extensively on his 25+ year experiences "in the pit." An eclectic taste in reading and a passionate desire to put ink to paper have resulted in a wide variety of published articles, books, and computer programs. An engineering background led to an early interest in computers. Exposure in the military led to an interest in chemical warfare agents and blast effects.*

*A graduate of West Point in 1969, Dr. Stewart was a Lt. Colonel in the United States Army. He was the first cadet to be sent to Medical School by the United States Army. He is board certified in Emergency Medicine, has been a former oral examiner for ABEM, and has been an Associate Professor of Emergency Medicine at the University of Rochester. He received a Masters degree in Disaster Medicine from the European Master of Disaster Medicine program. in*





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2005 *He is a member of the American Medical Writer's Association. He was an emergency physician at the United States Air Force Academy hospital from 2005 to 2007.*

*Dr. Stewart is a graduate of the Tulane University MPH program with a subspecialty in disaster management. He finished this course of study in December, 2011.*

*Dr. Stewart is a Professor of Emergency Medicine at the University of Oklahoma School of Medicine and the Director of the Oklahoma Disaster Institute. He is the medical director for OKTF-1 Urban Search and Rescue and a member of OK-1 DMAT.*

*He is the author of over 150 articles and seven books, including Weapons of Mass Casualties and Environmental Emergencies 2nd Edition, both published by Jones and Bartlett in 2003, and Emergency Airway Management, published by Brady in 2002.*

*Dr. Stewart was a medical advisory board member for the EMS association of Colorado for many years. Dr. Stewart is a member of the editorial advisory and/or reviewer for Military Medicine, Emergency Medicine Reports, The European Journal of Emergency Medicine, Disaster Medicine and Public Health Preparedness (AMA) and for Emergency Medicine Practice. In December, 2011, he was appointed as a member of the Editorial Advisory Board for the European Journal of Emergency Medicine.*

*He has been writing and teaching about explosives and biological and chemical terrorism for over 25 years, since his experience as a medical officer with the NAIC/CAIC unit. (Nuclear Accident/Incident Control and Chemical Accident/Incident Control.) He is the author of the chapter on bioterrorism in Paul Maniscalco's Understanding Terrorism published by Brady, and of the chapters on field decontamination and chemical warfare agents in John Sullivan's Toxicology, published by Williams and Wilkins. He is also the author of Bioterrorism, published by American Health Consultants in 2000, and updated in 2001. He has given his lectures on terrorism and related topics to the United States Air Force Academy, the Coast Guard, the United States Navy, and the Department of Homeland Security.*

*Dr. Stewart was a visiting professor of Emergency Medicine at the University of the Urals in Sverdlovsk (Ekaterinburg), Russia (The site of the Sverdlovsk Anthrax release in 1979).*

### **Inspectors uncover Qaddafi's hidden WMD stockpile**

Source: <http://www.homelandsecuritynewswire.com/dr20120130-inspectors-uncover-qaddafi-s-hidden-wmd-stockpile>

Last week international weapons inspector found clear evidence that the late Libyan dictator Moammar Qaddafi had large caches of hidden chemical weapons, despite making a promise to destroy all weapons of mass destruction weapons in 2004.

[A large cache of chemical weapons was discovered near Al Jufra airbase // Source: defense-update.com](#)

Investigators from the Organization of the Prohibition of Chemical Weapons (OPCW),

the international watchdog group that regulates the global ban on chemical weapons, said they had found sulfur mustard and artillery shells "which they determined are chemical munitions." The shells were not loaded with any dangerous substances, but were designed to be filled with chemical weapons.

"They are not ready to use, because they are not loaded with agents," said Michael Luhan, a spokesman for OPCW.



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destroy in an effort to comply with international powers.

In 2004 Qaddafi said his regime had accumulated twenty-five metric tons (27,6 tons) of sulfur mustard and 1,400 metric tons (1,543 tons) of precursor chemicals used to make chemical weapons. In addition Qaddafi declared that his regime had more than 3,500 unfilled aerial bombs designed for use with chemical warfare agents such as sulfur mustard as well as three chemical weapons manufacturing facilities.

Qaddafi was in the midst of destroying these weapons stockpiles when the civil war broke out. Under the original agreement, Libya was scheduled to complete its destruction of its chemical weapons by 29 April, 2012, but due to the political turmoil will no longer be able to meet its goal.

Libya's new government has been given until 29 April to establish a plan to complete the destruction of the country's remaining chemical weapons.

Luhan would not provide any further details on the amount of chemicals discovered in the hidden stockpile, **but did say it was "a fraction" of what Qaddafi had publicly disclosed in the past.**

The latest discovery was unearthed in a depot in southeastern Libya along with other chemical weapons that he had pledged to

## Molecular dynamics to combat chemical terrorism

Source: <http://www.rsc.org/chemistryworld/News/2012/January/decontaminating-toxic-nerve-agents.asp>

Computers can make finding new ways of decontaminating the deadliest known chemicals safer and easier, according to US researchers.

VX (O-ethyl S-[2-(diisopropylamino)ethyl] methylphosphonothioate), made infamous by the 1996 Nicolas Cage film *The Rock*, is the most toxic nerve agent known and is also highly persistent. Although banned by the Chemical Weapons Convention, it is still important to understand and find new decontamination pathways to counter the threat of terrorism. However, traditionally, this is a very hazardous endeavour.

Richard Gee and his team at the Lawrence Livermore National Laboratory,

California, have shown that using first principles molecular dynamics (FPMD) can



reduce the number of dangerous



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experiments needed. They used their FPMD model to simulate known oxidation and hydrolysis pathways and compared their results to experimental findings. They obtained good agreements, which validate their method for understanding how VX interacts with decontamination solutions, so reducing the number of necessary experiments.

Although there have been other theoretical studies on VX decontamination, the researchers stress that this is the first time the solvent has been treated explicitly, allowing for a much more accurate simulation.

'Solvent conditions are known to have a profound effect on the mechanism of decomposition,' explains Gee, '[for example,] the main degradation product of VX can, in a

certain pH range, be just as toxic as the agent itself.'

Antonio Aguilar, a molecular dynamics expert at the University of Barcelona, Spain, praises the accuracy of Gee's model and recognises that it can be widely applied. 'These calculations, in principle, should not be faced with additional problems when considering other reactions or other solvents,' he says.

This application of simulation techniques to real-world problems is a major significance of the work, says Gee, and is something he is pursuing further. The computational approach has already been applied to the decomposition of sarin, the nerve agent used in the gas attack on the Tokyo subway in 1995. He is also applying it to condensed phase reactions of industrially relevant polymers.

## Bioterrorism and Weapons of Mass Destruction Education for Nevada Healthcare Professionals

By Monica A. Nathan, RN, BSN, MEd, CNOR

Source: [http://www.nursingceu.com/courses/367/index\\_mand.html](http://www.nursingceu.com/courses/367/index_mand.html)

**COURSE OBJECTIVE:** The purpose of this course is to inform nurses and other healthcare professionals about how to prepare for and respond effectively to an act of bioterrorism involving WMDs, methods to protect themselves and patients, and the role of the Nevada Health Alert Network.

### LEARNING OBJECTIVES

Upon completion of this course, you will be able to:

- Define "terrorism" and distinguish it from a criminal act and a mass casualty incident.
- Define "weapons of mass destruction" (WMD) and list the five general types.
- Describe signs and symptoms indicating possible exposure to common biological, chemical, and nuclear agents.
- Discuss current treatment methods, syndromic surveillance, and reporting procedures for acts of terrorism.
- List appropriate personal protective equipment (PPE) for healthcare workers treating patients potentially or actually exposed to biological, chemical, and nuclear agents.
- Discuss vicarious trauma, including personal strategies to cope with it.
- Identify steps for appropriate personal and facility preparedness for biological, chemical, and nuclear terrorist acts.
- Explain the Health Alert Network (HAN), including information available and features unique to the Nevada HAN (NHAN).

### INTRODUCTION

Violence and warfare as means for one nation, state, or group to achieve control over another are almost as old as humanity. Records of wars survive in legends and oral traditions, and some of man's earliest efforts at pictorial or language-based records deal with battles.

Records would indicate that for a long time wars were conducted primarily by and against other military forces using military means. Intentional infliction of direct casualties on civilians was considered inappropriate, or at least reserved for last-case situations.



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Similarly, civilian targets were not usually attacked for their own sake, but only if they had tactical or strategic value.

Advances in weaponry were focused in improving existing conventional technologies. It was only after chemical weapons as such were introduced in the trenches of World War I that widespread attention was directed to what would be termed “unconventional weapons.” Even so, the use of such weapons was, at least in the mind of the American general public, restricted to some remote battlefield.

This worldview changed for some nations before it did in the United States. But the images seared into our brains of the Murrah Federal Building in Oklahoma City in 1995, the September 11 attacks on the World Trade Center and the Pentagon, and the crash site of United Airlines Flight 93 have forced us to confront the reality that we as a nation and as individuals are potential targets.

It could be paralyzing to realize that no one is absolutely safe and no place is off limits as a target for those who seek to advance their agenda by fear. But it would be equally counterproductive to deny the threat and do nothing to prepare for such an eventuality, as a healthcare provider or healthcare facility.

### TERMS AND DEFINITIONS

To begin to respond effectively to acts of terrorism, it is crucial to have a clear understanding of what they are. One difficulty is that words and phrases with strong emotional overtones may be used primarily for their ability to engage an audience. Words with the root *terror* may be used incorrectly or overused to the point that their actual meaning is lost to the listener or reader. Professional literature, especially that which is peer-reviewed, can be a more objective source than popular media.

#### *What Is and Is Not Terrorism?*

The Federal Emergency Management Agency (FEMA) describes **terrorism** as “the use of force or violence against persons or property in violation of the criminal laws of the United States for purposes of intimidation, coercion, or ransom. Terrorists often use threats to create fear among the public, to try to convince citizens that their government is powerless to prevent terrorism, and to get immediate publicity for their cause” (FEMA, 2007).

In the Code of Federal Regulations (CFR), terrorism is defined as “the unlawful use of force and violence against persons or property to intimidate or coerce a government, the civilian population, or any segment thereof, in furtherance of political or social objectives” (FBI, n.d.).

Unlike strictly criminal acts, which pose a threat of personal injury of some sort, terrorism generally reflects “motivations that are chiefly political, ideological, or religious; often, some element of symbolism in the choice of target, together with the desire to elicit fear in a larger audience beyond the immediate victims of an attack” (FEMA, 2007).

How does a **mass casualty incident** (MCI) fit into this concept? An MCI is a situation “which generates more patients than available resources can manage using routine procedures” (Green, 2006). Terrorists usually select targets that will produce large numbers of casualties, so it is safe to assume that most acts of terrorism will also be MCIs. This means that healthcare providers and facilities will have to change the way they normally practice to appropriately respond to an act of terrorism.

#### *Types of Terrorist Attacks*

In seeking to understand terrorism, you may also encounter three additional “either/or” pairs of definitions:

- Domestic vs. international terrorism
- Hard vs. soft targets
- Overt vs. covert attacks

Referring to terrorism as “domestic” and “international” differentiates between the origin of the individuals or groups responsible for it, not to where the terrorist act takes place. The bombing of the Murrah Federal Building in Oklahoma City was an act of **domestic** terrorism, because those responsible were U.S. citizens. The events of September 11 were **international** terrorism, because although the targets were in the United States, the perpetrators were foreign nationals.

The relative hardness of a target refers to the amount of protection (physical structure, security personnel, and/or access controls) it has. A **hard** target is one that heavily protected and would be difficult to penetrate by either brute force or infiltration. For



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example, in the aftermath of the September 11 attacks, commercial airliners have been significantly hardened. A **soft** target is one with relatively few or no layers of protection. By their very mission, healthcare facilities need to be readily accessible to both patients and caregivers. It is sobering to realize that healthcare facilities' necessary openness makes them very "soft" indeed.

An act of terrorism may be either covert or overt, depending on whether the group announces its intent in advance. A **covert** attack takes its advantage from the element of surprise. Because of this, victims may arrive in multiple healthcare facilities before those facilities are aware there has been an attack and can implement their response plans. Besides creating an obvious overload, such victims may contaminate the facility or caregivers, thus limiting the ability of the system to care for them or later-arriving victims.

An **overt** attack, because it is predicted in advance or immediately claimed by the responsible group, relies heavily on panic as an impact multiplier. The announcement prompts individuals in both the identified target area and well beyond to seek information and assistance from public and private resources. The sheer number of victims to be triaged may precipitate an MCI that overwhelms even systems that have a robust emergency response plan in effect.

In either scenario, because many terrorists' choices of agents have subtle and subjective symptoms, the system with may be flooded with both actual victims and people who are not affected but believe they have been.

### *Weapons of Mass Destruction*

In the popular press, the term *weapons of mass destruction* and its acronym, WMD, have taken on polarizing political overtones. However, those terms must retain an objective implication for healthcare providers if they are to respond appropriately if such weapons are used. That is, stick to the facts, whether your politics are red, blue, or absent.

According to the Department of Defense (2007), WMDs are "weapons that are capable of a high order of destruction and/or of being used in such a manner as to destroy large numbers of people. Weapons of mass destruction can be high explosives or nuclear, biological, chemical, or radiological weapons, but exclude the means of transporting or propelling the weapon where such means is a separable and divisible part of the weapon."

There are several taxonomies for differentiating between the types of weapons of mass destruction. The "B-NICE" acronym, from the Community Emergency Response Team (CERT) manuals, is an ironic but effective memory aid (CERT, 2003).

- **B**iological weapons
- **N**uclear weapons and radiological dispersive devices
- **I**ncendiary devices
- **C**hemical weapons
- **E**xplosive weapons

This course will focus on specific implications of the triad of nuclear/radiological, biological, and chemical—or "NBC" weapons. This course will not cover caring for victims of incendiary and/or explosive weapons, since the general principles of trauma care for patients suffering from burn or blast injuries apply to victims of terrorism using incendiary or explosive weapons.

If a "combined" weapon is known or suspected to have been used, caregivers should consider the need for PPE and the requirement to decontaminate the victim prior to or concurrent with treatment.

### NUCLEAR/RADIOLOGICAL TERRORISM

The use of radiation as a terrorist weapon may be either over or covert.

An **overt attack** could be carried out by the intentional deployment of a nuclear weapon or the use of a radiological dispersive device (RDD) or "dirty bomb." The latter involves the dispersal of nuclear material by using conventional explosives.

Both **nuclear weapons** and **RDDs** used in an overt attack have several things in common. They have the ability both to create damage (due to the explosive power of the weapon) and to contaminate persons and inanimate objects (due to the inclusion of radioactive material). Both rely heavily on the public fear of anything associated with nuclear use or radiation.



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Caring for their victims triggers the consumption of vast amounts of personnel and material resources to decontaminate casualties and clean up contaminated debris.

They differ in how the nuclear material is used. The creation of a true nuclear weapon requires the logistical and financial support to acquire the materials and the skill to create and deliver it. These complex factors may put it beyond the range of all but the most well-organized, supported, and financed groups.

An RDD also requires access to nuclear material but can use more readily available commercial-grade material. It also relies on far less sophisticated conventional explosive technology to disperse it. This makes it a potential weapon for a wider range of terrorists groups.

Placing radioactive material in a location where it would expose unsuspecting victims or contaminate common-use objects is how a terrorist group might conduct a **covert attack**. Examples include concealing it in a high-traffic location or contaminating food or water sources. A covert attack is a “low-tech” way to conduct radiation terrorism. Logistical requirements might be as simple as a trowel to bury material in planters at a busy public transportation plaza or a take-out cup to carry the contaminant around a crowded market.

### Radiation Basics

In its purest meaning, radiation is any form of energy propagated as rays, waves, or energetic particles that travel or radiate from their source. Radioactive materials are composed of atoms that are unstable. An unstable atom gives off its excess energy until it becomes stable. The energy emitted is radiation. The process by which an atom changes from an unstable state to a more stable state by emitting radiation is called radioactive decay or radioactivity (CISAC, 2002a,b).

Radiation can be either non-ionizing or ionizing. Non-ionizing radiation has enough energy to move atoms in a molecule or cause them to vibrate, but not enough to change them chemically. Examples include radio waves and visible light. Ionizing radiation has enough energy to break the bonds that tie electrons into the atoms or molecules that make up ordinary substances. It deposits a large amount of energy into a small space. This can be a positive attribute when it is used as a method of medical treatment or negative when it is harnessed into a weapon.

### UNITS OF MEASURE

How radiation is expressed is determined by the relationship of its amount to another factor. There are two systems in use; the conventional system is generally used in the United States.

#### UNITS OF RADIATION MEASUREMENT

| What is Being Measured                        | Conventional System | Système International d'Unités (SI) | Conversion Factor  |
|---|---------------------|-------------------------------------|--------------------|
| Radiation given off by a radioactive material | Curie (Ci)          | Becquerel (Bq)                      | 1 Ci = 3.731010 Bq |
| Radiation dose absorbed by a person           | Rad                 | Gray (Gy)                           | 100 Rads = 1 Gy    |
| Biologic risk of exposure to radiation        | Rem                 | Sievert (Sv)                        | 100 Rems = 1 Sv    |

Sources: CDC, 2003a; Wolbarst et al., 2010.

It is critical to note that exposure to radiation does not make a person radioactive. A patient undergoing diagnostic or external therapeutic radiation is exposed but not radioactive. Victims of a radiation terrorist attack are in the same category as patients undergoing invasive radiation therapy. Once the radioactive material is removed from their bodies by decontamination, they do not pose a risk to care providers.

### MEASURING DEVICES

Because radiation cannot be detected by human senses, a device must be used to confirm or exclude its presence. In the case of a radiation terrorism incident, two general types of



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devices will be used, one to survey victims or healthcare workers and the other to monitor healthcare workers' cumulative exposure

**Radiation survey meters**, colloquially known as “Geiger counters,” identify the presence of radiation in the environment or on the surface or within victims. They are used during triage and decontamination of victims.

The second type of measuring device is a **personal dosimeter**, and it is part of the PPE for persons facing exposure to radiation as part of their duties. “Personal” dosimeters are just that: they are intended to monitor the exposure of one individual. They should not be shared, as that would provide incorrect information on any and all persons involved in the sharing.

The dosimeter used during a radiation emergency such as the aftermath of a terrorist attack will most likely differ from that used during routine healthcare provision. The everyday film badge, as it is often called, or similar ring devices are not self-reading and do not provide real-time information on exposure. Given the relatively low levels of radiation exposure experienced in usual circumstances, the monthly or quarterly reporting interval of film-badge-type monitoring provides adequate exposure information to both the wearer and those responsible for facility radiation safety. However, in the event of a terrorist attack using radiation, care providers will have much greater than usual potential exposure over a significantly shorter period of time. They will need real-time information on their exposure so they can remove themselves to a safe area before they exceed recommended levels.

Information on exposure must be immediately available to the wearer when (s)he is responding to a radiation emergency. The normal safeguards of time-distance-shielding are reduced or absent, given the urgent need of the victims. The newest personal dosimeters provide sophisticated **real-time information** on exposure; many come with alarms to indicate that the wearer is approaching maximum allowable exposure and have the ability to automatically download information to a computer.



Dosimeters: film badge (left), ring badge (center), and real-time (right). (Source: OSHA and U.S.D.H.S.)

### EFFECTS OF RADIATION

Radiation injury to the body happens in one or more ways. External irradiation occurs when all or part of the body is exposed to penetrating radiation from an external source. This radiation can be absorbed by the body or it can pass through the body.

Radioactive **contamination** occurs when radioactive material is deposited on or in an object or a person. Radioactive materials released into the environment can cause air, water, surfaces, soil, plants, buildings, people, or animals to become contaminated. A person exposed to radiation is not necessarily contaminated. For a person to be contaminated, radioactive material must be on or inside the body.

Radioactive contamination can be external, internal, or both. When radioactive materials—in the form of dust, powder, or liquid—come into contact with a person's skin, hair, or clothing, he or she is considered **externally** contaminated. External contamination can be removed by shedding contaminated clothing and/or completely washing off the source of radioactivity.

If radioactive materials get inside the body through the lungs, gut, skin, or wounds, the contaminant can become deposited **internally**. Incorporation is the process of the uptake of radioactive materials by body cells, tissues, and target organs such as bone, liver, thyroid, or kidney. Incorporation cannot occur unless contamination has occurred (ORISE, 2002). Internal contamination continues until the radioactive material decays, is flushed from the body by natural processes, or is removed by medical countermeasures.

### RADIATION ILLNESS

Once a person has been exposed to radiation beyond a therapeutic dose, radiation-induced illness may occur. Two major categories have been identified: acute radiation syndrome (ARS) and cutaneous radiation syndrome (CRS) (CDC, 2005a, b).



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### *Acute Radiation Syndrome*

ARS is caused by total or near-total body irradiation by a high dose (>0.7 Gy or >70 rads) of external, penetrating radiation over a very short period of time (minutes). Onset and severity of symptoms are related to the severity of exposure. Victims in close proximity to the detonation of either a nuclear device or an RDD would receive the intense exposure that causes ARS.

There are three stages of ARS:

1. In the **prodromal stage**, the patient experiences nausea, vomiting, anorexia, and possibly diarrhea. This can occur episodically within minutes to days following exposure; the duration of symptoms can vary.
2. Following the prodromal stage, the patient looks and feels generally healthy for a few hours to a few weeks. This is the **latent stage**.
3. The patient begins to experience symptoms specific to the part(s) of the body affected during the **manifest illness stage**. The symptoms depend on the specific syndrome (bone marrow or hematopoietic, gastrointestinal, or cardiovascular) and last from hours to several months.

The recovery process lasts from several weeks to two years. Most patients who do not recover will die within several months of exposure (CDC, 2005b).

### *Cutaneous Radiation Syndrome*

As the name implies, CRS presents as skin damage manifesting within hours, days, or weeks after exposure. It usually accompanies ARS and is caused by acute exposures to beta radiation or x-rays or contamination of the patient's skin or clothes. The patient experiences transient itching, tingling, erythema, or edema within hours or days. This is usually followed by a latent period. Lesions may not be seen for weeks to months post-exposure but then can be debilitating or even life threatening.

### *Syndromic Surveillance*

Syndromic surveillance is the collection of data about a series of incidents to determine if they represent isolated occupancies with only the appearance of a common cause, or if they are true indicators of a pattern. The starting point is a member of the healthcare team noting something out of the ordinary and asking, "What is going on?" It relies as much on objective knowledge of community trends as the instinct most people develop about what is "normal" for their setting.

If even one person presents with symptoms suggestive of nontherapeutic radiation exposure, aggressive investigation to discover the circumstances is warranted. Determination of the cause (accidental exposure, such as a workplace incident or intentional exposure caused by terrorists) will determine what actions beyond caring for the victim(s) are indicated.

Once the index of suspicion is raised, data is needed to rule in or out commonalities. The questions for syndromic surveillance in the case of possible radiation terrorism home in on the victim's circumstances more than symptoms:

- Where were you before you started experiencing...?
- What were you doing/eating/touching...?
- When did this happen?
- Were you alone or in a group?

The questioner needs to pose these questions in a sensitive manner. As soon as the possibility of a terrorist act or radiation incident is even implied, the victim's focus will likely shift inward. All but the most altruistic individuals will initially be more concerned with their own well being and that of their immediate circle than "the greater good." The questioner should help the patient remain calm and focused by providing fact-based reassurance while eliciting information that might provide clues to the scope of the incident.

In the case of a known or suspected covert radiation terrorist attack, syndromic surveillance focuses on case-finding and data collection. A covert release may lead to staggered (over time and to multiple facilities) patient presentation. The prompt collection and interpretation of data in a coordinated manner can decrease the time it takes authorities to locate and neutralize the





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radiation source(s). This will end the production of new victims. A secondary gain is the reinforcement of public confidence in the ability of the system to protect its people.

The primary function of syndromic surveillance in the case of an overt attack is as much triaging data as it is collecting it. Sorting out those most likely to have been affected from those frightened about the possibility will give a truer picture of the event as a whole.

### *Treating Victims of Nuclear/Radiation Terrorism*

The underlying, overriding principle in treating victims of radiation terrorism is simple: addressing contamination issues should not delay treatment of life-threatening injuries. Some victims of a terrorist attack involving radiation, especially if an RDD was used, will have immediate, life-threatening injuries. Thus, the initial care team should include staff with expertise in radiation safety as well as trauma-related injuries.

The facility disaster plan should contain information on how to contact individuals with this type of experience. For facility staff, an up-to-date alert roster should be readily available. If this expertise is not available in-house, a consultative relationship with a larger institution may be the answer, and that should be included in the disaster plan. In the absence of either of these options, or to augment them, the Radiation Emergency Assistance Center is available 24/7/365 (see “Resources” at the end of the course). This agency’s function includes deploying to and providing emergency medical consultation for incidents involving radiation anywhere in the world.

### **THE TRIAGE AREA AND DECONTAMINATION**

Two functions will occur in the triage area. Actual or potential victims will be distinguished from those people seeking information or reassurance, who will be routed to an appropriate area to receive those services. Secondly, those requiring decontamination and treatment will begin that process. This may include any healthcare providers who were exposed prior to learning of the radiation risk among patients.

The triage area should consist of contaminated and clean zones separated by a buffer zone. It should be located in an area where environmental and geographic factors will not lead to contamination of the facility as a whole. The decontamination area may be a permanent, purpose-built decontamination chamber or area, or it may be a temporary structure assembled as needed from prepositioned supplies. In simple terms, think of keeping contamination “downhill and downwind” from the facility. Consult the facility disaster plan for information on location and detailed setup.

### *Personal Protective Equipment (PPE)*

If assigned to work in the triage area, don appropriate PPE and use standard protection precautions. These are based on the theory of infection control Universal Precautions. The cornerstone of personal protection is the correct, consistent use of PPE.

In this case, PPE includes surgical attire (scrubs, impervious coverall suit or gown if coverall not available, mask, head cover, waterproof shoe covers, eye protection, and double gloves). N95 masks, if available, are recommended. The first pair of gloves is worn under the gown cuff and secured with tape; the second pair is worn over the cuff for ease of changing as needed.

Secure any open cuffs, hems, etc., with tape. Use a fold-over tab to facilitate the removal of tape. Wear a personally assigned dosimeter on the outside of the gown. A second dosimeter may be worn under the gown if facility policy dictates. If wearing a surgical gown, wear a waterproof apron over the gown when using liquids for decontaminating victims (USDHHS, 2010).

Lead aprons are not necessary. Their use can give a false sense of security and lead to disregard of evidence-based actions (ORISE, 2000/2002).

The use of science-based policies and procedures will protect caregivers. It is highly unlikely that the levels of radioactivity associated with a contaminated patient would pose a significant health risk to care providers if they follow protocols. However, due to fetal sensitivity to radiation, pregnant staff should be assigned to duties that will not put them in contact with exposed patients or contaminated materials (CDC, 2005a).

### **HAZARD TO “FIRST RECEIVERS” VS. “FIRST RESPONDERS”**



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OSHA has made a clear distinction between the site where a hazardous substance was released and hospital-based decontamination facilities. This distinction is important because it helps define the maximum amount of contaminant to which healthcare workers might be exposed (i.e., the quantity of material on living victims and their possessions when they arrive at the hospital).

The OSHA “best practices” document notes that during victim decontamination procedures, the hazard to healthcare workers is strictly from secondary exposure and is dependent on the type and strength of the contaminant and how long the worker is exposed to it. Thus, the possible exposure of first receivers is limited to the amount of substance arriving at the hospital as a contaminant on victims and their clothing or personal effects.

In the event of a primary or secondary attack at or near a healthcare facility, first receivers at that facility would face the increased level of exposure usually experienced by first responders. They would need to use the same PPE as first responders (OSHA, 2005).

### *Initial Survey*

Decontamination is a systematic process of evaluation, action, and reevaluation where objective findings determine the next step. It begins with an initial survey of the victim with a radiation meter. It should be done only by trained personnel using consistent technique to obtain valid, comparable results. The surveyor observes for both surface and embedded material. On-site radiation professionals are included on the response team to perform or supervise this function. Handle any visible radioactive material with forceps and store in lead or lead-lined containers. Document the details of survey, including date, time, surveyor, meter used, and findings (CDC, 2005a).

### **PERFORMING A SURVEY FOR RADIATION CONTAMINATION**

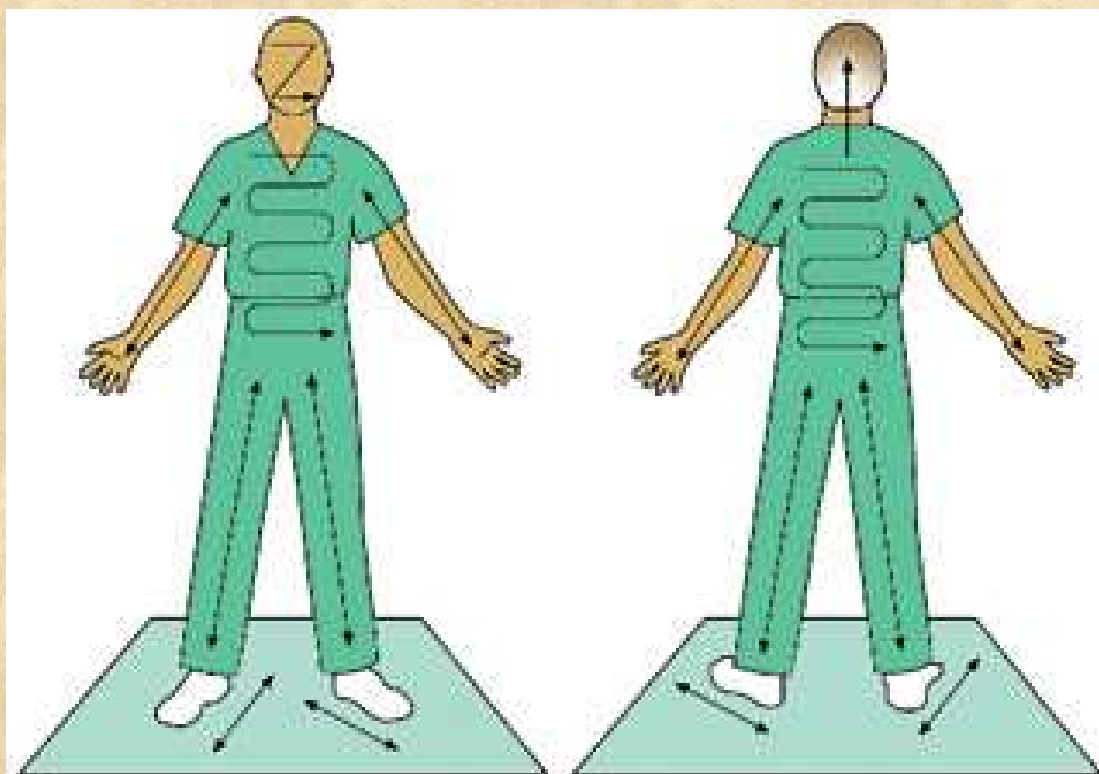
In the event of suspected radiation contamination, healthcare personnel will use an instrument such as a GM meter (or Geiger-Mueller radiation instrument) to survey a patient.

- Perform survey instrument check
  - Check instrument for calibration certificate
  - Perform battery charge check
  - Select desired survey mode
  - Obtain and record background reading
- Position person to be scanned
  - Standing upright on a clean pad
  - Feet spread slightly
  - Arms extended from body, palms up, fingers extended from the hand
- Conduct survey
  - Hold the probe about 1/2 inch from the surface being surveyed
  - Scan surfaces at a rate of 1–2 inches per second
  - Pass the probe over the body in a systematic way over the front, back, sides, head, armpits, groin, soles of feet, etc.
  - Hold the probe over areas of elevated readings for about 10 seconds to determine the “count rate”
  - Scan one side of the body at a time; repeat systematically on the reverse side



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- Record survey results or “count rates” on a body chart diagram before and



after each decontamination cycle

Source: DHHS, 2011. Images Source: Radiation Emergency Assistance Center/Training Site.

### **Removing Clothing**

Once the initial survey is complete, remove the victim's clothing. Cut and roll the clothing so that the outer surfaces are confined and contained within the rolls and any radioactive debris is also incorporated. Roll away from the face and any open wounds. Roll gently to avoid dispersing any radioactive debris.

Double-bag and label the clothing; preserve and store as possible evidence, following instructions in the facility disaster plan.

### **Secondary Survey and Cleaning**

Once the victim's clothing has been removed, perform a secondary survey in the same manner as discussed above. Then proceed to decontaminate the victim.

Allow the victim to assist or participate to the extent possible. Even the small measure of autonomy this provides may allow the victim to feel a degree of control over what has happened. Rinse any wounds with tepid saline or water.

If facial contamination is known or suspected, flush the eyes, ears, and nose and rinse the mouth. Clean intact skin gently with soap and water, starting outside the contaminated area and working inward. Do not scrub or rub the skin. Dry the skin gently and cover the victim's exposed skin once an area has been decontaminated. This serves the dual purpose of preventing unnecessary exposure and preventing loss of body heat.

For mass casualties, consider establishing separate shower areas for ambulatory and nonambulatory patients.

Perform a tertiary survey as discussed above and repeat decontamination steps, alternating with surveys, until radiation level is no more than twice background or unchanged from the immediate previous reading.

Cover any wounds with waterproof dressings and transport or assist the victim to the buffer zone. At that point, someone assigned to the buffer zone will assume responsibility for the



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victim. Once the victim has been decontaminated, Universal Precautions and routine assessment and care pathways are indicated (CDC, 2005a).

Dispose of wastewater and decontamination materials as directed by the facility policies.

When leaving the contaminated area, assigned personnel should remove and properly dispose of contaminated outer garments, shower if indicated in the facility disaster plan, and receive a body survey with a radiation meter.

### Assessing for Internal Contamination

Consider internal contamination if high survey readings persist following decontamination. Internal contamination generally does not cause early symptoms. Nose or mouth contamination may indicate inhalation or ingestion. Assessment may include analysis of urine, blood, and fecal samples or whole-body counts. Consult with radiation experts regarding an individualized treatment plan. For internal contamination, the following may be options: early administration of radionuclide-specific decorporation agents such as Prussian blue, DTPA, or bicarbonate and/or gastric lavage, and/or antacids and/or cathartics to assist in clearing ingested contaminants (CDC, 2005a).

### SCENARIO

Following the explosion of a dirty bomb at a crowded nearby casino, contaminated bystanders are transported to the local hospital emergency room. ED staff has been notified in advance and are wearing appropriate PPE when the victims begin to arrive. Treatment is begun immediately for unstable patients. For those without life-threatening injuries, providers begin by removing contaminated clothing from the individuals and placing it in property bags that are then properly labeled. Using GM meters that they have already checked, they conduct whole-body scans of the patients and record the readings.

Some victims have been injured by shrapnel from the blast. ED staff remove the shrapnel to protect against possible internal contamination. They clean the wounds, carefully catching any water run-off. They also wash the patients' bodies with soap and water to remove any external contamination. They then complete a second scan to determine the degree to which the decontamination process was successful.

### INITIAL TREATMENT OF ARS AND CRS

Treat vomiting immediately. Perform serial CBCs (emphasizing lymphocyte count) every 2 to 3 hours for the first 8 to 12 hours after exposure (and every 4 to 6 hours for the following 2 to 3 days). Precisely record all clinical symptoms, particularly nausea, vomiting, diarrhea, and itching, reddening, or blistering of the skin, including time of onset. Note and record areas of erythema. If possible, take color photographs of suspected radiation skin damage. Consider tissue and blood typing, as well as initiating viral prophylaxis.

Promptly consult with experts in radiation, hematology, and radiotherapy and radiation accident management about dosimetry, prognosis, and treatment options. After consultation, begin the following treatment (as indicated): supportive care in a clean environment (burn unit or similar area); prevention and treatment of infections; stimulation of hematopoiesis by use of growth factors, system cell transfusions, or platelet transfusions (if platelet count too low); psychological support; observation of existing or new onset erythema hair loss, skin injury, mucositis, parotitis, weight loss, or fever (CDC, 2005b).

With CRS, delayed occurrence of lesions is a differentiating factor from thermal burns. An important part of treatment is to document time of occurrence of lesions and progressive changes in appearance. Treatment of localized injuries is symptomatic, focusing on pain relief and prevention of infection (CDC, 2005a).

### MANAGEMENT OF DECEASED VICTIMS OF RADIATION TERRORISM

A victim who died after being **exposed** to a lethal dose of radiation without contamination is not radioactive and no special precautions are needed.

If the deceased victim is known or suspected to be **contaminated** either internally or externally, the body should be surveyed to determine the degree of contamination. The same procedure is used as for an initial survey of a living victim, using the same PPE.

Bodies should be tagged with both identification and radiation warning tags.



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Autopsy of minimally radioactively contaminated cadavers does not require precautions other than contamination control and protective clothing. Autopsies of highly radioactive cadavers should be restricted to the absolute minimum. For both exposure control and minimizing the impact on those performing these autopsies, it may be advisable to split the task among several persons.

Issues related to both burial and cremation is a function of the amount and type of radioactive material that remains in the body (DHS, 2003).

### *Psychosocial Aspects of Radiation Terrorism*

Terrorists count on the general public's fear of anything to do with radiation as a force multiplier. The number of patients seeking care is directly related to population size. In urban areas, this could be hundreds to thousands. Most will self-refer to the nearest hospital. While many may need decontamination, others may seek radiologic screening even though not contaminated. Many simply seek reassurance. Psychogenic symptoms, such as nausea or vomiting, may manifest. Mental health professionals should always be members of the response team and available in any first-receiver facility to provide such support.

Have radiation exposure fact sheets available for patients and families. As with all care, information must be in-language to meet a number of regulatory and voluntary accreditation standards and, more importantly, the needs of patients and their loved ones. Have translated sheets available in the predominant languages spoken in the area and/or use interpreters.

When interpreters are required to obtain or convey information, use previously identified facility staff whenever possible. Over-the-phone providers of interpretation are available, both as a subscription service and on an as-needed basis. Use family members or significant others only as a last resort. Most likely, they will be too overwhelmed by the situation to be effective communicators.

Pregnant patients and their families/significant others will require special counseling. Also consider establishing separate areas for radiation screening and counseling for patients with minimal risk of exposure or injury (CDC, 2005a).

### *Reporting Procedure*

Call the Radiation Emergency Assistance Center (see "Resources" at the end of this course) to record the incident in the Radiation Accident Registry System. Consult the facility disaster plan to determine who has the authority and responsibility to perform this notification.

## **BIOLOGICAL TERRORISM**

Biological weapons or biological warfare agents are "microorganisms such as viruses and bacteria that infect humans, livestock, or crops and cause an incapacitating or fatal disease. Symptoms of illness do not appear immediately but only after a delay, or 'incubation period,' that may last for days to weeks" (CNS, 2008).

The organisms themselves are found in nature but have been "weaponized," or adapted for use as a weapon. They will affect a broader segment of the human or animal population or crops than the naturally occurring form of the pathogen.

While the "chain of infection" still applies to diseases caused by exposure to biological weapons, the obvious difference is the mode of transmission link. Naturally occurring disease is almost always spread unintentionally. In many cases, it occurs as part of carrying out normal daily activities, with a contaminated hand or uncovered sneeze passing on the infectious agent. Intentional spread indicates biological terrorism.

Preparation to deal with bioterrorism has much in common with the epidemiology of emerging infectious diseases. As they do with naturally occurring diseases, healthcare providers and public health agencies must be prepared to deal with pathogens not normally presenting in this country or varying in their presentation and/or severity.

Terrorist groups may conduct either covert or overt releases of biological warfare agents. In the case of an overt attack, healthcare facilities in the immediate area will be inundated with victims, possibly without regard to the relationship between the stated time and place of release and the known incubation period.



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If the attack was covert, the arrival of victims at one or more perhaps widely spread facilities may be the first indication that an act of terrorism has occurred. Because most pathogens have an incubation period before the infected person begins to show symptoms, the attack may remain silent for some time. Additionally, infected individuals may further spread the agent just by following their daily routine. Biological agents may be dispersed by several means. Only aerosol sprays are reasonably practical. The use of small fixed-wing or rotary aircraft are an effective way to accomplish this. Explosive blasts have the potential to inactivate the agent. Contaminating public water supplies is not practical; it requires a large amount of agent to be introduced into the water after it passes through the water treatment facility.

### *Syndromic Surveillance for Bioterrorism*

Healthcare providers—including emergency department and acute care clinic physicians, nurses, and assistive personnel and infection prevention specialists—play a key role in initiating the response to an act of bioterrorism. Their knowledge of what is usual among their patient population will provide the starting point for syndromic surveillance.

Syndromic surveillance specific to bioterrorism refers to active surveillance of syndromes. These are case definitions based entirely on clinical features without any clinical or laboratory diagnosis that may be caused by potential agents used by biologic terrorists and sometimes refers to alternative measures such as increases in the use of over-the-counter drugs or increases in calls to emergency departments (Jamison et al., 2006).

The most **common features of an outbreak** caused by bioterrorist agents include:

- A rapid increase (hours to days) in the number of previously healthy persons with similar symptoms seeking medical treatment
- A cluster of previously healthy persons with similar symptoms who live, work, or recreate in a common geographical area
- An unusual clinical presentation
- An increase in reports of dead animals
- A lower incident rate in individuals who are protected (e.g., confined to home with no exposure to large crowds)
- An increase in number of patients who expire within 72 hours after admission to the hospital

Note that these factors all reflect changes from the norm; here is where the astute observer with a finger on the community's general "health pulse" can make a significant difference in how soon a response to the threat begins.

All of the previous clinical features deal with pattern changes in the community, not the victim's whereabouts prior to becoming ill. The one exception to the community comparison is any person with a history of recent (past 2–4 weeks) travel to a foreign country who presents with symptoms of high fever, rigors, delirium, rash not characteristic of measles or chickenpox, extreme myalgias, prostration, shock, diffuse hemorrhagic lesions or petechiae, and/or extreme dehydration due to vomiting or diarrhea with or without blood loss.

This aids in distinguishing between a potential victim of a biological weapon and a person who has been exposed to a naturally transmitted disease to which they have no community-acquired or vaccination-provided immunity.

While equipment for **detecting and identifying** biological agents does exist, there are significant drawbacks to the systems currently available. As it currently exists, the technology is geared toward detecting agents in the environment so that first responders can take appropriate precautions. It is not intended to be an aid to diagnosis. The equipment is complex and requires extensive initial and refresher training to insure the delivery of accurate information. Those factors, in addition to the cost involved to purchase and maintain such a system, keep this from being a practical community option.

### *Diseases with Potential for Use as Bioweapons*

The CDC has classified into three categories more than thirty organisms as having potential for use as a biological weapon. Classification is based on ease of dissemination,



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morbidity and mortality (M&M), potential for panic and social disruption, and requirements for public health preparedness.

- **Category A** diseases or agents are the highest priority, including those that pose a risk to national security. Included are anthrax, botulism, plague, and smallpox.
- **Category B** diseases are less easy to disseminate and result in lower M&M.
- **Category C** diseases are emerging pathogens that could be engineered for mass dispersion and have the potential to cause high M&M. (CDC, 2007a)

### ANTHRAX

*Bacillus anthracis* is a spore-forming organism, with the spores being the infectious element. In its natural state it is present in the soil, where it may be ingested by grazing animals. It can be transmitted to humans by handling or ingesting contaminated animals, animal products, or soil. Unless exposure is due to an intentional release, anthrax infections are very rare.

If contamination is from aerosolized powder or environmental exposures, PPE includes a respirator such as an N95 mask or equivalent or a powered air-purifying respirator (PAPR). Protective clothing is needed for decontamination of persons with powder on them.

### INHALATION ANTHRAX

Source: CDC, 2007c.

- |                     |   |
|---------------------|---|
| <b>Presentation</b> | <ul style="list-style-type: none"> <li>• First stage (10 days–6 weeks after exposure): nonspecific flu-like symptoms, fever, dyspnea, cough, congestion, anterior chest discomfort</li> <li>• Second stage (2–4 days after initial symptoms): respiratory failure, sepsis, hemodynamic failure</li> </ul> |
| <b>Treatment</b>    | 60 days of appropriate antibiotic, plus supportive intensive care   |
| <b>PPE</b>          | Standard Precautions  |
| <b>Notes</b>        | <ul style="list-style-type: none"> <li>• Hand hygiene must be a vigorous wash for 30–60 seconds with soap and water or 2% chlorhexidine gluconate after spore contact (alcohol handrubs inactive against spores)</li> <li>• Not contagious person-to-person</li> </ul>                                    |

### CUTANEOUS ANTHRAX

Source: CDC, 2007c.

- |                     |  |
|---------------------|--|
| <b>Presentation</b> | <ul style="list-style-type: none"> <li>• Within 2 weeks of exposure</li> <li>• Local edema in area of contact, progressing to itching macule or papule, then ulceration, then eschar formation</li> <li>• May include lymphangitis and lymphadenopathy</li> </ul>  |
| <b>Treatment</b>    | 60 days of appropriate antibiotic and wound care   |
| <b>PPE</b>          | <ul style="list-style-type: none"> <li>• Standard Precautions</li> <li>• Add contact precautions if uncontained copious drainage is present</li> <li>• Hand hygiene: Handwashing for 30–60 seconds with soap and water or 2% chlorhexidine gluconate after spore contact (alcohol handrubs inactive against spores)</li> </ul> |
| <b>Notes</b>        | <ul style="list-style-type: none"> <li>• Most commonly occurring form; about 2,000 cases annually worldwide</li> <li>• Fatality: 1% if treated; ≥20% if untreated</li> </ul>   |

### GASTROINTESTINAL ANTHRAX



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Source: CDC, 2007c.

- Presentation**
  - 2–5 days of ingesting of ingesting contaminated meat
  - Fever, diffuse abdominal pain and tenderness, nausea, and vomiting
  - May cause ulcerative lesions progressing to bowel perforation
- Treatment** 60 days of appropriate antibiotic, plus supportive care
- PPE** Standard precautions
  - Hand hygiene must be a vigorous wash for 30–60 seconds with soap and water or 2% chlorhexidene gluconate after spore contact (alcohol handrubs are inactive against spores)
- Notes**
  - Not reported in the United States

### SCENARIO

Several workers at a nearby bank were servicing the ATMs. One of the envelopes contained currency and a note stating the bills had been contaminated with anthrax. The workers were brought to the nearby hospital, and the facility disaster plan was activated.

The initial exposure at the bank was noted immediately and the area secured. The note stated that the attack was directed specifically at that branch. Given these circumstances and syndromic surveillance, authorities felt that no widespread exposure occurred.

As part of the disaster plan, the information officer conducted press conferences, stressing the reasons why there was no need for concern on the part of anyone not already identified as having been exposed. The community emergency operations center (EOC) notified all healthcare facilities in its catchment area. The social media liaison ensured that accurate information was immediately posted to the facility's public and in-house websites and social media accounts. All departments were briefed, and the alert system was used to inform off-duty personnel of the extent of the incident.

To no one's surprise, worried citizens showed up in large numbers. The infection preventionists, assisted by employee health and security personnel, set up a series of checkpoints to direct the "walking worried" to areas where they could express their concerns and be educated and reassured. Checkpoint personnel also sorted out friends and families of the exposed so they could receive support and information before they were reunited with the victims.

### BOTULISM

*Clostridium botulinum* is also a soil-inhabiting, spore-forming organism. The neurotoxin it forms is extremely potent; <1 microgram is fatal for adults. It causes respiratory paralysis. Without treatment, death can occur. Thirty to fifty cases of food-borne botulism occur in the United States annually. Botulism can be contracted by ingesting contaminated canned, smoked, or vacuum-packed foods, but also by inhaling spores.

### FOOD-BORNE BOTULISM

Source: CDC, 2006b.

- Presentation**
  - Adults: drooping eyelids, weakened jaw clench; difficulty swallowing, speaking, and seeing; symmetrical descending proximal-to-distal weakness and respiratory dysfunction
  - Infants and children: loss of head control, limb weakness, respiratory distress, constipation, lethargy, and loss of gag reflex
- Treatment**
  - Antitoxin (available from CDC; may reduce severity of symptoms)
  - Supportive care, including mechanical ventilation if needed
- PPE** Standard Precautions
- Notes** Can be prevented by administration of neutralizing antibody in the bloodstream; passive immunity can be provided by equine botulinum antitoxin or by specific human hyperimmune globulin, while endogenous immunity can be induced by





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immunization with botulinum toxoid

### INHALATION BOTULISM

Source: CDC, 2006b.

**Presentation** As for food-borne, but lacking GI symptoms

**Treatment**

- Antitoxin (available from CDC; may reduce severity of symptoms)
- Supportive care, including mechanical ventilation if needed

**PPE** Standard Precautions

### PLAGUE

*Yersinia pestis* is a bacterium that causes acute, potentially fatal infections in both humans and animals. It is naturally occurring in the United States, with 10–15 cases per year, mostly in Arizona, Colorado, and New Mexico. Plague is rarely naturally transmitted by inhalation, but that is the most likely means if the organism were to be released intentionally. If released as an aerosol, an outbreak of pneumonic plague is the anticipated result.

There are five principle forms of plague in humans, with bubonic, pneumonic, and septicemic being the most common. Plague meningitis and pharyngeal plague are the others. Ocular plague has been reported in free-ranging mule deer.

### BUBONIC PLAGUE

Source: USNLM, 2011.

**Presentation**

- 2–6 days after exposure: buboes (grossly enlarged, extremely tender lymph nodes with drainage at the inoculation site) and fever
- If untreated, can progress to septicemia or secondary pneumonic plague or plague meningitis

**Treatment**

- Antibiotics (streptomycin, doxycycline, gentamycin, ciproflaxin)
- Supportive measures: oxygen, IV fluids

**PPE** Standard Precautions

**Notes** Without treatment, about 50% fatality

### PNEUMONIC PLAGUE

Source: USNLM, 2011.

**Presentation**

- 1–6 days: acute onset of fever & chills, malaise, myalgias, and progressive lethargy
- If untreated, can progress to adult/acute respiratory disease syndrome and refractive pulmonary edema, shock, hypotension, and multiple organ system failure or plague meningitis

**Treatment**

- Antibiotics (streptomycin, doxycycline, gentamycin, ciproflaxin)
- Supportive measures: oxygen, IV fluids

**PPE** Droplet precautions until patients have received 48 hours of appropriate antibiotics, then Standard Precautions

**Notes** Without treatment, about 50% fatality

### SEPTICEMIC PLAGUE

Source: USNLM, 2011.

**Presentation**

- Usually secondary to pneumonic or bubonic plague; may be primary presentation
- Acute onset of fever and chills, prostration, abdominal pain, nausea, and vomiting
- May progress to include purpura, disseminated intravascular



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|                  |  |
|------------------|--|
|                  | coagulopathy, hypotension, and shock   |
| <b>Treatment</b> | <ul style="list-style-type: none"> <li>• Antibiotics (streptomycin, doxycycline, gentamycin, ciproflaxin)</li> <li>• Supportive measures: oxygen, IV fluids</li> </ul> |
| <b>PPE</b>       | Standard Precautions   |

### SMALLPOX

The *variola* virus causes smallpox in two forms. *Variola major* is the most common and most severe. It has a historical fatality rate of ~30%. *Variola minor* is less common and severe, with a historical fatality rate of ≤1%.

Transmission begins with virus particles being sloughed from the oropharyngeal lesions of an infected person. Inhalation of airborne droplets of this saliva introduces the disease to a new host. It can also be spread by direct contact with droplets or contaminated items such as clothing, bedding, or tissues.

Currently, the United States has a big enough stockpile of smallpox vaccine to vaccinate everyone in the United States in the event of a smallpox outbreak (CDC, 2007b).

### VARIOLA MAJOR

Source: Mayo Clinic, 2011.

|                     |   |
|---------------------|---|
| <b>Presentation</b> | <ul style="list-style-type: none"> <li>• 2–4 day nonspecific prodrome (fever, myalgia)</li> <li>• Vesicular/pustular rash developing simultaneously on the face and extremities</li> <li>• No specific treatment</li> <li>• Isolation</li> <li>• Supportive treatment, including fluid replacement and antibiotics for secondary skin infections</li> </ul> |
| <b>Treatment</b>    | <ul style="list-style-type: none"> <li>• Vaccination before or within 2–3 days after exposure affords almost complete protection against developing disease</li> <li>• Vaccination as late as 4–5 days after exposure may protect against death but not disease development</li> </ul>  |
| <b>PPE</b>          | Combined use of Standard, airborne, and droplet precautions until all scabs have separated (usually 3–4 weeks)  |
| <b>Notes</b>        | All emergency medical services and hospital personnel exposed to someone with smallpox require quarantine and vaccination if they have not been previously vaccinated   |

### Personal Protective Equipment

The chain of infection applies to both naturally occurring diseases and those caused by bioweapons.

The general principles of PPE for bioterrorism are based on the same precautions as those used to protect otherwise healthy patients from acquiring a healthcare-associated infection and in caring for patients with known or suspected benignly transmitted infections. These actions are often referred to as “Standard” or “Universal” precautions because they are in use with all patients. They include hand hygiene and, depending on the anticipated exposure, the use of gloves, gowns, masks, eye protection, or face shield.

With Universal or Standard transmission-based precautions, the portal of exit and mode of transmission determine the equipment needed. They are based on the principle that all blood, body fluids, secretions and excretions (except sweat), nonintact skin, and mucous membranes may contain transmissible infectious agents.

Specific PPE measures are discussed in conjunction with the disease presentations to which they apply. Consult the facility infection control manual for details on policies and products in use.



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### CHEMICAL TERRORISM

The first use of chemical weapons in declared warfare began in World War I, and they were most likely used again by the Iraqi army against the Kurds in late 1980s. Chemical agents are attractive to terrorists because they or their precursors are readily available. A glance at most kitchen sinks or garages will reveal any number of potential chemical weapons. As discussed in the earlier section on biological agents, releases may be overt or covert, with the same associated triage and psychosocial issues.

**Symptoms** of exposure to some chemical agents might be similar to those of common diseases. Immediate symptoms of certain chemical exposures might be nonexistent or mild despite the risk for long-term effects. Exposure to contaminated food, water, or consumer products might result in reports of illness over a long period and in various locations. Persons exposed to two or more agents might have a mixed clinical presentation. Healthcare providers might be less familiar with chemical agent presentation than with familiar illnesses (CDC, 2003b).

Chemical agents may be delivered by a variety of methods, limited only by the technology available to the terrorists. They may be dispersed by spraying of aerosolized agent or exploding a dispersal device. An agent may also be used to contaminate food, water, or some other necessity or commonly used item or by compromising a chemical manufacturing, storage, or distribution facility.

#### *Syndromic Surveillance Considerations for Chemical Agents*

The CDC recognizes that the covert release of a chemical agent might not be easily identified. As with biological agents, identifying a covert release of a chemical agent will depend on alert healthcare professionals recognizing the situation as victims present. In addition to the cues associated with biological releases, there are some additional cues specific to chemical agent use. These include emission of unexplained odors by patients, rapid onset of symptoms after an exposure to a potentially contaminated medium, and a syndrome suggesting a chemical exposure.

The current practical limitations on biological agent detectors carry over to their chemical agent counterparts. They are primarily environmental sampling tools not designed to assist healthcare workers in diagnosis and treatment.

#### *Categories of Chemical Agents*

Based on type of effect, there are five major categories of chemical agents: blister, choking, blood, nerve, and incapacitation/riot control.

Unlike biological agents, which do not remain active in the environment for relatively long periods after delivery, chemical agents may. In terms of duration of potential effect and hazard target, chemical agents may be **nonpersistent**, in that they dissipate within a few hours. Nonpersistent agents are most dangerous to the lungs. **Persistent** agents remain active for up to a month on surfaces and are most dangerous to the skin.

### BLISTER AGENTS

Blister or vesicant agents are highly reactive chemicals that combine with proteins, DNA, and other cellular components to result in cellular changes immediately after exposure. Depending on the agent, signs and symptoms may manifest anywhere from 2 to 24 hours after exposure. Likely routes of exposure are inhalation, dermal contact, and ocular contact; ingestion is also possible.

### BLISTER AGENTS

Source: CDC, 2006d.

- |                     |  |
|---------------------|--|
| <b>Examples</b>     | Distilled mustard (HD), mustard gas (H), lewisite, mustard/lewisite, mustard/T, nitrogen mustard, phosgene oxide, sesqui mustard, and sulfur mustard   |
| <b>Presentation</b> | <ul style="list-style-type: none"> <li>• Burning, itching, red skin; prominent tearing, burning and redness of eyes; shortness of breath; nausea and vomiting</li> <li>• Signs: upper airway sloughing, pulmonary edema</li> </ul> |



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- Treatment**
- No antidotes for mustards
  - For lewisite or lewisite/mustard mixtures: British Anti-Lewisite, if available
  - Thermal burn therapy, including ocular burns; supportive intensive care, including respiratory support
- Notes** Smell of garlic, mustard or onion on body, oily droplets on skin

**CHOKING AGENTS**

Choking agents are delivered as gases; inhalation triggers the immune system. Fluids build up in the respiratory system, especially the lungs. Effects may be felt at once or delayed up to three hours.

**CHOKING AGENTS (EXCEPT RICIN)**

Source: Medscape, 2010a.

- Examples** Phosgene, chlorine, diphosgene, chloropicrin, oxides of nitrogen, sulfur dioxide
- Shortness of breath, chest tightness, wheezing, laryngospasm
  - Mucosal or dermal irritation/redness
- Presentation**
- Pulmonary edema; mucosal irritation (water solubility of agent good predictor of mucosal irritation)
  - ARDS/noncardiogenic pulmonary edema/infiltrate
  - No antidote
  - Management of secretions; O<sub>2</sub> therapy
- Treatment**
- Consider high-dose steroids to prevent pulmonary edema (only found beneficial for oxides of nitrogen)
  - Treat pulmonary edema with PEEP to maintain pO<sub>2</sub> >60 mmHg

**CHOKING AGENTS (RICIN)**

Source: CDC, 2008.

- Presentation**
- Clusters of acute lung or GI injury (depending on exposure); circulatory collapse; shock; tracheobronchitis, pulmonary edema, necrotizing pneumonia if inhaled
  - Ingestions: nausea, diarrhea, vomiting, fever, abdominal pain
  - Inhalation: chest tightness, coughing, weakness, nausea, fever
  - No antidote
- Treatment**
- Supportive care
  - For ingestion: charcoal lavage

**BLOOD AGENTS**

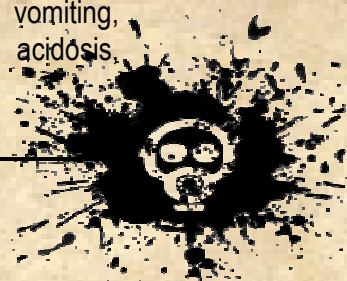
Blood agents are also intended for inhalation. They block the enzyme necessary for aerobic metabolism, depriving the red blood cells of oxygen and causing asphyxiation. Onset of symptoms is immediate—seconds to minutes.

**BLOOD AGENTS**

Source: Medscape, 2010b.

**Examples** Hydrogen cyanide, cyanogen chloride

- Presentation**
- Moderate exposure: giddiness, palpitations, nausea, vomiting, hyperventilation, drowsiness, headache; metabolic acidosis.



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- hypotension, pink skin
- High exposure: immediate loss of consciousness, convulsions, death in 1–15 minutes
  - 100% O<sub>2</sub> by mask or ET tube
  - Cyanide antidote kit:
    - Sodium thiosulfate injection: 12.5 g/50 mL (2 vials)
    - Sodium nitrite: 300 mg/10 mL (2 ampules)
    - Amyl nitrite inhalant: 0.3 mL (12 ampules)
- Treatment**
- Crush 0.3 mL ampul of amyl nitrite q1min and inhale vapor for 15–30 seconds until IV sodium nitrite infusion available
  - Following infusion of 300 mg or 10 mg/kg IV sodium nitrate, over 2–5 minutes, inject 12.5 g sodium thiosulfate IV over 10 minutes PRN; may repeat both injections at 1/2 original dose
- Notes** Bitter almond odor indicates cyanide

### NERVE AGENTS

Nerve agents affect the transmission of nerve impulses, causing death by shutting down the respiratory centers in the brain and paralyzing the respiratory muscles.

### NERVE AGENTS

Source: CDC, 2006a.

**Examples** Sarin, tabun, soman; organic pesticides

- Presentation**
- Moderate exposure: diffuse muscle cramps and tremors, runny nose, dyspnea, vision dimming, sweating; miosis, bronchial constriction, increased secretions, respiratory arrest, diarrhea
  - High exposure: as above, plus sudden loss of consciousness, convulsions, flaccid paralysis
  - Atropine (2 mg IV) every 5 minutes until effective
  - 2PAM chloride (600–1800 mg IM or 1 Gm IV over 20–30 minutes); maximum dose = 2 Gm over 1 hour
- Treatment**
- Diazepam or lorazepam for seizures if >4 mg atropine given
  - Ventilatory support

### SCENARIO

A woman walked into the showgirls' dressing room 30 minutes before the first show of the evening. In the controlled chaos, no one noticed her enter or set the door lock. Her phone vibrated, signaling that her accomplice was going to throw the breaker for the lights in 10 seconds. The woman punctured the lid of a large food storage container and placed the container on the floor near the door. As the lights went out, she left the room, closing and locking the door behind her.

The thirty-five dancers in the dressing room panicked and in attempting to reach the door knocked over the container, dispersing sarin and causing the liquid to vaporize. The dancers began inhaling the agent. Several fell, and their skin was exposed to the remaining agent in liquid form. All of the dancers began experiencing the symptoms of moderate exposure, with those nearest the door having a more immediate, intense reaction.

Their screams alerted other casino employees, who found a note on the locked door calling casino dancers "Jezebels" and promising further "sarin" attacks. Some employees called 911, while others broke down the door and began to assist their colleagues. Because not all of the agent had evaporated, some of the rescuers were also exposed and began to experience symptoms

First responders arrived and identified the situation as a sarin gas attack. Their assessment included the need to provide antidotes and possible ventilatory support for



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forty or more victims. Shortfalls to provide this care were readily apparent. While atropine and diazepam were readily available in their vehicle and from their base station in adequate quantities to treat the number of victims, 2PAM chloride was not.

The nearest hospital was notified, and it activated its disaster plan. However, it did not have adequate intensive care beds available to treat the number of victims anticipated to need ventilatory support.

The community EOC was notified. In accordance with the community plan, other hospitals were notified of the situation and alerted to the potential need to provide supportive care for a large influx of patients.

Previously identified sources for 2PAM chloride were contacted, and emergent delivery was made to the release site and the facilities poised to receive victims.

### INCAPACITATION/RIOT CONTROL AGENTS

Incapacitation and riot control agents are designed to be non-lethal but can cause injury or death because self-preservation behaviors may be overridden or inhibited. Large numbers of victims will easily overwhelm the healthcare system.

### INCAPACITATION/RIOT CONTROL AGENTS

Source: CDC, 2006c; Medscape, 2010c.

|                     |  |
|---------------------|--|
| <b>Examples</b>     | <ul style="list-style-type: none"> <li>• Incapacitation: BZ, LSD</li> <li>• Riot control: CS (“tear gas”), CN (Mace®)</li> </ul>   |
| <b>Presentation</b> | <ul style="list-style-type: none"> <li>• Incapacitation: dizziness, dry mouth, sweating, tremors; tachycardia, hypertension; bizarre behavior</li> <li>• Riot control: runny nose and eyes, shortness of breath, skin burns</li> </ul> |
| <b>Treatment</b>    | <ul style="list-style-type: none"> <li>• Incapacitation: as indicated, if injured; protection from further injury</li> <li>• Riot control: Flush eyes and/or skin; treat symptomatically</li> </ul>                                    |

### *Decontamination of Victims of Chemical Agents*

Removing the chemical agent from the victim’s person and clothing serves two purposes. It ends the victim’s exposure and limits injury to what has been received up to that time. It also significantly reduces the risk of exposure to healthcare workers.

Ideally, clothing should be removed and decontamination carried out before the victim is transported from the release site to the healthcare facility. Studies have shown that simply removing contaminated clothing can reduce the quantity of contaminant associated with victims by an estimated 75% to 90%. Having victims shower with tepid water and a liquid soap with good surfactant properties is widely considered the most effective method for removing the remaining hazardous substance from victims’ skin and hair. When the nature of the contaminant is known, the decontamination procedures can be adjusted to best remove the specific hazard (OSHA, 2005).

If clothing has not been removed and decontamination done prior to arrival at the healthcare facility, clothing removal and decontamination should be done before the victims are moved into the facility.

### *Personal Protective Equipment*

The following guidelines apply when the receiving facility is not the release site, the identity of the substance is unknown, and initial decontamination is done at the receiving facility.

Minimum PPE for personnel involved in the decontamination process, including post-decontamination cleanup, is extensive. Respiratory protection includes a NIOSH-approved powered air-purifying respirator (PAPR) or a combination 99.97% high-efficiency particulate air (HEPA)/organic vapor/acid gas respirator cartridges (also NIOSH-approved). Body surfaces should be protected with double-layer protective gloves, a chemical resistant suit with suit openings sealed with tape, head covering and eye/face protection (if not part of the respirator), and chemical-protective boots (OSHA, 2005).

Minimum PPE for personnel involved in patient care after decontamination consists of normal work clothes and PPE, as necessary, for infection-control purposes.



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**Left: air-purifying respirator (APR). Right: powered air-purifying respirator (PAPR).**  
(Source: OSHA.)

### FITTING A RESPIRATOR

Correct selection and fit of an individual respirator is critical for worker safety and should be done prior to need. Initial and annual refresher training is recommended to maintain proficiency in applying, wearing, and removing the respirator. Consult your

occupational health service for assistance in this process. This should be done by someone with expertise in the field.

Selection is based on fit to the face, to include accommodation of corrective and/or protective eyewear, comfort for a prolonged period, and the ability to speak and be heard.

Since fit is closely correlated to face size and shape, refitting should be done if significant weight and/or facial shape change occurs.

Source: OSHA, 2006.

### EFFECTS ON CAREGIVERS

Responding to an act of terrorism can provide a tremendous sense of satisfaction to healthcare providers. Knowing that one has made a significant difference to both victims and to the community as a whole is very rewarding. Previous training comes to the forefront of the mind and altruism provides the energy to convert knowledge into action.

Adrenalin will carry responders through the immediate period following the event. But the body and mind are not designed to sustain this level of stimulation for prolonged periods; when the individual's threshold has been reached, the effects will begin to manifest themselves. Once the initial response to the event is over and the euphoria of having made a difference has faded, then the delayed effects will make their appearance, both in physical and psychological ways.

### What Is Stress?

*Stress* is the term used to describe a variety of physiological and psychological stimuli that cause a physiological response. This was first described in 1936 by Hans Selye. In his research, he separated the physical effects of stress from other physical symptoms suffered by patients, observing that patients suffered physical effects not caused directly by their disease or by their medical condition. He termed this "general adaptation syndrome" and divided it into three stages:

1. Alarm reaction, where the body detects the external stimulus
2. Adaptation, where the body engages defensive countermeasures against the stressor
3. Exhaustion, where the body begins to run out of defenses

Stress can have a major impact on the physical functioning of the human body. It raises the level of adrenaline and corticosterone in the body, which in turn increases the heart rate, respiration, and blood pressure and puts more physical stress on bodily organs. In the short term, this allows a person to perform at levels beyond their normal limits. But once exhaustion is reached, even the strongest motivation loses its effect (PW, 2011).

### Types of Stress

Both victims and caregivers will show signs of stress. This can manifest as compassion fatigue, vicarious trauma, or burnout.

### COMPASSION FATIGUE

Compassion fatigue (CF) is the profound emotional and physical erosion that takes place when helpers are unable to refuel and regenerate (WHP, 2007). Caregivers for victims of



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terrorism must recognize that they need to take care of themselves so that they can continue to care for others. Likewise, peers need to look out for each other.

As a management function, supervisors have the responsibility to see that their subordinates are not only provided opportunities for breaks, but that they actually take them. In addition, supervisors must lead by example and model appropriate self-caring behavior.

### VICARIOUS TRAUMA

For the caregiver, especially in an intense situation such as responding to a terrorist act, the phenomenon called vicarious trauma is often observed. Unlike direct or experienced trauma, vicarious trauma is the result of changes in a healthcare provider due to empathic engagement with victims (CERT, 2003). The very thing that motivates people to enter the healing field can, if not recognized and planned for, make them victims as well.

Among the **physical manifestations** of vicarious trauma are anorexia and direct GI symptoms such as nausea, stomach pain, and diarrhea. Especially if the person reacts to this by not eating or eating less than usual, fatigue and reduced energy can result. Paradoxically, insomnia and hyperactivity are also possible. Headache and chest pain may present.

**Psychological signs** may present as exaggerated forms of a person's usual behavior or as reactions not usually seen, at least in the workplace. As the situation continues, these responses may become more frequent and/or stronger and/or requiring less and less to trigger them,

Irritability and outright anger are common early signs, as is denial. Blaming may be directed inward, outward at specific individuals or institutions, or generally. Feeling stunned, overwhelmed, or helpless may lead to isolation or withdrawal. Sadness can intensify to grief and then depression. Mood swings, even in the absence of a diagnosed illness, may present with accompanying physical manifestations. Problems with memory or concentration can complicate the caregiver's ability to function at their usual level at a time when their acuity is most needed.

At a time when support given to and received from ones personal and professional circles are of paramount importance, issues with interpersonal and/or professional relationships may suffer, as the caregiver becomes increasingly inwardly focused.

The pain caused by all of these physical and psychological factors can lead to self-medication with therapeutic and/or recreational substances.

The first and perhaps most important tactic to employ to minimize the impact of vicarious trauma is to be aware that it will occur, eventually and to some degree, to everyone.

### BURNOUT

Although commonly used interchangeably with the terms *compassion fatigue* and *vicarious trauma*, *burnout* is a term that has been used a great deal to describe the physical and emotional exhaustion that workers can experience when they have low job satisfaction and feel powerless and overwhelmed at work. Burnout does not necessarily mean that one's view of the world has been damaged or that one has lost the ability to feel compassion for others (WHP, 2007).

### Responding to Stress

Know your own personal stress triggers and how they manifest in your thinking and behavior. Use reflection on past situations to attempt to identify them yourself. If there is a trusted person in your circle, ask for his/her insight. Accept that you may not like what you discover, then use that lack of satisfaction as a starting point for change.

Work on incorporating healthier responses to stress. This may be a personal project or may require outside assistance. At a minimum, it can take 30 days to incorporate one simple change. Celebrate your successes. Treat setbacks (and they will occur) as a learning opportunity and an opportunity to start over.

Go back to the basics. Strive for an adequate intake of nutritious food, with comfort foods as treats, not essential components. Ensure an adequate fluid intake to maintain hydration and electrolyte balance.

Take periodic breaks as the situation allows. When told to "take a break," do so. Remove yourself at least mentally from the center of activity. Sleep when the situation allows. A 10-minute "power nap" can make a big difference in your energy level. Tell someone what you are doing and ask them to wake you if your internal alarm clock is fallible.





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In the event of a terrorist attack, be realistic as you assess your reactions and those of your colleagues and patients. Understand that abnormal responses to abnormal situations are normal. Consciously check in with yourself periodically to see how you are doing. Use your coping strategies. Watch out for your co-workers.

In the aftermath of responding to an act of terrorism, the most important task is to accept that things will never be the same and that you have been affected as a person and a professional. Take advantage of resources available in your workplace and community to help you move forward from what you have experienced. Don't wait for help to come to you; seek it out.

### **PREPAREDNESS**

Well-thought-out disaster plans should provide guidance on how individual healthcare providers and specific institutions will rapidly and effectively transition from "business as usual" to providing appropriate care to large numbers of victims of a natural or man-made disaster. While no plan can anticipate and spell out responses to every conceivable and inconceivable situation, there needs to be enough consideration given to either provide specific direction or serve as a starting point for rapid adaptation of what information is presented.

#### **Personal Preparedness**

In order to be able to respond effectively to an act of terrorism in your professional capacity as a healthcare provider, you must do everything possible to ensure that personal responsibilities have already been met. This is not to imply that concern for your loved ones will vanish because you have a household disaster plan in place. But the knowledge that you have done as much as possible to prepare should assist you in focusing on the workplace situation.

There are a variety of community resources available to assist in disaster preparation, as well as a variety of formats. Standardized nationwide classes offered by the American Red Cross and the Community Emergency Response Team program are a great starting point for preparing your own household and may be a doorway into community involvement as well (see "Resources" at the end of the course). Look at your own situation and identify what resources in your area are available that meet your and your household's needs. Then enroll yourself and your household in a class or begin your individual preparation.

Select someone out of the immediate area to serve as a contact to "check in" with in time of emergency. This person should have both the maturity and availability to accept this responsibility. Get that person's agreement ahead of time to act as your point of contact, and be sure everyone in your household knows how to reach the contact. Offer to reciprocate for your contact person.

Even if you never need to implement your household disaster plan because of a terrorist incident, you will be well prepared to deal with the more likely scenario of a natural disaster. General disaster preparedness translates directly to being ready for a terrorist incident, and vice versa.

#### **Professional Preparedness**

In the case of a terrorist attack, it is likely that you will be at work beyond your normal shift due to increased patient load. If the nature of the attack calls for quarantine or lock down, you may not be able to leave, nor will replacements be allowed to report for work. The emergency survival kit you may already have in your vehicle may not be accessible, nor will someone be able to bring you a "care package" from home, at least in the initial hours. Thus, you should keep a personal "survival kit" in a secure location in your workplace.

### **WORKPLACE "SURVIVAL KIT" CONSIDERATIONS**

- Contact lens case and solution and current prescription spectacles
- Batteries for hearing aid
- Several days' supply of any required or anticipated medication
- Extra socks and underwear
- Personal care products (deodorant, shampoo, oral hygiene products)
- Feminine hygiene or urinary care products, if needed
- Outlet charger for cell phone



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- Individual packets of water flavoring or electrolyte replacement products
- Ear plugs and an eye shade

Think outside the box, that is, beyond what you need for a normal shift. Ask yourself “What would keep me from being effective if I didn’t have it?” Remember to rotate anything with an expiration date.

Keep a small supply of nonperishable, ready-to-eat food items in your workplace as well. Look for a good balance of nutrients for your individual needs. Include comfort food as well as necessities, but concentrate on fueling your body, not soothing your mind. Check “use by” dates and rotate food items and beverages to maintain freshness.

Read or scan your **facility disaster plan**. The level of familiarity you need will depend on your position in your facility. Concentrate on understanding what your role would be in the event victims of a terrorist act were to present at your facility. Ask questions if there is something that is ambiguous or unclear. If something appears to be absent, use your chain of command to move your concern forward. Be tactful and mission-focused in articulating your observation. Consider offering to assist with revising or updating the plan. That makes you part of the solution, not a finger-pointer.

Read the section of the disaster plan that most closely spells out the role your unit or department would play in treating victims of terrorism. All of the above comments apply to this as well.

Periodically run a “mental disaster drill,” identifying how you anticipate you would participate in the event of a terrorist incident. Be an active participant in unit or facility safety drills and in the debriefing afterwards. If your unit or workplace maintains alert rosters or telephone trees, ensure that your contact information is current.

### *Facility Preparedness*

It is beyond the scope of this course to describe in detail the steps a healthcare facility should take to prepare to receive victims of a terrorism attack. The following guidelines are presented for development and/or review of a program designed to incorporate recognized best practices, take into consideration the needs of and resources available in the local and wider community, and provide the basis for dialogue in developing an interdisciplinary approach that will be effective for a facility’s likely role.

Much of the following material is taken from “OSHA Best Practices for Hospital-Based First Receivers of Victims from Mass Casualty Incidents Involving the Release of Hazardous Substances” (OSHA, 2005). Although some of the material is clearly designed for an inpatient-care setting with a complex organizational structure, it has applicability for a variety of healthcare facility types.

If your practice is other than hospital-based, as you read, mentally edit in the appropriate workplace designation that best describes your setting and consider what adaptations your facility would need to make.

### **REVIEWING THE FACILITY DISASTER PLAN**

The most practical way to develop or review your plan is to gather both individuals who will develop policies and those who will be responsible for implementing them and walk through a scenario in extreme detail. The administrative personnel will most likely have broader and deeper knowledge of both the facility’s resources and its role in the greater community response. The hands-on healthcare providers’ greatest contribution is usually the detail focus: they have the practical experience to ask and answer the critical “How will we...?” questions that move a plan from concept to action.

Ask yourself, What other things does our facility need to consider to ensure that as many questions are asked and answered in advance of the need?

### *Review Methodologies*

Facilities should consider their anticipated roles in the case of terrorist actions of varying types and sizes and how they would coordinate activities with other emergency response agencies and facilities within the community.

One very basic way to model how your facility would follow its existing plan (or what it would need to consider in creating or revising a plan) is to create a victim and follow him or her from arrival to discharge. This is called **tracer methodology** and should be familiar to anyone who has had a recent visit from a government or accreditation survey team. In this instance, you may define “discharge” as occurring when the patient is able to safely enter the mainstream



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care system or all the way to ultimate discharge from the facility.

### SCENARIO

Several staff nurses are part of an interdisciplinary working group asked to review their facility's disaster response plan. The group includes direct-care providers as well as middle and senior managers. Initially, each person reviews the part of the plan that relates to his or her occupation and likely role in the event the plan is activated. Then each occupational specialty group meets and prepares a summary report. One of the staff nurses is selected to present the nursing team's report.

In an effort to bring fresh eyes to a document that has been in place for several years, each team is then given a part of the plan out of their usual role. Nursing is asked to review the security portion. They discover that the plan does not reflect the opening of the new outpatient surgery center. Approximately 5,000 cases per year are done in these ORs. There are now additional doors for patients and staff, a small loading dock, and two corridors connecting to the main building. Prior to the opening of the center two years ago, there was an open house and extensive media coverage. In addition, every year Perioperative Nurse Week is observed with self-guided tours of the entire center for the public.

The team realizes that a substantial number of community members now potentially have intimate knowledge of how to access the hospital through outpatient surgery. The nursing team identifies several potential physical security issues to be addressed. They draw a sketch map of the new footprint, identifying the additional doors that need to be secured or monitored. In addition, they recommend that future open houses be limited to guided tours and do not allow unrestricted access to the entire center.

### Regular Plan Review

Activation of the disaster plan moves the facility from normal operating mode to responding to the crisis. The plan should be reviewed at least annually and whenever significant changes in structure or operation are made. Consider things like the date of the last full or partial revision, currentness of contact rosters, and changes in organizational structure that would have an impact on the plan.

- Does your facility have either an event (annual performance review) or date (semiannual time change) trigger to verify employee contact information for telephone trees?
- Is there a clearly stated responsible staff position and alternate to activate the plan for all situations, including evening and night shifts, weekends, and holidays?
- Are staff preassigned by name and/or role to specific areas or tasks? Does each staff member know what his or her role and duty station would be? Will whole areas or units have their role change?
- 

### MAINTAINING FACILITY SAFETY AND SECURITY

"Isolation" and "lockdown" elements of a plan describe how your facility will allow access to those presenting for care while simultaneously protecting for their safety and that of the caregivers and the facility infrastructure as a whole. The methods range from guards with keys at locked doors to sophisticated keycard systems controlled at a central command center. Hospitals need a method to control access if situations suggest that an unruly crowd will force its way into the hospital.

Site security personnel assist in maintaining order and directing traffic around the decontamination facility and the hospital entrances. This serves to correctly direct contaminated individuals, to prevent other staff from becoming exposed, to protect equipment, and to ensure contaminated victims do not bypass the decontamination area or enter the ED without passing inspection.

Consider how many access points exist in your facility. Some will be obvious, such as doors marked for staff, patient, and visitor entrance and exit. Others are subtler, such as delivery doors, loading dock areas, and tunnels. The combination of insider knowledge and desperation could turn these into the weak points in your perimeter.

- How many checkpoint personnel will be needed to monitor these points?
- Does your facility have an adequate number of security staff, or will you need to designate and train other workers to augment them?



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- Which areas require a fully trained security staff member and which could be covered by someone with limited security training?
- Are there adequate quantities of in-language signage to direct victims, families, media, and others to appropriate areas?

### DECONTAMINATION PLAN

#### *Predecontamination Triage*

In this area contaminated individuals are distinguished from other patients arriving at the hospital by identifying symptoms and a victim's proximity to the known agent release. In addition, staff assigned to this area identify patients who require immediate stabilization before they enter the decontamination system.

Remember that the need for immediate life-saving treatment supersedes decontamination.

- Are emergency treatment supplies needed for this area packaged in such a way that they can be quickly accessed by staff wearing PPE?
- Are they packaged in quantities that will meet the likely number of victims while not causing excess expense. (Remember, once items such as medications and most supplies enter this area, they are lost to the system.)

#### *Decontamination*

Plan in advance how you will learn as much as possible (as soon as possible) about the number of victims, the contaminant, and associated symptoms. Previous arrangements with first responder organizations can improve the timeliness and quantity of information received.

- What medical monitoring (e.g., vital signs) will need to be done on personnel before they enter potentially hazardous areas, such as predecontamination triage or decontamination?
- Where is PPE stored? Are adequate levels of all items readily available on site? Do staff know where to draw PPE items?
- Is a plan in place to assist victims (ambulatory and non-ambulatory) in removing contaminated clothing and securing personal property as soon as possible (within minutes of arrival)?
- Are approved hazardous waste containers available and is an area identified for them that is isolated outdoors so that contaminated items are not a continuing source of exposure?
- How will staff inspect or survey victims to evaluate the effectiveness of decontamination and guide decontaminated victims to the medical treatment area or back to the decontamination area?
- How will decontamination equipment itself be decontaminated or safely discarded if disposable?
- Is there a method to remind staff to remove PPE and decontaminate themselves before leaving the area?

#### *Hospital Post-Decontamination Zone*

After victims are inspected or surveyed and found to be free of contamination, a second, purely clinical, triage is conducted.

- Given that a larger number of potentially more seriously injured victims are involved, how will emergency department staffing be augmented to accommodate this patient increase?
- How could staff be diverted from their usual role to meet this need?



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### *Wastewater Management*

Wastewater from decontamination showers can contain low-level concentrations of the substance(s) with which victims are contaminated. How will the facility manage the wastewater generated during the decontamination process? This can range from complete water retention in a storage unit with eventual controlled removal to uncontrolled release into a parking lot or storm drain. Whatever process is built into the plan, it needs to be coordinated with local authorities and supporting contractors.

### *Solid Waste Management*

How will the facility manage the solid waste generated during victim decontamination activities? As it is hazardous waste, it can be managed by following the hospitals' existing hazardous waste management procedures. But can the system readily adapt to the sudden dramatic increase in this quantity of "red-bag" waste?

Authorities might request that certain types of waste be retained as evidence. In that case, the agency will provide instructions on handling the waste. How will staff be notified what they need to preserve versus what can be discarded?

### *Morgue Services*

Will bodies of the deceased require special handling due to the nature of the incident?

## THE HEALTHCARE FACILITY AS TARGET

As unthinkable as the intentional attack on a patient-care facility may be, the precedent does exist. As recently as February 2010, a hospital in Karachi, Pakistan, was bombed as it was providing care to victims of an earlier attack. Thus, some thought must be given to this situation.

For a targeted healthcare facility to continue to function, several criteria would need to be met. The physical integrity of at least part of the facility would need to be sufficiently intact and free of contamination. In addition, the intact area would need to be suitable for providing care or easily adaptable for that purpose. There would need to be uninjured workers in sufficient numbers and in a useful occupational mix to provide care. If the enhanced level of protective wear to function as first receivers was not stockpiled at the facility, the facility would need to obtain it from a source in the community.

## HEALTH ALERT NETWORK

The Health Alert Network (HAN) is a strong national program providing vital health information and the infrastructure to support the dissemination of that information at the state and local levels and beyond. A vast majority of the state-based HAN programs have over 90% of their population covered under the umbrella of HAN.

HAN ensures that each community has rapid and timely access to emergent health information provided by a group of highly trained professional personnel using evidence-based practices and procedures for effective public health preparedness, response, and service on a 24/7 basis.

### *HAN Messaging System*

The HAN Messaging System currently directly and indirectly transmits information to over one million recipients.

Message types are categorized by the level of urgency of the information.

- **Health Alert:** conveys the highest level of importance; warrants immediate action or attention
- **Health Advisory:** provides important information for a specific incident or situation; may not require immediate action
- **Health Update:** provides updated information regarding an incident or situation; unlikely to require immediate action
- **Info Service Message:** provides general information that is not necessarily considered to be of an emergent nature

For health emergencies that are unique to the state, a state or county officer may also send out alerts.



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The Health Alert Network helps to address issues created by our increasingly mobile society and pressures on local and state health infrastructures to be prepared to deal with public health emergencies, including terrorism response. Rapid and efficient communication systems help to ensure that critical events do not go undiagnosed or unreported while spreading to other localities (NSHD, 2007).

Local healthcare providers may find themselves on the frontline—in a position to notice unusual case patterns or a sudden increase in similar cases in the emergency room. Their facilities need to be able to respond quickly in such situations. The HAN is intended to help by providing ongoing surveillance activities to quickly identify potential health threats, laboratory capability to perform testing to determine the threat agent, the ability to conduct disease investigations, effective protocols for reporting incidents and sharing information, and efficient emergency communications among all involved parties (NSHD, 2007).

### Nevada Health Alert Network (NHAN)

NHAN is Nevada's state specific agency for participation in the nationwide program.

HAN members are identified and tracked in a secure database maintained by Public Health Preparedness. Subscription is free but does require an email address. Enrollees receive a user name and password and establish a personal profile to facilitate receipt of alerts. When an alert is received, the subscriber logs on to a secure website to retrieve the message and obtain links to any additional information (NVSNB, 2007).

Interested healthcare professionals should go to the Nevada Health Alert Network website for further information and links to the signup and login processes (see "Resources" below).

### SCENARIO

As part of the annual review of the facility disaster management plan, the team notes that only the CEO, COOs for nursing, medical staff, and laboratory and senior infection preventionist have Nevada Health Alert Network (NHAN) accounts. Queries reveal that the majority of individuals at and below senior management are unaware of the program.

The review committee conducts an education initiative to encourage wider participation. They send information out in the next facility electronic newsletter and have the infection prevention team do a multi-day, multi-shift staffed table display in the cafeteria. In addition, they hold a drawing for coffee cards; to enter, employees must correctly answer a question with a response only found on the website.

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## Aerosolized scopolamine protects against microinstillation inhalation toxicity to sarin in guinea pigs

Che MM, Chanda S, Song J, Doctor BP, Rezk PE, Sabnekar P, Perkins MW, Sciuto AM, Nambiar MP.

*Toxicol Mech Methods*. 2011 Jul;21(6):463-72.



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### Source

Closed Head Injury Branch, Center for Military Psychiatry and Neurosciences, Walter Reed Army Institute of Research, Silver Spring, MD 20910, USA.

### Abstract

Sarin is a volatile nerve agent that has been used in the Tokyo subway attack. Inhalation is predicted to be the major route of exposure if sarin is used in war or terrorism. Currently available treatments are limited for effective postexposure protection against sarin under mass casualty scenario. Nasal drug delivery is a potential treatment option for mass casualty under field conditions. We evaluated the efficacy of endotracheal administration of muscarinic antagonist scopolamine, a secretion blocker which effectively crosses the blood-brain barrier for protection against sarin inhalation toxicity. Age and weight matched male Hartley guinea pigs were exposed to 677.4 mg/m<sup>3</sup> or 846.5 mg/m<sup>3</sup> (1.2 × LC<sub>50</sub>)

sarin by microinstillation inhalation exposure for 4 min. One minute later, the animals exposed to 846.5 mg/m<sup>3</sup> sarin were treated with endotracheally aerosolized scopolamine (0.25 mg/kg) and allowed to recover for 24 h for efficacy evaluation. The results showed that treatment with scopolamine increased the survival rate from 20% to 100% observed in untreated sarin-exposed animals. Behavioral symptoms of nerve agent toxicity including, convulsions and muscular tremors were reduced in sarin-exposed animals treated with scopolamine. Sarin-induced body weight loss, decreased blood O<sub>2</sub> saturation and pulse rate were returned to basal levels in scopolamine-treated animals. Increased bronchoalveolar lavage (BAL) cell death due to sarin exposure was returned to normal levels after treatment with scopolamine. Taken together, these data indicate that postexposure treatment with aerosolized scopolamine prevents respiratory toxicity and protects against lethal inhalation exposure to sarin in guinea pigs.

### Post-exposure treatment with nasal atropine methyl bromide protects against microinstillation inhalation exposure to sarin in guinea pigs

Che MM, Conti M, Chanda S, Boylan M, Sabnekar P, Rezk P, Amari E, Sciuto AM, Gordon RK, Doctor BP, Nambiar MP.

*Toxicol Appl Pharmacol.* 2009 Sep 15;239(3):251-7. Epub 2009 Jun 11.

### Source

Department of Biochemical Pharmacology, Division of Biochemistry, Walter Reed Army Institute of Research, 503 Robert Grant Avenue, Silver Spring, MD 20910-7500, USA.

### Abstract

We evaluated the protective efficacy of nasal atropine methyl bromide (AMB) which does not cross the blood-brain barrier against sarin inhalation exposure. Age and weight matched male guinea pigs were exposed to 846.5 mg/m<sup>3</sup> (3) sarin using a microinstillation inhalation exposure technique for 4 min. The survival rate at this dose was 20%. Post-exposure treatment with nasal AMB (2.5 mg/kg, 1 min) completely protected against sarin induced toxicity (100% survival). Development of muscular tremors was

decreased in animals treated with nasal AMB. Post-exposure treatment with nasal AMB also normalized acute decrease in blood oxygen saturation and heart rate following sarin exposure. Inhibition of blood AChE and BChE activities following sarin exposure was reduced in animals treated with nasal AMB, indicating that survival increases the metabolism of sarin or expression of AChE. The body weight loss of animals exposed to sarin and treated with nasal AMB was similar to saline controls. No differences were observed in lung accessory lobe or tracheal edema following exposure to sarin and subsequent treatment with nasal AMB. Total bronchoalveolar lavage fluid (BALF) protein, a biomarker of lung injury, showed trends similar to saline controls. Surfactant levels post-exposure treatment with nasal AMB returned to normal, similar to





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saline controls. Alkaline phosphatase levels post-exposure treatment with nasal AMB were decreased. Taken together, these data suggest that nasal AMB blocks the copious airway

secretion and peripheral cholinergic effects and protects against lethal inhalation exposure to sarin thus increasing survival.

### New crime-fighting tools aim to deter and nab terrorists

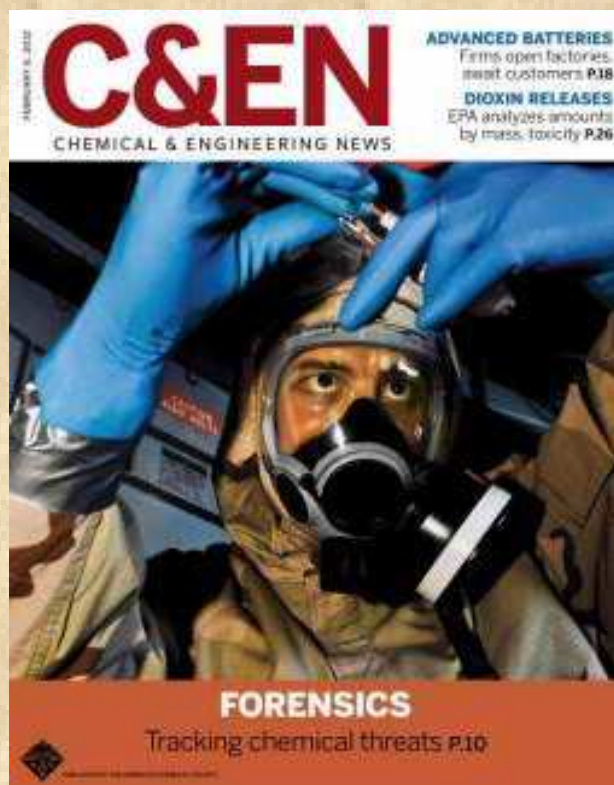
Source: [http://portal.acs.org/portal/acs/corg/content?\\_nfpb=true&\\_pageLabel=PP\\_ARTICLEMAIN&node\\_id=223&content\\_id=CNBP\\_029271&use\\_sec=true&sec\\_url\\_var=region1&\\_\\_uuid=4f45c88a-d05f-479d-b204-605a68221db2](http://portal.acs.org/portal/acs/corg/content?_nfpb=true&_pageLabel=PP_ARTICLEMAIN&node_id=223&content_id=CNBP_029271&use_sec=true&sec_url_var=region1&__uuid=4f45c88a-d05f-479d-b204-605a68221db2)

Fingerprints, ballistics, DNA analysis and other mainstays of the forensic science toolkit may

terrorist attacks and other criminal acts. That's the topic of the cover story in the current issue of *Chemical & Engineering News* (C&EN), the weekly newsmagazine of the American Chemical Society, the world's largest scientific society.

Bethany Halford, C&EN senior editor, focuses on an emerging field known as chemical forensics, where the goal is to use the technology of chemistry to trace weaponized toxic substances and related materials back to their source. A chemical forensic analysis could, for instance, show that ingredients in a terrorist's weapon were produced in a specific factory. Criminal investigators then could check sales records to determine exactly who purchased those ingredients.

The article explains that the research in the field has expanded substantially during the last few years due mainly to funding from the U.S. Department of Homeland Security (DHS) Chemical Forensics Program. With this research, DHS and chemical forensic scientists are sending messages to the public and to would-be terrorists, the article notes. DHS wants the public to know that the agency is preparing for future attacks, and terrorists to be aware that science is preparing to nab them if they do attack.



get a powerful new crime-solving companion as scientists strive to develop technology for "fingerprinting" and tracing the origins of chemical substances that could be used in

### The Syrian Dictatorship Prepares for Chemical Warfare

By Ryan Mauro

Source: [http://www.familysecuritymatters.org/publications/id.11404/pub\\_detail.asp](http://www.familysecuritymatters.org/publications/id.11404/pub_detail.asp)

The civil war in Syria escalates almost every week as rebel forces grow stronger and Bashar Assad and his Iranian-backed thugs grow in ruthlessness. And now, chemical weapons have been reportedly

delivered near the rebel stronghold of Homs and the regime's forces in the area are putting on gas masks.



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The Assad regime is not deterred by systems have arrived at a school in the



international condemnation resulting from the bloody images out of Syria, where over 7,000 citizens have been murdered. This is a regime that deliberately targets children, systematically tortures prisoners in ways fit for a horror movie and returns the battered corpses of 13-year old boys with missing fingernails and genitals.

It is worth remembering that Bashar Assad's father, Hafez, put down an uprising in Hama in 1982 by destroying the city and much of its population. It will never be known how many were massacred, but the number ranges between 10 and 40,000. There are unconfirmed but credible reports that cyanide gas, a chemical weapon, was used. The Assad regime is not one that has any moral qualms about the use of weapons of mass destruction and undertaking wholesale slaughter.

Yesterday (Feb 9), the opposition learned that chemical weapons and their delivery

province. Soldiers manning checkpoints have been given gas masks. This comes as the regime appears to be winding up for a knock-out punch. Over 130 people were killed in Homs alone yesterday, adding to a death toll of over 600 for the past six days. An armored brigade is headed towards the rebel-held city of Zabadani right now and rebel-friendly areas like Homs, Idlib and Daraa are being bombed more than ever. I warned back on January 23 that the regime could use its chemical and biological weapons against its opposition. Earlier in the month, Turkey intercepted four Iranian trucks on their way to Syria. One had components for ballistic missiles. The other three had a total of 66 tons of sodium sulfate, an ingredient used to make chemical weapons.



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In September, the regime used a small plane to spray pesticides in the northwestern cities of Rastan and Talbiseh when its forces battled local residents and army defectors there. At least 15 people were seen with yellow eyes and blood coming from their mouths and noses.

There are four possible explanations for what the regime is doing. The **first** is that the regime is simply trying to scare its enemies into giving up.

The **second** is that it is actually preparing to use its WMD and say it was the work of “armed gangs” and “terrorists” afterward. The fighting is getting worse, with the Free Syria Army briefly taking over suburbs of Damascus and protests now spreading to the critical city of Aleppo. The regime may have decided that it is best to use the most extreme measures to squash this revolution right now.

The **third** is that the regime is preparing to use chemical weapons if foreign forces intervene, a prospect increasingly talked about over the past week. In mid-November, Assad met with his commanders to discuss this scenario. The regime is said to have deployed 21 missile launchers near the border with Turkey and armed 600 one-ton chemical warheads onto missiles after that meeting. The Russians supposedly agreed to send an emergency shipment of 3 million gas masks that, according to the plan, would be distributed by the end of 2011. It is possible that the distribution near Homs is a

fulfillment of this plan and not a reflection of a decision to use chemical weapons right now.

The **fourth** possible explanation is that the regime is preparing its forces in case its chemical weapons fall into the hands of rebel forces or Islamic terrorists. The country never signed the 1993 Chemical Weapons Convention. Syria's chemical weapons stockpile is huge, with some assessing it to

be the world's largest, consisting of sarin, mustard, tabun, VX and whatever supplies have come in from Iran and possibly, from Saddam Hussein's regime ahead of the 2003 invasion.

The regime has multiple WMD facilities in restive areas that the rebels could potentially seize. A disloyal soldier or scientist could sell off these weapons or bring them along with him as he defects. WMD facilities are located in or near Aleppo, Homs, Hama, Latakia and Damascus—all places where the regime is fighting to hold onto power.

There's no way to know for sure what the regime is thinking now or will think tomorrow, but the U.S. should not be naïve enough to believe that Bashar Assad isn't evil enough to use WMD. The U.S. and its allies must react immediately to this report. Assad must be warned that that outside military intervention has not been decided upon yet but if he uses WMD, he will have made that decision for us.



*Ryan Mauro is the National Security Analyst for Family Security Matters. He is the Founder of WorldThreats.com, a national security analyst at Christian Action Network, a Strategic Analyst for Wikistrat and a national security commentator for FOX News.*





## **Trident One Mass Decon Shower**

Source: <http://www.tridentone.com/products.asp>

### **What Trident One Does**

Trident One is a turnkey, large capacity water deployment system that quickly and easily delivers a low pressure, high volume water shower to the greatest majority of people possible during a hazmat incident.

### **What Trident One Does Differently**

The Trident One's patented, telescoping arms

Response teams to achieve successful mass decontamination for the majority of people, while reducing the risk of harm and possible contamination to the first responder.

The Trident One will connect to ANY 2.5' discharge via the 45 or 90 degree coupling included in kit No. 4, making this device a must have for any First Responder or Emergency Management trailer.



create a wall of water unmatched by anything seen in the hazmat industry today. These mass decon giants dramatically increase the shower area, enabling Emergency Preparedness and

### **Tech Specs**

The Trident One is constructed from 6061 aluminum with a heat treatment designation of T-6. The Trident and all of its parts are machined to precision by a team of qualified technicians dedicated to perfection. Each and every Trident that leaves our manufacturing facility is tested for defects, assuring our client the best product available. Standard equipment on the Trident One is the three 150 GPM nozzles and the swivel female 2 1/2" (NHT) to rigid female 2 1/2" (NHT). The telescoping arms can be easily removed for scheduled maintenance and inspection. One extra full set of seals will be included with ALL Hydro-Therm, Inc. kits.



## Did you know this?

Source: <http://www.opcw.org/our-work/assistance-and-protection/protection-against-chemical-weapons/detection/>

### Manual Detection Methods

#### Detection Paper

Detection paper is based on certain dyes being soluble in CW agents. Normally, two dyes and one pH indicator are used, which are mixed with cellulose fibres in a paper without special colouring (unbleached). When a drop of CW agent is absorbed by the paper, it dissolves one of the pigments.

**Mustard** agent dissolves a **red dye** and **nerve agent** a **yellow**. In addition, **VX** causes the indicator to turn to **blue** which, together with the yellow, will become green/green-black.

Detection paper can thus be used to distinguish between three different types of CW agents. A disadvantage with the papers is that many other substances can also dissolve the pigments. Consequently, they should not be located in places where drops of, e.g., solvent, fat, oil or fuel can fall on them. Drops of water give no reaction.

On the basis of spot diameter and density on the detection paper, it is possible to obtain an opinion on the original size of the droplets and the degree of contamination. A **droplet of 0.5 mm diameter** gives a spot sized about 3 mm on the paper. A droplet/cm<sup>2</sup> of this kind **corresponds to a ground contamination of about 0.5 g/m<sup>2</sup>**. The lower detection limit in favourable cases is 0.005 g/m<sup>2</sup>.

#### Detection Tubes

The detection tube for mustard agent is a glass tube containing silica gel impregnated with a substrate (DB-3). Detection air is sucked through the tube using a special pump. The reaction between the mustard agent and substrate (see below) is speeded up by heating the tube with, e.g., a cigarette lighter. A developer is then added, and the result can be read-off. If the silica gel in the tube turns blue, then the vapour in the sample contains mustard agent.

$\text{Cl}(\text{CH}_2)_2\text{S}(\text{CH}_2)_2\text{Cl}$  (mustard agent) + pyridine-CH<sub>2</sub>-p-phenylidene-NO<sub>2</sub> (4-(4-nitrobenzyl)pyridine, **colorless**)

reacts at 110 °C in the presence of NaOH to give

$\text{Cl}(\text{CH}_2)_2\text{S}(\text{CH}_2)_2\text{N}=\text{CH}$ -pyridine -NO<sub>2</sub> (1-[1-[2-(2-chloroethylthio)ethyl]-1,4-dihydro-4-pyridylidene]methyl]-4-nitrobenzene, **blue**)

#### Detection Tickets

Detection tickets for nerve agents are used in a similar way. The ticket consists of two parts, one with enzyme-impregnated paper and the other with substrate-impregnated paper. When the package is broken and the enzyme paper wetted, the substrate part of the ticket is exposed to the test vapour by means of a pump.

Subsequently, the two parts are put together for two minutes. If the enzyme part of the ticket has turned a weak blue colour, nerve agent is not present in the air. The detection limit is 0.02-0.05 mg/m<sup>3</sup> depending on the number of strokes of the pump. The ticket can also be used without a pump (by waving it in the air) but this gives a slightly poorer sensitivity.

An example of the enzyme substrate reaction used in detection tickets for nerve agents can be seen below. Note that the blue change of colour requires an active enzyme - some form of cholinesterase. In the presence of nerve agents, the enzyme is inhibited and no change of colour occurs. Detection tickets of this kind cannot distinguish between the different nerve agents.

2,6-dichloroindophenylacetate (**red**) + cholinesterase produces 2,6-dichloroindophenol (**blue**)



## **CBRNE Terrorism Newsletter – Feb 2012**

### **Indian DRDO Develops Aerial Systems To Detect Nuclear Contamination Zones**

Source:[http://www.rttnews.com/1827312/drdo-develops-aerial-systems-to-detect-nuclear-contamination-zones.aspx?type=in&utm\\_source=google&utm\\_campaign=sitemap](http://www.rttnews.com/1827312/drdo-develops-aerial-systems-to-detect-nuclear-contamination-zones.aspx?type=in&utm_source=google&utm_campaign=sitemap)

To tackle possible chemical, biological, radiological and nuclear or CBRN emergencies, the research organisation Defence Research and Development Organisation or DRDO is developing an array of ground-based and unmanned aerial systems and equipment with zero human exposure to detect and map contamination zones in all geographical conditions, reports said, quoting Chief Controller-Life Sciences W. Selvamurthy. DRDO has an ongoing programme till 2014 to develop technologies to deal with CBRN emergencies.

"Under the unmanned aerial system category, we are developing sensors which can be fitted on to Nishant and Rustom Unmanned Aerial Vehicles (UAVs) to monitor radiological activities. Micro Aerial Vehicles (MAVs) are also being developed for effective deployment in more critical areas," he said.

DRDO already demonstrated its technology for the Armed Forces and the necessary modifications are being carried out in line with the user's requirement.

The vehicle- and building-mounted systems, BMP and track-based vehicles already been given to the services to detect all forms of CBRN emergencies, Selvamurthy said. The Gwalior-based DRDO lab, the Defence Research and Development Establishment (DRDE), is the nodal body for the project. Besides, 12 other centres were roped in for the development of other important systems.

The total cost of the project is Rs.285 crore in which, along with the technologies and contamination detection payloads, we are also developing other equipment such as sensors, clothing and safety measures for soldiers who will operate in these areas, he added.



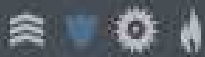


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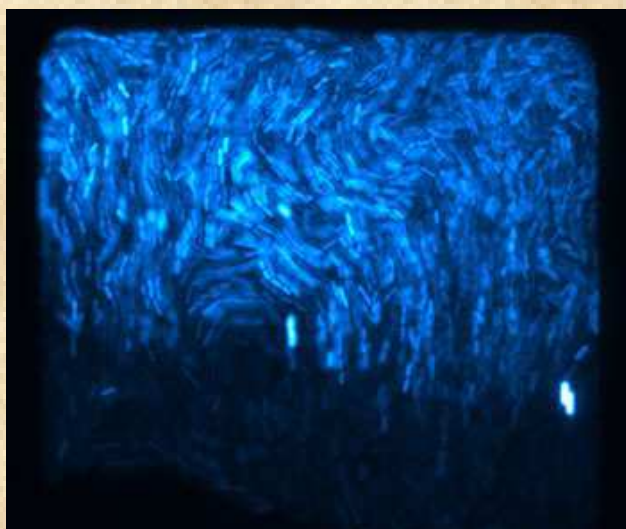
**AVON**  
PROTECTION



## Using bacteria to detect toxins in water

Source: <http://www.homelandsecuritynewswire.com/dr20111227-using-bacteria-to-detect-toxins-in-water>

Biologists and bioengineers at UC San Diego have created a living neon sign composed of millions of bacterial cells that periodically fluoresce in unison like blinking light bulbs; because bacteria are sensitive to many kinds of environmental pollutants and organisms, the



scientists believe this approach could be used to design low cost bacterial biosensors capable of detecting an array of heavy metal pollutants and disease-causing organisms

In an example of life imitating art, biologists and bioengineers at UC San Diego have created a living neon sign composed of millions of bacterial cells that periodically fluoresce in unison like blinking light bulbs.

Their research, detailed in this week's issue of the journal *Nature*, involved attaching a fluorescent protein to the biological clocks of the bacteria, synchronizing the clocks of the thousands of bacteria within a colony, then synchronizing thousands of the blinking bacterial colonies to glow on and off in unison.

A University of California-San Diego release reports that the flashing bacteria are not only a visual display of how researchers in the new field of synthetic biology can engineer living cells like machines, but will likely lead to some real-life applications.

Using the same method to create the flashing signs, the researchers engineered a simple bacterial sensor capable of detecting low levels of arsenic. In this biological sensor, decreases in the frequency of the oscillations of the cells' blinking pattern indicate the presence and amount of the arsenic poison.

Because bacteria are sensitive to many kinds of environmental pollutants and organisms, the scientists believe this approach could be also used to design low cost bacterial biosensors capable of detecting an array of heavy metal pollutants and disease-causing organisms. And because the sensor is composed of living organisms, it can respond to changes in the presence or amount of the toxins over time unlike many chemical sensors.

Thousands of fluorescent *E. coli* bacteria make up a biopixel.

"These kinds of living sensors are intriguing as they can serve to continuously monitor a given sample over long periods of time, whereas most detection kits are used for a one-time measurement," said Jeff Hasty, a professor of biology and bioengineering at UC San Diego who headed the research team in the university's Division of Biological Sciences and BioCircuits Institute. "Because the bacteria respond in different ways to different concentrations by varying the frequency of their blinking pattern, they can provide a continual update on how dangerous a toxin or pathogen is at any one time."

"This development illustrates how basic, quantitative knowledge of cellular circuitry can be applied to the new discipline of synthetic biology," said James Anderson, who oversees synthetic biology grants at the National Institutes of Health's National Institute of General Medical Sciences, which

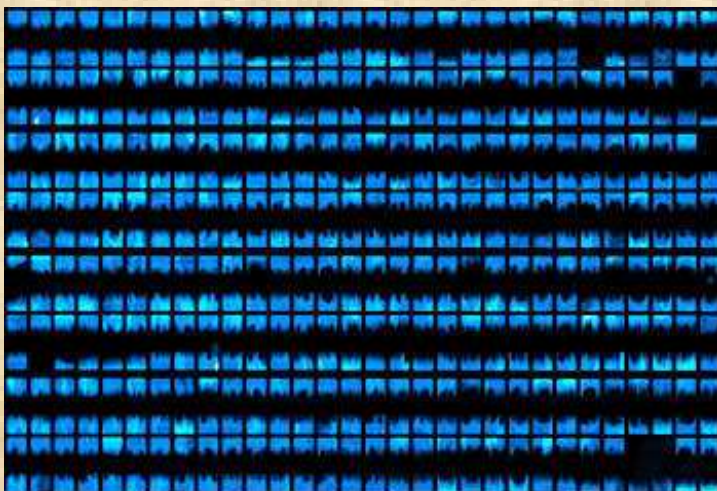




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partially funded the research. “By laying the foundation for the development of new devices for detecting harmful substances or pathogens, Dr. Hasty’s new sensor points the way toward translation of synthetic biology research into technology for improving human health.”

The release notes that the development of the techniques to make the sensor and the flashing display built on the work of scientists in the



Division of Biological Sciences and School of Engineering, which they published in two previous Nature papers over the past four years. In the first paper, the scientists demonstrated how they had developed a way to construct a robust and tunable biological clock to produce flashing, glowing bacteria. In the second paper, published in 2010, the researchers showed how they designed and constructed a network, based on a communication mechanism employed by bacteria, that enabled them to synchronize all of the biological clocks within a bacterial colony so that thousands of bacteria would blink on and off in unison.

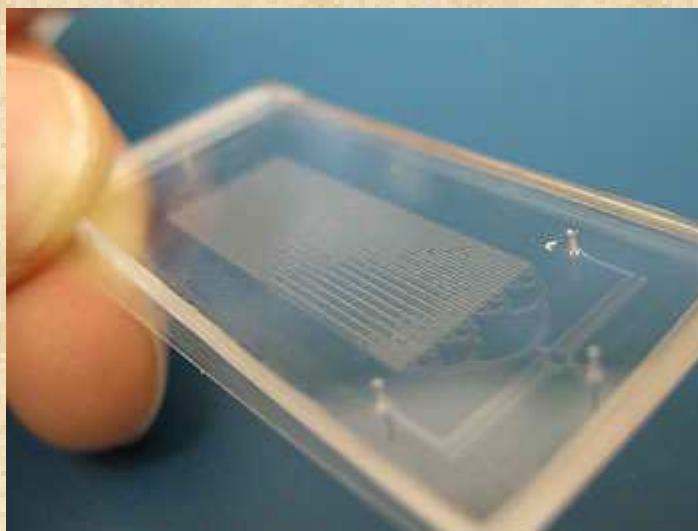
“Many bacteria species are known to communicate by a mechanism known as quorum sensing, that is, relaying between them small molecules to trigger and coordinate various behaviors,” said Hasty, explaining how the synchronization works within a bacterial colony. “Other bacteria are known to disrupt this communication mechanism by degrading these relay molecules.”

The researchers, however, found the same method could not be used to instantaneously

synchronize millions of bacteria from thousands of colonies.

“If you have a bunch of cells oscillating, the signal propagation time is too long to instantaneously synchronize 60 million other cells via quorum sensing,” said Hasty. But the scientists discovered that each of the colonies emit gases that, when shared among the thousands of other colonies within a specially designed microfluidic chip, can synchronize all of the millions of bacteria in the chip. “The colonies are synchronized via the gas signal, but the cells are synchronized via quorum sensing. The coupling is synergistic in the sense that the large, yet local, quorum communication is necessary to generate a large enough signal to drive the coupling via gas exchange,” added Hasty.

The smaller chips contain about 500 blinking bacterial colonies or biopixels



Graduate students Arthur Prindle, Phillip Samayoa and Ivan Razinkov designed the microfluidic chips, which for the largest ones, contain 50 to 60 million bacterial cells and are about the size of a paper clip or a microscope cover slip. The smaller microfluidic chips, which contain approximately 2.5 million cells, are about a tenth of the size of the larger chips.

Each of the blinking bacterial colonies comprise what the researchers call a “biopixel,” an individual point of light



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much like the pixels on a computer monitor or television screen. The larger microfluidic chips contain about 13,000 biopixels, while the smaller chips contain about 500 pixels.

Hasty said he believes that within five years, a small hand-held sensor could be developed that would take readings of the oscillations from the bacteria on disposable microfluidic chips to determine the presence and

concentrations of various toxic substances and disease-causing organisms in the field.

Other UC San Diego scientists involved in the discovery were Tal Danino and Lev Tsimring.

The release also notes that the UC San Diego Technology Transfer Office has filed a patent application on the Hasty group's invention. The University says that companies that have a commercial interest in the research or application should contact the office.

— *Read more in Arthur Prindle, "A sensing array of radically coupled genetic 'biopixels'," Nature (18 December 2011)*

### The Bioterrorist Next Door

By Laurie Garrett

Source: [http://www.foreignpolicy.com/articles/2011/12/14/the\\_bioterrorist\\_next\\_door?page=full](http://www.foreignpolicy.com/articles/2011/12/14/the_bioterrorist_next_door?page=full)

In September, an amiable Dutchman stepped up to the podium at a scientific meeting convened on the island of Malta and announced that he had created a form of influenza that could well be the deadliest contagious disease humanity has ever faced.

announced and whether it should ever be published.

Meanwhile, a joint Japanese-American research team led by the University of Wisconsin's Yoshihiro Kawaoka says that it, too, has manufactured a superflu. Additionally,



The bombshell announcement, by virologist Ron Fouchier of Erasmus Medical Center, sparked weeks of vigorous debate among the world's experts on bioterrorism, influenza, virology, and national security over whether the research should have been performed or

a team at the U.S. Centers for Disease Control and Prevention (CDC) in Atlanta has acknowledged doing similar research, without successfully making the über



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flu. The U.S. National Science Advisory Board for Biosecurity is now deliberating whether to censor publication of the Fouchier and Kawaoka papers, though it lacks any actual power to do so: It could so advise scientific journals, but editors would still decide. The advisory board is expected to release its decision on Dec. 15.

The interest in this brave new world of biology is not limited to the scientific community. U.S. Secretary of State Hillary Clinton made a surprise visit to Geneva on Dec. 7, addressing the Biological Weapons Convention review conference. The highest-ranking U.S. official to speak to the biological weapons group in decades, Clinton warned, "The emerging gene-synthesis industry is making genetic material widely available. This obviously has many benefits for research, but it could also potentially be used to assemble the components of a deadly organism."

"A crude but effective terrorist weapon can be made by using a small sample of any number of widely available pathogens, inexpensive equipment, and college-level chemistry and biology," Clinton also stated. "Less than a year ago, al Qaeda in the Arabian Peninsula made a call to arms for, and I quote, 'brothers with degrees in microbiology or chemistry to develop a weapon of mass destruction.'"

Noting that "It is not possible, in our opinion, to create a verification regime" for biological weapons compliance under the convention, Clinton called for voluntary transparency on biological experimentation among the 165 countries that have signed the agreement.

Officials throughout the U.S. government are declining to comment on the influenza experiments or elaborate on Clinton's comments and appearance in Geneva. The influenza scientists were politely but firmly instructed recently by U.S. officials to keep their mouths shut and provide no data or details regarding their experiments to anybody. Sources inside the Dutch, German, and French governments say that discreet agreement was reached among Western leaders to greet the influenza pronouncements with a wall of silence, pending the advisory board's decision and detailed analysis of the experiments by classified intelligence and scientific bodies.

Should we worry? If these scientists have indeed used the techniques that they have verbally described (but not yet published) to produce a highly contagious and virulent form

of the so-called "bird flu," the feat can at least theoretically be performed by lesser-skilled individuals with nefarious intentions. Perhaps more significantly, the evolutionary leaps might be made naturally, via flu-infected birds, pigs, even humans. In other words, the research has implications for both terrorism and a catastrophic pandemic. Moreover, several experimental antecedents involving smallpox-like viruses and polio lend credence to the idea that concocting or radically altering viruses to create more lethal or transmissible germs is becoming an easier feat and an accidental byproduct of legitimate research.

The advisory board is debating whether the work, as well as details on how the flu viruses were deliberately mutated, should be published. That is the wrong question. As a practical matter, experimental results are now shared with lightning speed between laboratories, and I know that several leading scientists outside Fouchier's and Kawaoka's labs already recognize exactly how these experiments were executed. The genie is out of the bottle: Eager graduate students in virology departments from Boston to Bangkok have convened journal-review debates reckoning exactly how these viral Frankenstein efforts were carried out.

The list of attempts by governments to stifle scientific information is lengthy and marked by failure. I was at a 1982 optical engineering meeting in San Diego that was disrupted by a censorship order handed down by the Ronald Reagan administration's security chief, Adm. Bobby Ray Inman, compelling seizure of about 100 papers. The administration claimed the findings in those mathematics papers would, in Soviet hands, pose an existential threat to the United States -- an assertion that proved laughable when the studies soon saw the light of day. In 2006, George W. Bush's administration tried to block climate change-related presentations by NASA scientist James Hansen; every single one of Hansen's data points swiftly appeared on the Internet.

Rather than trying to censor research because its inevitable release might be harmful, we ought to be having a frank, open discussion about its implications. The correct questions that scientists, national security and political leaders, and the public ought to be asking are: How difficult was it to perform



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these experiments? Could they be replicated in the hands of criminals or would-be terrorists? What have these experiments shown us about the likelihood that the H5N1 "bird flu" virus will naturally evolve into this terrifying form? Are we safer, or less secure, today due to the post-2001 anthrax-inspired proliferation of high-security biological laboratories?

### What Genie Has Popped from Which Bottle?

In 1997, the form of influenza now dubbed H5N1, or avian flu, emerged in Hong Kong, killing six people and forcing the destruction of every chicken in the protectorate. The virus had been circulating in aquatic migratory birds and domestic poultry flocks within mainland China for at least two years, but it was not recognized as a unique entity until the Hong Kong outbreak. The spread of H5N1 was temporarily halted by Hong Kong health official Margaret Chan, who ordered the mass culling of the area's poultry. Chan now serves as director general of the World Health Organization (WHO).

The virus reappeared in Thailand in 2003, killing flocks of chickens and ducks that November and infecting humans in January 2004 in Thailand and Vietnam. The H5N1 virus mutated in 2005 as it spread among various species of birds migrating through northern China, giving avian flu the capacity to infect a far greater range of bird species, as well as mammals -- including human beings. That year, human and animal outbreaks of H5N1 appeared across a vast expanse of the globe, from the southernmost Indonesian islands, up to central Siberia, and as far west as Germany. By mid-2011, H5N1 had become a seasonal occurrence in a swath of the world spanning 63 countries of Asia, the Pacific Islands, Eastern and Western Europe, the Middle East, and North and West Africa. Since its 2004 reappearance, H5N1 has sickened at least 565 people, killing 331, for an overall mortality rate of 59 percent. The Ebola virus can be more lethal -- as high as 90 percent -- but is not terribly contagious. Rabies, in the absence of vaccination, is 100 percent lethal, but it can only be transmitted through the bite of an animal. It is estimated that in pre-vaccine days, the smallpox virus killed about a third of the people it infected.

Only influenza holds the potential of both severe contagion and, in the case of H5N1, astounding mortality rates, ranging from about

35 percent in Egypt (where the virus circulates widely) to more than 80 percent in parts of Indonesia (where 178 confirmed cases have resulted in 146 deaths). The virulence of H5N1 is far higher than that seen with any other influenza, including the notorious 1918 flu that killed an estimated 62 million people in less than two years. (Some reckonings of 1918 death tolls in poor countries that lacked epidemic reporting systems, such as China, India, and all of Africa, put the final mortality at 100 million, when the world population was just 1.8 billion and commercial air travel did not exist.) Six years ago, the spread of H5N1 sparked concern in the Executive Office of the Secretary-General of the United Nations, the White House, and many of its counterpart centers of government worldwide. Tremendous efforts ensued to kill infected domestic poultry, rapidly identify outbreaks, and pool scientific resources to track and scrutinize various H5N1 strains as they emerged. Some 400 million domestic birds were killed between 2004 and 2010, at an estimated global cost of \$20 billion. It all seemed to work: By the end of 2008 the annual number of poultry outbreaks of H5N1 had shrunk from 4,000 down to 300.

In fearful anticipation, health and virus experts also watched for signs that the virus was spreading from one person to another. Although there were clusters of victims, infected families, and isolated person-to-person possible infections, the dreaded emergence of a form of humanly contagious H5N1 never occurred. By 2010, many leading virologists concluded that H5N1 was a terrifying germ -- *for birds*. The confident consensus, however, was that the mutations that avian flu would have to undergo to be able to spread easily from one human lung to another's were so complex as to approach evolutionary impossibility.

By mid-2011 the global response to avian flu had grown lethargic and complacent. Predictably, in the absence of vigilant bird-culling and vaccination efforts, trouble emerged as outbreaks mounted across Asia. Between January 2010 and the spring of 2011 more than 800 outbreaks were dutifully logged by government officials worldwide. In late July, a 4-year-old girl died of H5N1 in Cambodia, making her the seventh avian flu mortality in



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a country that had been free of the microbe for a long time.

On Aug. 29, the Food and Agriculture Organization sounded a mutation alarm, noting a new strain of the virus, dubbed H5N1-2.3.2.1, had surfaced in wild and domestic bird populations in Vietnam. Vietnam was one of six countries (including Bangladesh, Egypt, Indonesia, China, and India) in which avian flu had become *endemic*, meaning it permanently circulated among local and migratory birds. A week later, a Boston biotech company called Replikins announced the discovery of a mutant combination of the avian H5N1 flu and the so-called "swine flu" that spread swiftly among people during the 2009 global pandemic. Replikins's claim implied that the highly virulent bird flu could gain the capacity to spread rapidly between people by absorbing infection genes from the contagious-but-wimpy H1N1 swine influenza.

Although these announcements sparked a minor panic in Asia, further scrutiny of both the 2.3.2.1 and Replikins's claim left the WHO convinced that no new human threat loomed. In early September, a collective sigh of public-health relief was expelled.

Three days later, the conference of the European Scientists Fighting Influenza (ESWI, the Romance-language acronym) convened in Malta, opening with scientific evidence of current pandemic potentials. The stage was set by renowned University of Hong Kong flu scientist Malik Peiris, who described with exquisite precision which genetic factors made the "swine flu," H1N1, highly contagious between pigs, ferrets, humans, and other mammals. Peiris offered evidence that the 2009 H1N1 pandemic started among American pigs but had been circulating in swine populations throughout North America and China for decades before making the mutational steps that sparked global spread.

Fouchier, the Dutch scientist, who has tracked H5N1 avian flu outbreaks in Indonesia for years, then suggested that vaccines used for years on chicken farms are now failing. Perhaps under selective evolutionary pressure, forms of vaccine-resistant H5N1 have appeared, Fouchier told the Malta meeting, adding, "We discovered that only one to three substitutions are sufficient to cause large changes in antigenic drift." In other words, naturally occurring, infinitesimal changes in the

flu's genetic material are sufficient to render vaccines useless.

Fouchier went on to describe what he dubbed his "stupid" experiment of infecting ferrets in his lab sequentially with H5N1. One set of the animals would be infected, and then Fouchier would withdraw nasal fluid from the ferrets and use it to inoculation-infect a second set of animals. After 10 repeats, the superkiller H5N1 emerged, spreading through the air rapidly, killing 75 percent of the exposed animals. (Because Fouchier's work has not been published, accounts of the experiment vary, based on reporting from those who were present to hear his Malta speech. In some accounts the superlethal bird flu resulted from only five serial passages in ferrets -- a number far more likely to occur randomly in nature.)

"This virus is airborne and as efficiently transmitted as the seasonal virus," Fouchier told the Malta crowd, adding that he had identified which specific five mutations were necessary. Only five minute switches in RNA nucleotides -- the most basic elements of genetics -- were needed.

"This is very bad news, indeed," a sober Fouchier concluded.

The five dire mutations (technically, single nucleotide changes occurring inside two genes) have been separately found in influenza viruses circulating in the world. The actual mutations are not, therefore, unique. Fouchier's only innovation was in making all five occur inside the same virus at once. The more famous flu researcher from Erasmus, Albert Osterhaus, told reporters that what is done in the lab can happen in nature, adding, "Expect the unexpected.... *The mutations are out there, but they have not gotten together yet.*"

Under questioning in Malta, Fouchier said his ferret form of H5N1 would certainly spread among humans and is "one of the most dangerous viruses you can make."

Shortly after Fouchier's announcement, Kawaoka, the University of Wisconsin scientist, let it be known that he, too, has made an airborne-transmissible H5N1 that readily spreads among mammals. Kawaoka's efforts were jointly executed by teams he heads at the University of Wisconsin and the University of Tokyo. No further details regarding this effort are publicly available, though Kawaoka has submitted a paper detailing



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his techniques and discoveries for review by the U.S. National Science Advisory Board for Biosecurity, as has Fouchier. Both scientists wish to publish their work in major scientific journals.

Scientists are deeply divided regarding publication. "If I were a journal editor and I received an article that said how to make a bioweapon, I'd never publish it, but that would be based on self-regulation, not any government restriction," anthrax expert and retired Harvard University professor Matt Meselson told an interviewer. "I've never heard of a case where the government has restricted publication. I don't think it would work." But fellow anthrax researcher Paul Keim, who chairs the advisory board, told reporters, "I can't think of another pathogenic organism that is as scary as this one. I don't think anthrax is scary at all compared to this."

Perhaps the most intriguing comments came from Australian scientist Ian Ramshaw, who suggested that the Fouchier or Kawaoka papers could serve as bioterrorism blueprints: "As a researcher you do the good thing, but in the wrong hands it could be used for evil. In this case I'm not so worried about bioterrorism. It's the disgruntled researcher who is dangerous -- the rogue scientist," Ramshaw warned, according to the *Canberra Times*. Ten years ago Ramshaw accidentally made a superkiller form of mousepox, the rodent version of smallpox, in his Australian National University laboratory. He injected lab mice with the pox virus to test out a completely unrelated contraceptive vaccine, but the experiment transformed the virus into a deadly monster with a 100 percent fatality rate. In 2001 Ramshaw's work spurred high-level concern about the use of genetically modified smallpox by a rogue nation or terrorist group, launching the vigorous, multibillion-dollar post-9/11 American smallpox vaccine effort, as detailed in my new book, *I Heard the Sirens Scream*.

Within two years of Ramshaw's accidental mousepox creation, separate labs deliberately created viruses. In 2002, researchers at the State University of New York in Stony Brook built a polio virus from its genetic blueprint. This constituted a proof of principle, demonstrating that in a sufficiently skilled laboratory, all that is required to make a deadly

virus is its nucleotide sequence -- details of which are now routinely published for everything from anthrax to the Ebola virus. At the time, Eckard Wimmer, the lead scientist on the project, warned: "The world had better be prepared. This shows you can re-create a virus from written information."

The following year another scientific team deliberately mimicked Ramshaw's mousepox accident, not only with the rodent form of pox but also with pox viruses that infect rabbits and cows. And in 2005 the CDC famously joined fragments of RNA from thawed tissue of victims of the 1918 flu, re-creating the original superkiller.

### The Genie Is Out of the Bioterrorism and Pandemic Bottles: How Scared Should We Be?

This April, a team of CDC scientists published word that it had tried to manipulate H5N1 genes to render the avian virus a human-to-human spreader, but could not make it work. The team used a different method from the one apparently deployed by Fouchier and Kawaoka's team: The CDC group directly altered the genes of viruses, rather than sequentially infecting ferret after ferret. The CDC concluded, "An improvement in transmission efficiency was not observed with any of the mutants compared to the parental viruses, indicating that alternative molecular



changes are required for H5N1 viruses to fully adapt to humans and to acquire pandemic capability."

That seemed comforting. But in 2007 a different CDC team did to the SARS virus what Fouchier apparently has done to H5N1, with lethal



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results. Just as Fouchier produced highly infectious bird flu in ferrets by sequentially infecting one group of animals after another, the CDC group passed the SARS virus through one group of mice after another. Mice are normally harmlessly infected by SARS, which cannot cause disease in the rodents. But after 15 such passages, the team got a 100 percent fatal form of the virus. Moreover, it was an airborne killer, sniffed out the air. (SARS, or severe acute respiratory syndrome, killed more than 900 people worldwide in 2002 and 2003, mostly in China.)

The University of Minnesota's Michael Osterholm, an expert on both bioterrorism and pandemics, thinks that understanding how animals might pass a virus like SARS or H5N1 among themselves, in a fashion in nature that mimics the laboratory experiments, may hold a vital key to predicting future epidemics. "We don't want to give bad guys a road map on how to make bad bugs really bad," he recently told *Science* reporter Martin Enserink. Health experts, however, do applaud the controversial research because it shows which mutations are necessary and at least one way they might arise.

There is no way to put a number on the probability of such natural mutational events. Are the odds 50-50 that a deadly, contagious form of H5N1 will wreak havoc across the world in the next 10 years? Anybody who claims to answer such a question, or pooh-pooh the asking of it, is a fool or a charlatan. It is an unknown.

### What about the Proliferation of High-Security Biology Labs: Good or Dangerous?

Before the anthrax mailings terrorized America in 2001, there were only a handful of top security Biosafety Level 4 (BSL-4) labs in the world and a few dozen of the next-level BSL-3 facilities. The CDC and U.S. Army had the two largest pre-2001 BSL-4 labs, which nested like *matryoshka* dolls, with one layer of security inside another and another. The innermost labs required identity clearance, scientists wore protective space suits, and all air and water were specially cleansed and filtered to prevent accidental escape of Ebola, smallpox, and dozens of other superlethal organisms. The world's most dangerous known microbes were carefully kept under lock and key in a clearly identified handful of BSL-4 labs.

Even the less-secure BSL-3 labs required that scientists undergo security checks, wear spacesuits, and breathe through special respirators. Their numbers were finite and known, and researchers working on influenza, anthrax, or other deadly-but-treatable microbes represented a fairly small pool of scientists.

Since the 9/11 terrorist attacks, however, the number of such laboratories has proliferated spectacularly, not only inside the United States, but all over the world. In 2001 the United States had five "centers of excellence," as they were called, devoted to bioterrorism. By the end of 2002, more than 100 such centers were named, amid a record-breaking expansion in the numbers of laboratories and scientists studying anthrax, smallpox, Ebola, botulism, and every other germ somebody thought could be weaponized. After 9/11, the European Union saw the number of BSL-4 labs grow from six to 15. In the United States: from seven to 13. Canada built a BSL-4 complex in Winnipeg. Just as possession of rockets in the 1950s or nuclear power plants in the 1960s seemed the marks of a serious state power, so having BSL-3 and BSL-4 labs suddenly became a mark of national significance in the world -- an achievement to which countries should aspire. This year India opened its first BSL-4 facility, and it is rumored that Pakistan is now building one.

The proliferation of high-security labs means a great deal more than the mere construction of physical buildings. Where 10 years ago a finite pool of predominantly senior scientists toiled in such facilities, today thousands of graduate students, postdoctoral fellows, technicians, and senior researchers work in facilities stocked with humankind's worst microbial foes. Accidents have occurred with alarming regularity since the lab proliferation commenced, as I have detailed in my book. The facilities also constitute locations wherein individuals could theoretically execute experiments to produce supergerms without risking harm to themselves or others, regardless of whether the intent were noble, as appears to be the case for Fouchier and Kawaoka, or whether the intent were evil, as was the case with those responsible for the anthrax mailings.

Since 2005, several flu experiments conducted under BSL-3 conditions have raised



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eyebrows, as critics have charged the work should have been done inside the far more difficult but secure BSL-4 conditions. The original 1918 virus was "revived" from a long-frozen human body and grown inside a BSL-3 lab. Experiments were done on the 1918 virus in an effort to discover what genes made it so lethal. And the research that the CDC team, Fouchier, and Kawaoka performed on the H5N1 virus was all done in BSL-3 labs.

In September, when news of the Fouchier work started to appear in science magazines, Thomas Inglesby of the Center for Biosecurity at the University of Pittsburgh told *New Scientist*, "Small mistakes in biosafety could have terrible global consequences." His Pittsburgh colleague D.A. Henderson concurred: "The potential for escape of that virus is staggering."

According to the FBI, the culprit behind the 2001 anthrax mailings was Bruce Ivins, who worked in the U.S. Army's BSL-3 and BSL-4

labs in Maryland. Whether or not the FBI caught the right man -- a point of controversy among scientists -- it remains extraordinary that the response to what the agency calls "Amerithrax" is the creation of more such facilities in which more "Ivins" might toil.

The questions that arise from these H5N1 experiments have nothing to do with publication of the Fouchier and Kawaoka papers. We should be asking what we can do to ensure that such terrible man-made viruses never accidentally escape their laboratory confines or are deliberately released. And we should heed the question posed in the recently released Hollywood thriller *Contagion* when a Homeland Security character queries a CDC scientist:

"Is there any way someone could weaponize the bird flu? Is that what we're looking at?"

"Someone doesn't have to weaponize the bird flu," the CDC scientist responds, "The birds are doing that."

*Laurie Garrett is senior fellow for global health at the Council on Foreign Relations, recipient of the 1996 Pulitzer Prize for her coverage of the Ebola epidemic in what was then Zaire, and author of I Heard the Sirens Scream: How Americans Responded to the 9/11 and Anthrax Attacks.*

## An Outbreak of Anthrax Among Drug Users in Scotland, December 2009 to December 2010. A report on behalf of the National Anthrax Outbreak Control Team.

Source: <http://www.promedmail.org>

### Summary

#### Outbreak Characteristics

An outbreak of anthrax was identified starting in Glasgow in December 2009, when cases of serious soft tissue infection (SSTI) among drug users were confirmed as being due to infection with *Bacillus anthracis*, the 1st such outbreak formally recorded. A local outbreak investigation began, which became a national investigation in January 2010 coordinated by Health Protection Scotland (HPS), when cases were identified in multiple NHS board areas.

Cases were also investigated over the same period in England and Germany, with 5 anthrax cases confirmed in England and 2 in Germany.

### Key Conclusions

#### Outbreak Genesis

The outbreak was the largest single common source, non-occupational human anthrax outbreak recorded in the UK since systematic notification of non-occupational cases began in 1960 and was associated with the use of illicit heroin, which probably originated in Afghanistan or Pakistan.

#### Source of Anthrax Spores

The spores from which the anthrax organisms originated came from a single common source, probably a single infected animal or hide. The anthrax organisms were all identified as being of a single, novel anthrax strain not seen before in the UK or elsewhere but closely related to strains seen previously in goats in Turkey.

#### Heroin Contamination

The contamination of heroin with anthrax spores probably





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occurred as a result of contact between heroin and a source of spores somewhere in the drug distribution network close enough to the country of origin to enable heroin from a single contaminated batch to be imported by drug dealers to all of the countries where anthrax cases occurred (Scotland, England and Germany).

the more heavily affected areas, including their use of alcohol.

### Contaminated Heroin Exposure

Infection occurred mainly between December 2009 and March 2010, indicating that the peak exposure to contaminated heroin also occurred just before and during this period then remained in circulation within Scotland (and England) for almost a year. However, the possibility that anthrax-contaminated heroin had been imported to Scotland prior to December 2009 cannot be completely excluded only on the basis that no cases were detected earlier.

### Drug User History

Drug users with a longer history of heroin use appeared to be more at risk of infection, possibly associated with their increased likelihood of taking heroin by injection methods.

### Control Measures

Options for control measures to prevent infection among drug users were limited and relied on police action to reduce the amount of heroin in circulation and curtail heroin dealing, and public health action to advise drug users and others of the risks of continued heroin use. Other control options were considered but were assessed as being impractical.

### Advice to drug users

The NAOCT (National Anthrax Outbreak Control Team) issued advice to drug users not to take any heroin based on the evidence available at the time. Evidence from the subsequent retrospective case-control study suggests that there may have been an increased risk of infection associated with injecting heroin in particular. However, given the limitations of the study method, this evidence has to be interpreted with caution.

### Summary Conclusion

The epidemiological and microbiological evidence supports a conclusion that heroin was the vehicle for transmission of anthrax



# An Outbreak of Anthrax Among Drug Users in Scotland, December 2009 to December 2010

*A report on behalf of the National  
Anthrax Outbreak Control Team*

*December 2011*

### Distribution networks

Heroin users in the West of Scotland, especially Glasgow and Lanarkshire, and in Dundee were at increased risk of anthrax infection compared to others living in Lothian (Edinburgh), Grampian (Aberdeen), the Highlands and Islands, probably as a result of the differing distribution networks for illicit heroin in Scotland but possibly also related to unknown underlying factors associated with the general health status of heroin users living in



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spores to cases and that exposure was by a variety of routes, particularly by injection but also by smoking (inhalation). The mechanism for and the location of spore contamination are not known; however, genotyping evidence strongly suggests that infection was due to a single, novel, anthrax strain related to Trans-Eurasian (TEA) anthrax strains previously identified in goats in Turkey. This and other

intelligence on the heroin trafficking trade support a conclusion that the contaminated heroin imported to Scotland was from a single batch contaminated with anthrax spores via contact with a single infected animal or contaminated hide, somewhere in transit between Afghanistan/ Pakistan and Scotland, probably in Turkey.

**NOTE:** You can download full report from Newsletter's website – "CBRNE-CT Papers' section



### Fatal Avian Influenza (H5N1) Infection in Human, China

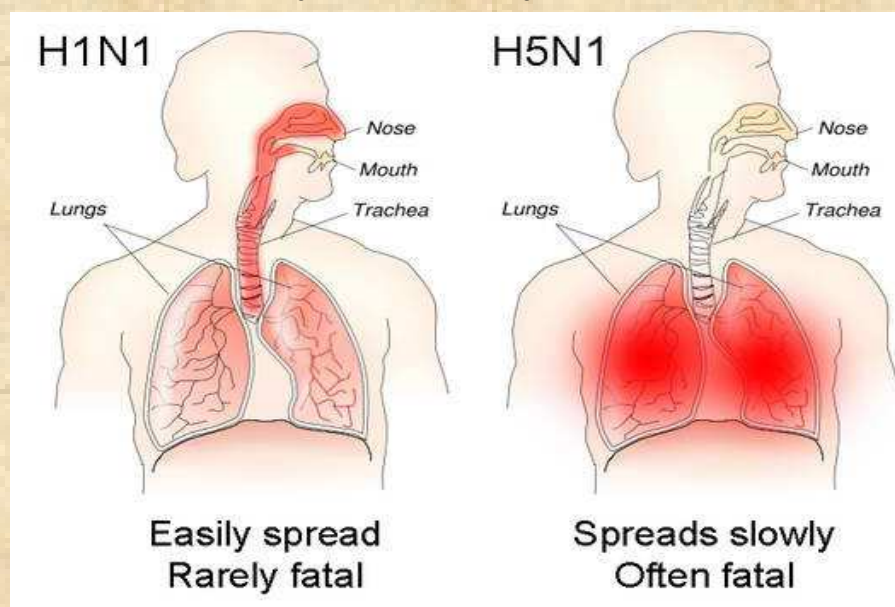
Source: [http://wwwnc.cdc.gov/eid/article/16/11/09-0212\\_article.htm](http://wwwnc.cdc.gov/eid/article/16/11/09-0212_article.htm)

**To the Editor:** Since the first avian influenza virus (H5N1) was isolated from a goose in the southern region of the People's Republic of China a decade ago (1), no poultry outbreak has been reported in Shandong Province in eastern China, although adjacent provinces have experienced an avian influenza epidemic (2). In fall 2008, several rounds of investigation of poultry farms and markets were conducted in Jinan, Shandong Province, and no influenza virus (H5N1) was isolated by reverse transcription-PCR (RT-PCR) from 19,340 poultry oropharyngeal, cloacal, and cage specimens.

However, a fatal influenza (H5N1) infection in a human was identified on January 17, 2009 (3). The patient was a 27-year-old woman from Jinan. Influenza-like illness (ILI) developed on January 5, and the patient received intravenous ribavirin and cephalosporins on January 9. On January 11, she was hospitalized for fever (41°C) and respiratory symptoms. On January 15, extensive infiltration in both lungs developed; the diagnosis was pneumonia of unknown etiology. Early on January 17, she underwent endotracheal intubation. She died of acute respiratory distress syndrome and multiple organ failure later that day.

Two endotracheal aspirates collected on January 17 were positive for influenza virus (H5N1) and for genes encoding matrix protein

by real-time PCR and RT-PCR. However, throat swabs collected on January 15 and 16 had been negative even after repeated testing (Table – end of text). The influenza virus (H5N1) was isolated on January 22 after 48-hour culture and named A/Shandong/1/2009(H5N1). Whole-genome sequencing showed that all segments were of



avian origin. The hemagglutinin gene and amino acid sequences of this virus were highly homologous with 24 strains of influenza virus (H5N1) isolated during 2005–2008 in China. There was no change in the hemagglutinin cleavage or the receptor binding sites or in the neuraminidase gene conferring oseltamivir resistance (4). Nevertheless,



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mutations in the matrix 2 gene indicated amantadine resistance (5).

The patient was a stay-at-home mother with a daughter 20 months of age. Her husband operated a barbecue food stand. The raw poultry ingredients (duck blood and chicken hearts) for the barbecue were washed and processed at home, and the patient may have had unprotected contact with raw poultry products. However, the patient did not raise poultry, did not have contact with sick or dead poultry, had not visited a poultry market recently, and had not consumed sick or dead poultry or raw poultry food. No influenza virus (H5N1) was detected by RT-PCR from the raw duck blood and chicken hearts saved in the patient's home refrigerator or at the poultry seller where the duck blood and chicken hearts originated. No influenza virus (H5N1) was detected by RT-PCR from 448 poultry oropharyngeal and cloacal specimens collected from the live poultry markets immediately after the virus was identified in the patient.

The patient's close contacts (157 persons), including family members and healthcare professionals, were isolated and monitored medically for 7 days according to the Chinese Center for Disease Control and Prevention guidelines, but without chemoprophylaxis because oseltamivir was unavailable. ILI did not develop in any of these persons, and all had negative results for immunoglobulin M against influenza (H5N1) virus. During January 17–23, all 9,865 clinic or hospital visitors with respiratory symptoms in the patient's residential region were interviewed; 829 had fever and 586 had ILI. All recovered quickly without treatment. Persons (537) with frequent exposure to poultry were monitored; ILI did not develop in any person.

This case was comparable to some other influenza (H5N1) infections in humans without identified sources of exposure (6,7). The virus for this case might have come from infected poultry products in the barbecue raw ingredients. Viremic blood from infected poultry can contaminate raw poultry products. It is also possible that blood was contaminated from

poultry struggling during blood collection. The shared kitchen for cooking and raw poultry product processing might be the place where viral transmission occurred. Although the patient had no direct contact with raw poultry products, the shared utensils might have acted as vectors for transmission. Consequently, Jinan enhanced public education to increase awareness of personal protection for persons with direct contact with poultry or poultry raw products and their family members.

The failure to use oseltamivir resulted from lack of alertness and preparedness by healthcare professionals for influenza (H5N1) infection because no human influenza (H5N1) infection had been reported in Shandong Province. The lack of a local oseltamivir reserve also precluded timely oseltamivir use. In response to this public health incident, Jinan enhanced education on self-protection, case management, empirical oseltamivir use, and emergency response to influenza by healthcare and public health professionals, in addition to building a local oseltamivir reserve. These efforts led to preparedness and timely treatment with oseltamivir during the second case of influenza pandemic (H1N1) 2009 infection in China on May 11, 2009 (8).

Because influenza viruses (H5N1) can replicate efficiently only in cells of the lower respiratory tract where the avian virus receptor is prevalent (9), it is better to collect lower respiratory tract specimens early for laboratory testing. Given that early oseltamivir administration is critical and most effective (10), oseltamivir should be administered quickly to patients with pneumonia of unknown etiology without waiting for laboratory confirmation of influenza infection.

Ji Zhang✉, Xingyi Geng, Yanhui Ma, Shiman Ruan, Shuhui Xu, Lanzheng Liu, Huaru Xu, Guoliang Yang, Chunrong Wang, Chong Liu, Xiuyun Han, Qiuyan Yu, Hongqi Cheng, and Zhan Li

Author affiliations: Jinan Municipal Center for Disease Control and Prevention, Jinan, People's Republic of China

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**Table**

Clinical specimens collected from patient with fatal avian influenza virus (H5N1) infection and test results, Shandong Province, China\*

| Specimen type         | Collection date, Jan 2009 | Place tested | Test method   | Result               |
|-----------------------|---------------------------|--------------|---------------|----------------------|
| Nasopharyngeal swab   | 15                        | Shandong CDC | RT-PCR        | A/H5HA/AN1 negative  |
| Nasopharyngeal swab   | 15                        | Shandong CDC | Real-time PCR | A/H5HA/H5NA negative |
| Nasopharyngeal swab   | 16                        | Shandong CDC | RT-PCR        | A/H5HA/AN1 negative  |
| Nasopharyngeal swab   | 16                        | Shandong CDC | Real-time PCR | A/H5HA/H5NA negative |
| Endotracheal aspirate | 17                        | Shandong CDC | RT-PCR        | A/H5HA/AN1 positive  |
| Endotracheal aspirate | 17                        | Shandong CDC | Real-time PCR | A/H5HA/H5NA positive |



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| Specimen type         | Collection date, Jan 2009 | Place tested | Test method   | Result               |
|-----------------------|---------------------------|--------------|---------------|----------------------|
| Endotracheal aspirate | 17                        | China CDC    | RT-PCR        | A/H5HA/AN1 positive  |
| Endotracheal aspirate | 17                        | China CDC    | Real-time PCR | A/H5HA/H5NA positive |

\*CDC, Center for Disease Control and Prevention; RT-PCR, reverse transcription–PCR.

### Should Medical Journals Print Info That Could Help Bioterrorists?

By Adam Cohen

Source: <http://ideas.time.com/2011/12/27/should-medical-journals-print-info-that-could-help-bioterrorists/>

Bird flu is deadly, but it generally does not spread easily from human to human. Now, scientists in Wisconsin and the Netherlands

It is a classic clash of liberty versus security. The question is such a difficult one because whichever course the government takes carries risks and costs. Which option — blocking publication or allowing it — is the lesser of two evils?

It is not hard to see why the government is seeking to keep details of the virus out of print. The H5N1 bird-flu virus rarely infects humans. But when it does cross the species barrier, the mortality rate can be as high as 60%. If terrorists were able to use the new research to make a contagious strain of the virus, the result could be a real-world version of the movie *Contagion*. That is: worldwide panic



have created a strain of bird flu that can spread through the air — a virus that could kill millions if terrorists managed to create a batch and weaponize it. This raises a thorny question: Should medical journals be allowed to print the details of how the virus is made?

A government advisory board has urged two scientific journals to omit some of the specifics about the virus — the first time it has issued such a request. Supporters insist that the board's request is a much-needed precaution that could save millions of lives. But critics say that the government is engaging in censorship and interfering with academic freedom.



and mass deaths. The government is trying to avoid this by urging scientific



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journals to describe the virus only in general terms and keep out the sort of details that could be used to replicate it. The National Science Advisory Board for Biosecurity, which was created after the deadly anthrax attacks of 2001, asked the journals *Science* and *Nature* to be selective when they published articles on the highly contagious strain of H5N1.

So what's the problem? Critics say the government is engaging in censorship by telling the media what it should and should not write about. It sets a terrible precedent, they argue, for the government to set itself up as a national-security censor. The next time, they say, the government will try to prevent the publication of information that is far less dangerous than contagious bird flu.

Press-freedom watchdogs have a point: the government often trots out national security to try to intimidate the press into not doing its job. A few years back, the *New York Times* was about to expose the NSA spying program, in which the government was intercepting emails and phone calls without getting court orders. President George W. Bush called the paper's top brass down to the White House and warned them that exposing the program would compromise national security. The *Times* went ahead and published — and we are all still here.

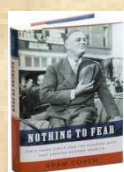
The skeptics raise another important concern: the long tradition of scientific openness. Research science works by having experiments reported publicly, so other scientists can test the findings — and build on them with their own research. This tradition breaks down when the government puts a shroud of secrecy on some research.

The editor of *Science* has suggested that his journal might agree to withhold the information the advisory board is worried about — provided that the government creates a system that

would allow legitimate scientists to access the full results.

That sounds like the right answer. We should be wary of government attempts to stop the media from publishing information. But in extreme cases, it may be necessary — and weaponizable highly contagious bird flu could be just such a case.

What factors should we be looking for in considering whether the government should try to stop publication? First, the threat of harm should be real and it should be truly extraordinary. That is a test the contagious strain of H5N1 seems to meet. Second, it should be clear that the government has no ulterior motives — that it is acting to protect the nation, not to advance a political agenda.



That can be a tough thing to evaluate — governments that use national-security arguments for political goals are quick to deny

that they are doing so. The best check on this sort of politicization is making sure that anyone who feels pressure from the government not to publish or speak is able to challenge the policy in court. Judges are in the best position to balance risks of serious harm against the infringement on speech — and to determine whether the government is crossing any First Amendment lines.

Those who oppose the Scientific Advisory Board's decision are right that we must be wary whenever the government tries to suppress speech. As Supreme Court Justice Potter Stewart said, censorship is "the hallmark of an authoritarian regime." But the board's defenders are right that ultimately the government has a duty to protect the public from the most serious threats. They can cite Supreme Court Justice Robert Jackson, who noted that the Constitution is not a suicide pact.

*Adam Cohen the author of Nothing to Fear: FDR's Inner Circle and the Hundred Days that Created Modern America, teaches at Yale Law School.*

### Bio-attack fears for England fans

Source: <http://www.express.co.uk/posts/view/292893/Bio-attack-fears-for-England-fans>

The England squad and thousands of fans travelling to see them in the Euro 2012 football

finals are under threat of a terrorist attack, according to intelligence sources.



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The tournament is being jointly hosted in Poland and Ukraine.

The latter's intelligence agency the SBU – formerly the KGB – has warned of “possible biological terror attacks in Ukraine and especially their threat on the eve of the European Football Championship 2012”.

The warning, reported by the Ukrainian News Agency, was revealed by a source in Ukraine's National Security and Defence Council which is drawing up preventative measures against - possible biological strikes involving the plague, cholera and TB.

England are to play all three group stages in the ex-Soviet state in June at Donetsk and the capital Kiev. A former deputy minister of health and adviser to the council Valerii Ivasyuk said: “The matter concerns - various bio-terrorist acts – plague, cholera and other possible things.”

He specifically warned about the risk of tuberculosis, which is, in any case, rife in Ukraine and has a “high probability” of infecting fans.

He said the council's chief Raisa Bohatyriova issued a warning to senior Kiev government ministers saying, “Indeed there are some threats.”

Bohatyriova said: “I feel an urgent need to inform the deputy prime minister Andriy Klyuyev about the high probability of infection of guests of Euro 2012 with resistant forms of TB,” and added that the disease in Ukraine “is on an African scale” with a rise in “incurable” strains.

Officially, 457,000 people in Ukraine suffer from TB but some experts insist the true figure is about a million. As many as 4,135 people died in 2010 and 3,613 in the first six months of 2011, a significant upward trend.

It is not the first time that the SBU has warned about the threat of terrorist strikes linked to Euro 2012.



The deputy chief of its anti-terrorism centre Volodymyr Orativskyy warned of the magnet of the “massive inflow of participants and fans, the presence of VIPs, especially public officials”.

He said: “Terrorists are attracted to such a great number of potential ‘targets’, easy access, a wide range of options for the perpetration of terror and an opportunity to receive the immediate and widest-possible publicity.”

He warned of the risk from “radical Islamist organisations” stressing that he has taken advice from the FBI and Nato. In a rare interview, he said: “There are supporters of terrorist and religious extremist organisations banned in some countries.

“There is a surge in migration from unstable countries. We have hazardous industrial and energy facilities and host diplomatic missions of countries actively involved in counter-terrorism.

“There is also an upsurge in extremism verging on terrorism in Ukraine.

“As we are approaching Euro 2012, new factors may emerge.”

Another government fear is that opposition groups could use the tournament as a focus for protest. On Friday, former Prime Minister Yulia Tymoshenko, leader of the Orange Revolution, was moved from Kiev to a remote jail.

## The difficulty in regulating life sciences articles in open journals – a balancing act

By Shannon M. Allan, Peter M. Leitner

Regional security and intelligence cooperation in the western Balkans and global asymmetric threats/ [authors Karen Laino et al.].Ljubljana: Defensor, 2011; pp.165-188.

### Abstract



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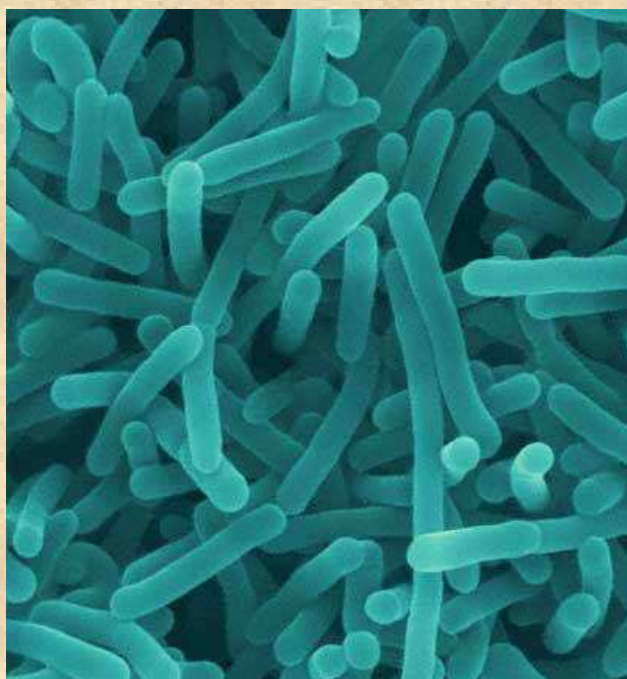
The debate over the prevention of biological weapons proliferation -- or to paraphrase it, the prevention of the misuse of biological science, has been ongoing for decades. The efficacy of efforts to control tangibles such as production equipment and deadly pathogens, as well as intangibles -- scientific information itself -- has long been the subject of intermittent discussion. This debate will soon intensify owing to the growing field of Synthetic Biology -- the combining of science and engineering to create new or modified organisms. The unexpected emergence of an ad hoc community of advanced hobbyists who are taking advantage of the increasingly affordable automated equipment in the marketplace and the availability of gene- or genome-length stretches of DNA from commercial gene synthesis companies is extraordinarily dangerous. While the information from life sciences research is subject to both benevolent and nefarious application we are now on the cusp of seeing the long held fear that dangerous third parties could potentially use open source publications, such as scientific journals, to develop biological materials into the long dreaded poor man's weapons of mass destruction. This article briefly discusses the complexity in justifying the regulation of information emanating from life sciences research and proposes criteria to identify potentially dangerous data.

**NOTE:** You can download the full paper at the Newsletter's website -- "CBRNE-CT Papers" section

### CU scientists advance research of lethal Listeria

By Stacey Shackford

Source: <http://www.news.cornell.edu/stories/Jan11/Listeria.html>



Listeria is an opportunistic pathogen that causes brain infection, blood poisoning, abortion and death for about 250 Americans and a number of farm animals each year. But while its harmful strains can be more lethal than Salmonella, it exists in benign species and strains as well.

By finding out why some forms are fatal and others are not, Cornell researchers are

developing more effective ways to detect and prevent food-borne illness.

When it comes to predicting whether strains of the bacterium will be harmful, Martin Wiedmann, associate professor of food science, has found that it is necessary to test for the presence of several genes, rather than just one.

Even among *Listeria monocytogenes*, which causes the vast majority of human disease cases, his team identified a strain that lacked one gene linked to the ability to cause disease.

In a paper published Dec. 2 in the journal *BMC Genomics*, Wiedmann also describes how the genus *Listeria* has evolved over the past 47 million years.

Unlike some other bacteria, *Listeria* strains actually appear to have become less virulent over time. While their common ancestor carried all genes needed to cause disease, many of the strains that emerged did not, and only two of the six *Listeria* species Wiedmann studied were found to have all the genes likely needed to cause human disease.

This may be because it is in the best interest of the





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bacteria that their hosts are kept alive, he said. Originating in soil and often traveling to animals through plant materials, *Listeria* bacteria thrive inside mammalian bodies, where there is limited competition for food. They can invade human cells and are able to move from one cell to the next, avoiding the antibodies we have floating around our bodies, Wiedmann said.

*Listeria monocytogenes* causes listeriosis, a rare but potentially lethal food-borne infection, with symptoms similar to meningitis. About 20 percent of people diagnosed with listeriosis die, compared to less than 1 percent of those inflicted by *Salmonella*.

*Listeria* has been found in animal silage, raw meats and vegetables, unpasteurized milk and different processed foods. Pasteurization and sufficient cooking typically kill *Listeria*, but contamination can occur after heating and before packaging, so extensive sanitation is required at processing plants, Wiedmann said.

"It has a canny ability to survive very, very well," Wiedmann said. "In one case, we found a strain that had survived in a processing plant for 12 years."

Wiedmann's team has helped control previous *Listeria* outbreaks by tracing the origin of contamination, thanks in part to a Web-based

pathogen tracker database they also developed. He also recently identified a unique strain of *Listeria monocytogenes* that was responsible for an outbreak among dairy cattle, with his findings detailed in a paper to be published in the *Journal of Veterinary Diagnostic Investigation*.

"We create the basic knowledge, which industry can then develop into practical applications," Wiedmann said.

Industry has already taken notice. Study collaborator Life Technologies Corp. is planning to use the information Wiedmann collected to develop assays that specifically detect pathogenic *Listeria* strains, according to bioinformatics scientist Craig Cummings.

His company developed The SOLiD System, an advanced, "next generation" sequencing instrument used in the study.

"This system allows us to discover the differences between large sets of bacterial strains in a relatively fast and affordable way," Cummings said.

Wiedmann's paper is the first published documentation of the equipment's use in this context and will likely establish a protocol for doing similar studies for other groups of pathogens, Cummings added.

*Stacey Shackford is a staff writer at the College of Agriculture and Life Sciences.*

### Thousands of deadly bracelets made from toxic plant recalled

Source: <http://www.homelandsecuritynewswire.com/dr20120106-thousands-of-deadly-bracelets-made-from-toxic-plant-recalled>

An urgent recall is underway after it was discovered that a bracelet sold in the United Kingdom was actually made from a highly toxic seed; the red and black bracelets were made with the Jequirity bean, the deadly seed from the **abrus precatorious plant** (right), which contains the **toxin abrin**.

[Necklace made from the highly toxic Jequirity bean found sold in the U.K. // Source: oliviaoscar.com](#)

An urgent recall is underway after it was discovered that a bracelet sold in the United Kingdom was actually made from a highly toxic seed.

The red and black bracelets were made with the Jequirity bean, the deadly seed from the *abrus precatorious* plant, which contains the toxin abrin.

Just three micrograms of the toxin, if ingested, is enough to be fatal. Abrin is a controlled substance under the Terrorism Act and related to ricin, but far deadlier.

In West Africa, the Jequirity bean is commonly used in jewelry and in the Obeah



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religion it is thought to ward off witchcraft. The bracelets were made by Rainstick Trading,



a Peruvian wholesaler, and sold to thirty-six retailers who are all urging consumers to immediately bag the bracelets, wash their hands, and avoid touching their eyes.

Eden Project, a shop in Cornwall, has sold more than 2,800 of the deadly bracelets over the span of a year and is offering refunds for customers.

"We've identified some of the seeds as potentially dangerous so we have withdrawn the bracelets from sale immediately," a spokesman for Rainstick Trading said. "We have been advised in an extreme case, if these seeds are chewed or ingested it is very dangerous and potentially lethal."

Symptoms include acute gastroenteritis with vomiting, diarrhea, shock, and kidney failure.

So far there have been three recorded cases of U.S. children dying after they swallowed a Jequirity bean as well as several instances of jewelry makers dying after jabbing their fingers with a needle used to bore through the seeds.

## Caution About a Bioterror Attack on the U.S. Milk Supply

Source: [http://www.gsb.stanford.edu/news/research/pubpolicy\\_wein\\_bioterror.shtml](http://www.gsb.stanford.edu/news/research/pubpolicy_wein_bioterror.shtml)

A mere 4 grams of botulinum toxin dropped into a milk production facility could cause serious illness and even death for 400,000 people in the United States. Investments that would cost the public only 1 cent more per half-gallon of milk could prevent this nightmare scenario, according to Lawrence M. Wein of the Stanford Graduate School of Business.

Wein, the Paul E. Holden Professor of Management Science, has been conducting a series of studies on the effects of various potential terrorist activities in United States. Not only milk, but soft drinks, fruit and vegetable juices, processed tomato products, and even grains—anything that goes through large-scale storage and production and rapid distribution—could be at risk for such an attack, with catastrophic consequences for the American public, Wein says in his most recent study, conducted with Yifan Liu, a PhD candidate at the Institute for Computational and Mathematical Engineering at Stanford University.



In the case of milk, says Wein, all it would take is for someone to obtain a suitable strain of botulinum toxin—the most poisonous substance known to humans—from an overseas black market lab, grow it in culture, and pour it into an unlocked milk tank or milk truck. From there, the contaminated milk would make its way into large processing silos, where it would poison at least 100,000 additional

gallons. Only a fraction of the toxin would remain active after pasteurization, but according to Wein's mathematical model, that could be enough to infect the approximately 400,000 people who would drink the milk. "Only 1 millionth of a gram is enough to poison an adult," says Wein, "and there would be more than that per person remaining in the

distributed milk to do the job." Wein and Liu's paper was published in the July 12 issue of the Proceedings of the National Academy of Sciences (PNAS)



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accompanied by an unusual editorial addressing some of the debate on scientific research vs. national security that has arisen since pre publication copies were circulated to a limited list of academics.

Based on their mathematical models of current distribution of milk, Wein and Liu estimate that within 48 hours of ingesting contaminated milk, consumers would begin to display symptoms. If authorities were able to notify the public within the subsequent 24 hours to stop drinking milk (an ambitious time period), the contamination could be reduced. However, of those eventually exposed, "about half would die," says Wein. The death toll would be high (as much as 50,000 he estimated), due to the current insufficient supply of ventilators and antitoxins in the U.S. medical system.

However, an ounce of prevention is worth a pound of poison, says Wein, who last September presented his findings on the case of bioterrorism and milk to the Assistant Secretary of Public Health Preparedness and several members of the Department of Homeland Security.

Wein calls for the FDA to make current volunteer safety guidelines mandatory, such as requiring that milk tanks and trucks be locked and that two people be present when milk is transferred from one stage of the supply chain to the next.

Before releasing milk into silos, milk-tank truck drivers should be required to employ a new 15-minute test that can detect the four types of toxins associated with human botulism. Drivers currently are required to wait for an antibiotic residue test and the toxin test could be conveniently accomplished at the same time. "A single set of tests can be performed on each 5,500 gallon truck at a cost to milk producers that would raise consumer prices only several cents a gallon," says Wein. "We the public

need to ask ourselves whether the elimination of this catastrophic threat is worth a one cent increase in the cost of a half-gallon of milk."

Changes made in voluntary pasteurization processes since the 9/11 terror attacks may mean that Wein and Liu's original calculations of the human toll should be lowered, said Wein. The PNAS editorial, signed by Bruce Alberts, president of the National Academy of Sciences (NAS), agreed but argued that the issues raised by the paper are still of value to both academics and security agencies. "There is everything to be gained by alerting the public and state governments to the dangers so they can help the federal government in its ongoing, highly laudatory attempts to reach 100 percent compliance" with pasteurization processes that will protect the milk supply.

The National Academy of Sciences has recommended that the paper become a case study for its newly-formed National Science Advisory Board, created in 2004 "to provide case-specific advice on oversight of research and the communication and dissemination of life sciences information that is relevant for national security and biodefense purposes." The committee is scheduled to hold its first meeting June 30.

Alberts' editorial said the scenario of contamination described in the paper did not create new information that would not already be known to anyone interested in collecting lethal doses of the toxin. "All the critical information in this article that could be useful to a terrorist—in particular the (lethal dose level) of botulinum toxin for humans, toxin heat sensitivity, the size of milk containers into which collections are pooled for pasteurization—are immediately accessible on the Web through a simple Google search," said the editorial.

### WHO: Botulism – Prevention

Source: <http://www.who.int/mediacentre/factsheets/fs270/en/>

Prevention of botulism is based on good food preparation (particularly preservation) practices and hygiene. Botulism may be prevented by inactivation of the bacterial spores in heat-sterilized, canned products or by inhibiting growth in all other products. Commercial heat pasteurization (vacuum packed pasteurized products, hot smoked products) may not be

sufficient to kill all spores and therefore safety of these products must be based on preventing growth and toxin production. Refrigeration temperatures combined with salt content and/or acidic conditions will prevent the growth or formation of toxin. If exposure



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to the toxin via an aerosol is suspected, in order to prevent additional exposure to the patient and health care providers, the clothing of the patient must be removed and stored in plastic bags until it can be washed with soap and water. The patient must shower thoroughly.

Food and water samples associated with suspect cases must be obtained immediately, stored in proper sealed containers, and sent to reference laboratories in order to help prevent further cases.

### Dangers of Milk And Dairy Products - The Facts

By Dave Rietz

Source: <http://www.rense.com/general26/milk.htm>

Cow's milk is allowed to have feces in it. This is a major source for bacteria. Milk is typically pasteurized more than once before it gets to your table... each time for only 15 seconds at 162 degrees Fahrenheit.

To sanitize water one is told to boil it (212 degrees F) for several minutes. That is a tremendous disparity, isn't it!

Keep in mind that at room temperature the number of bacteria in milk DOUBLE around every 20 minutes. No wonder milk turns rotten very quickly.

#### Pus

ONE cubic centimeter (cc) of commercial cow's milk is allowed to have up to 750,000

somatic cells (common name is "PUS") and 20,000 live bacteria... before it is kept off the market.

That amounts to a whopping 20 million live squiggly bacteria and up to 750 MILLION pus cells per liter (bit more than a quart).

1 cup = 236.5882cc 177,441,150 pus cells  
~ 4,731,600 bacteria

24 oz (3 glasses) = 532,323,450 pus cells  
~ 14,220,000 bacteria

(the "recommended" daily intake)

The EU and the Canadians allow for a less "tasty" 400,000,000 pus cells per liter.

Typically these levels are lower... but they COULD reach these levels and still get to YOUR table.

*Dave Rietz is Webmaster of [www.notmilk.com](http://www.notmilk.com)*

### Got Milk Microbes?

A Guide to Milk-borne Infectious Diseases

Source: <http://infectiousdiseases.about.com/od/g/a/milkborne.htm>

#### Infectious Microbes Found in Cow's Milk

- **Bacillus cereus:** These bacteria produce a toxin that can cause diarrhea and another that causes vomiting. *Bacillus cereus* spores are heat-resistant and may survive pasteurization. There have even been very rare cases linked to dried milk and dried infant formula.
- **Brucella:** *Brucella* is a bacterial microbe that is found in unpasteurized dairy products. *Brucella* infection, or Brucellosis, has also been called "Undulant Fever" because of the regular recurrence of fever associated with the disease.
- **Campylobacter jejuni:** *Campylobacter jejuni* is the most common bacteria to cause diarrheal disease in the U.S. and is found in raw milk and poultry. It has an increased chance of causing disease when consumed in milk, because the basic pH of milk neutralizes the acidity of the stomach.
- **Coxiella burnetii:** *Coxiella* infects a variety of animals, including livestock and



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- pets. The microbe can be found in cow's milk and is resistant to heat and drying. Infection by *Coxiella* results in Q fever, a high fever that may last up to 2 weeks.
- ***E. coli* O157:H7**: This particular strain of *E. coli* has been associated with a number of food-borne outbreaks and is the cause of bloody diarrhea. Frequently associated with dairy cattle, microbial contamination of raw milk and soft cheeses can result in disease.
  - ***Listeria monocytogenes***: *Listeria* is a common bacterial pathogen that is found in soft cheeses and unpasteurized milk. It can even survive below freezing temperatures and can therefore withstand refrigeration. It is particularly dangerous to individuals who have weakened immune systems, including pregnant women, AIDS patients, and the very young and very old.
  - ***Mycobacterium avium* subspecies paratuberculosis**: This strain of mycobacteria can withstand pasteurization and has been associated with the development of Crohn's disease, also known as inflammatory bowel syndrome. However, whether or not these bacteria can actually infect humans remains controversial.
  - ***Mycobacterium tuberculosis***: The cause of "consumption," a horrific wasting disease that first affects the lungs, *Mycobacterium bovis* is associated with consumption of raw milk and was one of the most common contaminants prior to the practice of pasteurization. *M. bovis* causes tuberculosis in cows and can be passed to humans via unpasteurized cow's milk, causing a disease that is very similar to *M. tuberculosis*.
  - ***Salmonella***: *Salmonella* contamination of raw milk and milk products has been the source of several outbreaks in recent years. Symptoms include diarrhea and high fever.
  - ***Staphylococcus aureus***: *Staph aureus* produces a toxin that causes explosive vomiting. The disease may be considered a consequence of actual food poisoning from simply consuming the toxin, rather than from an actual infection.
  - ***Yersinia enterocolitica***: Associated with raw milk and ice cream, among other foods, contamination is believed to be a consequence of a breakdown in sanitization and sterilization techniques at dairy processing facilities.

### The case of botulinum toxin in milk: experimental data

Oliver G Weingart, Tanja Schreiber, Conny Mascher, Diana Pauly, Martin B Dorner, Thomas F H Berger, Charlotte Egger, Frank Gessler, Martin J Loessner, Marc-Andre Avondet, Brigitte G Dorner

*Applied and Environmental Microbiology* (2010)

Volume: 76, Issue: 10, Publisher: American Society for Microbiology (ASM), Pages: 3293-3300

#### Abstract

Botulinum neurotoxin (BoNT) is the most toxic substance known to man and the causative agent of botulism. Due to its high toxicity and the availability of the producing organism *Clostridium botulinum*, BoNT is regarded as a potential biological warfare agent. Because of the mild pasteurization process, as well as rapid product distribution and consumption, the milk supply chain has long been considered a potential target of a bioterrorist attack. Since, to our knowledge, no empirical data on the inactivation of BoNT in milk during pasteurization are available at this time, we investigated the activities of BoNT type A (BoNT/A) and BoNT/B, as well as their respective complexes, during a laboratory-scale pasteurization process. When we monitored milk alkaline phosphatase activity, which is an industry-accepted



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parameter of successfully completed pasteurization, our method proved comparable to the industrial process. After heating raw milk spiked with a set amount of BoNT/A or BoNT/B or one of their respective complexes, the structural integrity of the toxin was determined by enzyme-linked immunosorbent assay (ELISA) and its functional activity by mouse bioassay. We demonstrated that standard pasteurization at 72C for 15 s inactivates at least 99.99% of BoNT/A and BoNT/B and at least 99.5% of their respective complexes. Our results suggest that if BoNTs or their complexes were deliberately released into the milk supply chain, standard pasteurization conditions would reduce their activity much more dramatically than originally anticipated and thus lower the threat level of the widely discussed BoNT in milk scenario.

### Analyzing a bioterror attack on the food supply: The case of botulinum toxin in milk

Lawrence M Wein, Yifan Liu

*Proceedings of the National Academy of Sciences of the United States of America* (2005)

Volume: 102, Issue: 28, Publisher: National Academy of Sciences, Pages: 9984-9989

#### Abstract

We developed a mathematical model of a cows-to-consumers supply chain associated with a single milk-processing facility that is the victim of a deliberate release of botulinum toxin. Because centralized storage and processing lead to substantial dilution of the toxin, a minimum amount of toxin is required for the release to do damage. Irreducible uncertainties regarding the dose-response curve prevent us from quantifying the minimum effective release. However, if terrorists can obtain enough toxin, and this may well be possible, then rapid distribution and consumption result in several hundred thousand poisoned individuals if detection from early symptomatics is not timely. Timely and specific in-process testing has the potential to eliminate the threat of this scenario at a cost of <1 cent per gallon and should be pursued aggressively. Investigation of improving the toxin inactivation rate of heat pasteurization without sacrificing taste or nutrition is warranted.

### Analyzing a bioterror attack on the food supply: The case of botulinum toxin in milk

Lawrence M. Wein (Graduate School of Business) and Yifan Liu (Institute for Computational and Mathematical Engineering, Stanford University, Stanford – Edited by Barry R. Bloom, Harvard

#### Abstract

We developed a mathematical model of a cows-to-consumers supply chain associated with a single milk-processing facility that is the victim of a deliberate release of botulinum toxin. Because centralized storage and processing lead to substantial dilution of the toxin, a minimum amount of toxin is required for the release to do damage. Irreducible uncertainties regarding the dose-response curve prevent us from quantifying the minimum effective release. However, if terrorists can obtain enough toxin, and this may well be possible, then rapid distribution and consumption result in several hundred

thousand poisoned individuals if detection from early symptomatics is not timely. Timely and specific in-process testing has the potential to eliminate the threat of this scenario at a cost of <1 cent per gallon and should be pursued aggressively. Investigation of improving the toxin inactivation rate of heat pasteurization without sacrificing taste or nutrition is warranted.

#### Conclusion

In closing, it is important to stress that several elements of the model contain enough irreducible



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uncertainty to preclude estimating the impact of an attack to within several orders of magnitude. First and foremost is the dose–response curve. The paucity of human data makes an estimate of the ID a difficult task, and a reliable estimate of the probit slope is impossible. The ID values used here are not close to the worst-case estimate, due to the possibility that several sub-lethal (injected or oral) doses collectively containing 1–10% of the LD50 may be lethal, as in guinea pigs, rabbits, and mice (25). There are also three aspects of the model that have not been discussed in the open literature, although presumably studies can and perhaps have been performed: the inactivation rate attained by pasteurization, the specificity of an ELISA test in milk, and the release size that a terrorist organization is capable of. Such studies would allow our results to be sharpened considerably. The dose–response

curve, pasteurization inactivation rate, and terrorists' release size capabilities each contain several orders of magnitude of uncertainty, and together they essentially determine the release threshold required to achieve a sufficiently high milk concentration. There is much less uncertainty about how many people would drink this contaminated milk. There is irreducible uncertainty due to the timing of the release within the silo operation cycle, which causes the number poisoned to be roughly uniformly distributed between half and twice the mean values (with an additional point mass at the latter value with probability 0.26) reported in Figs. 2 and 3. Taken together, we have a reasonably accurate estimate of the

number of people who could be poisoned but a very poor estimate of how much toxin is required to cause a large outbreak. The main uncertainties related to the number of people who could be poisoned are how quickly the attack would be detected via early symptomatics and how quickly and completely consumption would be halted: we optimistically assumed that consumption is halted instantaneously and completely within 24 h after the early symptomatics are detected, even though it took several weeks to identify the source of the two large but more subtle Salmonella outbreaks in the dairy industry. Even if the reducible uncertainty resolves itself favorably (e.g., heat pasteurization inactivates 99% of toxin rather than 68.4%), a catastrophic event is not implausible, and the way forward seems clear: invest in prevention, investigate inactivation processes that do not affect nutrition or taste and, most importantly, develop and deploy a sub-45-min highly specific in-process test. Although the U.S. government appears to be working diligently on the latter two issues, it is not clear how quickly and thoroughly the dairy supply chain is being secured. The use of voluntary Food and Drug Administration guidelines is not commensurate with the severity of this threat, and the government needs to act much more decisively to safeguard its citizens from such an attack. Moreover, although the dairy industry is an obvious target, the government needs to force other food processing industries to quickly assess the impact of a deliberate botulinum release in their supply chains and to do what is necessary to prevent and mitigate such an event.



Table 2. Sensitivity analysis for 10 parameters in the no-testing case

| Case description                               | Release size          |                      |                   |                   |                   |
|--|-----------------------|----------------------|-------------------|-------------------|-------------------|
|  | 0.1 g                 | 1 g                  | 10 g              | 100 g             | 1 kg              |
| Base case                                      | $1.7 \times 10^3$     | $3.2 \times 10^4$    | $1.2 \times 10^5$ | $1.6 \times 10^5$ | $1.7 \times 10^5$ |
| Time between silo cleanings = 48 hr            | $2.0 \times 10^3$     | $3.5 \times 10^4$    | $1.2 \times 10^5$ | $1.5 \times 10^5$ | $1.5 \times 10^5$ |
| Silo size = 100,000 gallons                    | $2.1 \times 10^3$     | $3.2 \times 10^4$    | $1.6 \times 10^5$ | $2.7 \times 10^5$ | $3.0 \times 10^5$ |
| Silos per processing line = 4                  | $4.4 \times 10^3$     | $2.7 \times 10^4$    | $1.9 \times 10^5$ | $4.5 \times 10^5$ | $5.3 \times 10^5$ |
| Inactivation by pasteurization = 0.99          | $6.6 \times 10^{-11}$ | 5.0                  | $1.3 \times 10^4$ | $7.3 \times 10^4$ | $1.5 \times 10^5$ |
| Distribution: 90% purchased = 24 hr            | $2.0 \times 10^3$     | $4.5 \times 10^4$    | $1.8 \times 10^5$ | $2.4 \times 10^5$ | $2.6 \times 10^5$ |
| Time to consume a gallon = 24 hr               | $1.9 \times 10^3$     | $6.2 \times 10^4$    | $1.5 \times 10^5$ | $1.7 \times 10^5$ | $1.7 \times 10^5$ |
| ID <sub>50</sub> (adult, child) = 70 µg, 30 µg | $1.8 \times 10^{-18}$ | $6.7 \times 10^{-3}$ | $4.3 \times 10^3$ | $4.2 \times 10^4$ | $1.3 \times 10^5$ |
| Median child incubation = 12 hr                | $6.4 \times 10^2$     | $7.5 \times 10^3$    | $3.4 \times 10^4$ | $5.6 \times 10^4$ | $6.0 \times 10^4$ |
| Symptomatics until detection = 10              | $1.1 \times 10^3$     | $2.0 \times 10^4$    | $8.4 \times 10^4$ | $1.2 \times 10^5$ | $1.2 \times 10^5$ |
| Milkborne detection time = 12 hr               | $1.5 \times 10^3$     | $2.0 \times 10^4$    | $6.9 \times 10^4$ | $9.3 \times 10^4$ | $9.6 \times 10^4$ |

Each change from the base-case value in Table 1 was made in isolation and shown are the mean number of poisoned people computed for five different release sizes.

Table 3. Sensitivity analysis for five parameters in the no-detection case

| Case description                               | Release size          |                      |                   |                   |                   |
|--|-----------------------|----------------------|-------------------|-------------------|-------------------|
|  | 0.1 g                 | 1 g                  | 10 g              | 100 g             | 1 kg              |
| Base case                                      | $2.3 \times 10^3$     | $1.5 \times 10^3$    | $5.0 \times 10^3$ | $5.7 \times 10^3$ | $5.7 \times 10^3$ |
| Time between silo cleanings = 48 hr            | $2.8 \times 10^3$     | $1.6 \times 10^3$    | $3.8 \times 10^3$ | $3.9 \times 10^3$ | $3.9 \times 10^3$ |
| Silo size = 100,000 gallons                    | $2.1 \times 10^2$     | $1.4 \times 10^3$    | $8.4 \times 10^3$ | $1.1 \times 10^4$ | $1.1 \times 10^4$ |
| Silos per processing line = 4                  | $4.4 \times 10^3$     | $1.1 \times 10^3$    | $1.2 \times 10^3$ | $2.2 \times 10^3$ | $2.2 \times 10^3$ |
| Inactivation by pasteurization = 0.99          | $6.6 \times 10^{-11}$ | 5.0                  | $3.8 \times 10^4$ | $3.6 \times 10^5$ | $5.7 \times 10^5$ |
| ID <sub>50</sub> (adult, child) = 70 µg, 30 µg | $1.8 \times 10^{-18}$ | $6.7 \times 10^{-3}$ | $7.5 \times 10^3$ | $2.1 \times 10^3$ | $5.3 \times 10^3$ |

Each change from the base-case value in Table 1 was made in isolation, and the mean number of poisoned people was computed for four different release sizes.

**NOTE:** You can download full paper from Newsletter's website – "CBRNE-CT Papers" section

### Chicago's new bio-attack response facility

Source: <http://www.homelandsecuritynewswire.com/dr20120109-chicagos-new-bioattack-response-facility>

Chicago is preparing itself for a biological attack with the recent unveiling of a new 40,000 square-foot, fourteen story state-of-the-art medical decontamination facility.

Last Friday the Robert R. McCormick Foundation Center for Advanced Emergency Response at the Rush University Medical Center opened its doors for the first time.

The new facility is fully equipped to handle a sudden influx of patients from a biological attack or other mass casualty incident. To help prevent the spread of infectious agents, the facility includes a series of interconnected pods that can be isolated. These pods contain their own decontamination showers and large storage tanks to collect contaminated water run-off from patients. "The center brings an unprecedented level of preparedness to

Chicago in the event of a bioterrorist attack, a deadly pandemic or an industrial accident sending hazardous materials seeping into the streets," said Dino Rumoro, the Rush University's chairman of emergency medicine. Rumoro added that the facility is unique to the United States.

He explained, "The concept of the new emergency room is not that novel, but putting together all the key elements of this center is novel. In an event of an emergency, we will closely coordinate all of our work with neighboring institutions and the city's office of emergency management and communications."







Rush University Medical Center, home of the rapid bioattack response center // Source: skyscraperpage.com

When not in use during a major attack, the new facility will function as a traditional emergency room with sixty treatment bays and a surge capacity of 133 percent.

“Since we are committed to providing unprecedented disaster response and due to our affiliation with the military, being able to conduct coordinated large-scale decontamination inside and outside the hospital is a major public health responsibility,” Rumoro said.

The Rush bio-decontamination facility was made possible thanks to a \$7.5 million grant from the Robert R. McCormick Foundation along with grants from the Department of Defense and the Department of Energy.

## Google Flu Trends: Correlation With Emergency Department Influenza Rates and Crowding Metrics

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<sup>2</sup>Department of Medicine, Division of Infectious Disease, Johns Hopkins University, Baltimore, Maryland

<sup>3</sup>Department of Emergency Medicine

<sup>4</sup>Department of Health Policy, George Washington University, Washington, D.C

### Abstract

**Background.** Google Flu Trends (GFT) is a novel Internet-based influenza surveillance system that uses search engine query data to estimate influenza activity and is available in near real time. This study assesses the temporal correlation of city GFT data to cases of influenza and standard crowding indices from an inner-city emergency department (ED).

**Methods.** This study was performed during a 21-month period (from January 2009 through October 2010) at an urban academic hospital with physically and administratively separate adult and pediatric EDs. We collected weekly data from GFT for Baltimore, Maryland; ED Centers for Disease Control and Prevention–reported standardized influenza-like illness (ILI) data; laboratory-confirmed influenza data; and ED crowding indices (patient volume, number of patients who left without being seen, waiting room time, and length of stay for admitted and discharged patients). Pediatric and adult data were analyzed separately using cross-correlation with GFT.

**Results.** GFT correlated with both number of positive influenza test results (adult ED,  $r = 0.876$ ; pediatric ED,  $r = 0.718$ ) and number of ED patients presenting with ILI (adult ED,  $r = 0.885$ ; pediatric ED,  $r = 0.652$ ). Pediatric but not adult crowding measures, such as total ED volume ( $r = 0.649$ ) and leaving without being seen ( $r = 0.641$ ), also had good correlation with GFT. Adult crowding measures for low-acuity patients, such as waiting room time ( $r = 0.421$ ) and length of stay for discharged patients ( $r = 0.548$ ), had moderate correlation with GFT.

**Conclusions.** City-level GFT shows strong correlation with influenza cases and ED ILI visits, validating its use as an ED surveillance tool. GFT correlated with several pediatric ED crowding measures and those for low-acuity adult patients.



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### Link found between PTSD, respiratory illnesses in 9/11 responders

Source: <http://www.homelandsecuritynewswire.com/dr20120113-link-found-between-ptsd-respiratory-illnesses-in-9-11-responders>

A new study finds that there are links between respiratory illnesses and post-traumatic stress disorder (PTSD) in 9/11 first responders.

The study, led by Dr. Benjamin Luft, the Medical Director of Stony Brook's World Trade



Center Health Program and Dr. Evelyn Bromet, a professor in behavioral science and preventative medicine at Stony Brook, examined thousands of 9/11 first responders who were exposed to both horrendous mental trauma and dangerous airborne toxins from the smoldering wreckage of the World Trade Center (WTC).

According to Dr. Luft, their research indicates that mental illnesses could be a possible factor in the development of physical symptoms for 9/11 responders.

"This study illustrates the integral relationship between mental health and physical diseases that WTC responders suffer," Dr. Luft explained. "The analysis not only shows that relationship but also connects PTSD as a possible co-factor in responders' diseases, which reinforces our view at Stony Brook's WTC Health Program that the illnesses suffered by 9/11 responders are a compilation of problems that often present as an entire syndrome of diseases and conditions."

The researchers examined more than 8,500 traditional first responders like police and fire fighters along with more than 12,000 non-traditional responders including maintenance and transportation workers. After carefully

examining the patients over a six year period, Dr. Luft and his team found a clear pattern between 9/11 responders, PTSD, and respiratory symptoms.

Dr. Luft believes this linkage may suggest that PTSD could play a critical role in the relationship between exposure and symptoms.

As evidence, not only were PTSD rates lower among traditional responders than non-traditional responders, but also their likelihood of suffering from respiratory illnesses. 5.9 percent of traditional responders suffered from PTSD compared to 23 percent of non-traditional responders, while 22.5 percent of traditional responders showed respiratory symptoms compared to 28.4 percent of non-traditional responders.

In examining the results, Dr. Bromet noted, "The results are indicative that PTSD appears to have a major and complex role in relation to respiratory illnesses in this patient population. Our findings mirror research results found in several veterans' populations and in patients in primary care settings around the world."

Dr. Bromet went on to say, "Mental and physical health are integrally linked. It is not always obvious which one is the driver, but in the end, what matters is that both mental and physical health are recognized and treated with equal care and respect."

Moving forward Dr. Bromet and Luft said the study highlights the need for mental health examinations for all 9/11 first responders in addition to checking for respiratory symptoms.

In addition, non-traditional responders who worked at Ground Zero should be given access to preventative programs as they seem to suffer from higher rates of PTSD compared to traditional responders.

"The results are a first step in nailing down the exact relationship between PTSD and respiratory illness. We need to continue to study the relationship and its implications to help us to better treat responders who suffer from multiple mental and physical conditions," Dr.

Luft concluded.



## **United Kingdom Stockpiling Anthrax Vaccine Doses Ahead of Olympics**

Source:<http://www.nti.rsvp1.com/gsn/article/uk-stockpiling-anthrax-vaccines-ahead-olympics/?mgh=http%3A%2F%2Fwww.nti.org&mgf=1>

The United Kingdom is stockpiling anthrax vaccine doses to prepare for the threat of a bioterrorism strike using the lethal bacteria at this summer's Olympic Games, the *London Evening Standard* reported on Wednesday.

London intends to have met its vaccine acquisition goal by April. Schedule overruns from October 2009 to March 2011 had slowed the government's effort to acquire the desired quantity of vaccine doses.

More than 500 British medical personnel including doctors, nurses, paramedics and health researchers have been inoculated against smallpox to ensure there is a prepared health response team to go into action in the event the London games face a threat involving the virus, according to previous reporting. Biological preparedness is part of a broad

security program for the Olympics, scheduled from July 17 to Aug. 12 in the British capital.

The United Kingdom's elite military units will also be on standby to deploy rapidly in the event extremists seek to mount a strike similar to the 2008 terrorist assault on the Indian city of Mumbai. The British Special Air Service and Special Boat Service could also be called in to fly compact fighter helicopters into small areas, the newspaper reported.

Government marksmen stationed in helicopters are to fly above competition sites while the country's largest amphibious assault ship would be stationed in waters near Greenwich. Additionally, Royal Air Force fighter jets are to be redeployed to a military base in west London for the entirety of the games (Nicholas Cecil, *London Evening Standard*, Jan. 11).

## **U.K. Administers Smallpox Vaccine to Medical Personnel for Bioterror Response**

Source:<http://www.nti.rsvp1.com/gsn/article/uk-administers-smallpox-vaccine-medical-personnel/?mgh=http%3A%2F%2Fwww.nti.org&mgf=1>

The United Kingdom has administered smallpox vaccinations to more than five hundred medical personnel who could treat victims of a potential terrorism strike involving the virus at this summer's Olympic Games in London, the *London Telegraph* reported on Sunday.

The nation has amassed enough smallpox vaccine doses to "mount a U.K.-wide vaccination program" following a possible attack incorporating smallpox, which is said to have been eliminated from nature in 1980. The vaccinated group is comprised of 147 physicians, 164 nurses 100 paramedics and 32 scientific specialists split into a number of "Smallpox Management and Response Teams." Every team of five medical professionals encompasses a specially trained nurse and an expert on child health. All have received preparations for identifying and treating smallpox infections.

Participants in the medical groups first received vaccinations in 2005 and have subsequently been given refresher doses. Authorities have taken steps to ensure the personnel will be on standby while the Olympics are in progress in July and August.

The British Home Office said last year that Olympic competition sites or transit operations could be an "appealing target" for acts of biological terrorism. The threat was discussed against during a House of Lords discussion in December.

Conservative lawmaker Michael Jopling argued that the count of emergency personnel who have received anthrax and smallpox vaccinations was "pathetically low."

Home Office minister Oliver Eden highlighted the government's readiness in a letter prepared after the parliamentary discussion.



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"A wide range of possible incidents or attacks has been considered by government. Following this process, the UK Health Departments have established an appropriate stockpile of vaccines, medical countermeasures and specialist equipment to be used to protect and treat the public and emergency responders," Eden stated.

"Government has taken steps to protect emergency service personnel against such

threats. A cohort of front line health workers has been vaccinated to deal with any initial suspected or confirmed cases of smallpox," his letter adds. "No additional plans are in place specifically in response to the impending London 2012 Olympics, although risks are regularly reviewed based in part on the threat level in the national risks assessment (NRA)" (Edward Malnick, *London Telegraph*, Jan. 1).

### Revisiting Aum Shinrikyo: New Insights into the Most Extensive Non-State Biological Weapons Program to Date

Source: <http://www.nti.rsvp1.com/analysis/articles/revisiting-aum-shinrikyo-new-insights-most-extensive-non-state-biological-weapons-program-date-1/?mgh=http%3A%2F%2Fwww.nti.org&mgf=1>



Fluid collected from the Kameido site of Aum Shinrikyo's attempted 1993 *Bacillus anthracis* attack, cultured on Petri dishes to identify potential *Bacillus anthracis* isolates. Source: *Centers for Disease Control, United States*

#### Introduction [1]

Among the chilling details unearthed in the manifesto of Norwegian domestic terrorist Anders Behring Breivik were passages advocating the use of biological weapons and especially *Bacillus anthracis*, the bacterium that causes anthrax. Most commentators rightly downplayed the issue, since no evidence has emerged that Breivik obtained the bacterium or the capability to produce and disseminate it. [2] At the same time, Breivik's manifesto is yet another data point highlighting the appeal that biological weapons generally, and *B. anthracis* in particular, have to extremist groups and individuals seeking to cause mass casualties.

The most extensive non-state biological weapons program unearthed to date was organized in the 1990s by the Japanese Aum Shinrikyo cult. [3] Together with the 2001 letters containing *B. anthracis* mailed to the media and U.S. Congress, it is one of only two known non-state efforts to try to manufacture and disseminate aerosolized biological

weapons or *B. anthracis*. Especially with so few cases on which to base analysis, Aum provides a key data point for assessing bioterrorism risks. But while much has been written about the group, most analysis has focused either on its successful chemical weapons attacks or the cult's bizarre characteristics more generally. Aum's failed biological weapons program has received far less attention, presumably in part because of a paucity of information. [4] A recent report based on extensive interviews with key cult members, including some imprisoned and on death row in Japan, sheds new light on Aum's biological weapons-related activities. The research effort that culminated in the publication of *Aum Shinrikyo: Insights Into How Terrorists Develop Biological and Chemical Weapons* was spearheaded by Richard Danzig, who served as Secretary of the Navy in the Clinton administration, and is a longtime advocate in Washington's inner sanctums of more robust efforts to counter bioterrorism. [5] For full disclosure, this author worked on the early stages of the multi-year research effort that culminated in the report, though not the drafting of the



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final paper. The following draws on that work generally and the recently released report specifically.

Prior to the Danzig et al. study, key cult members had apparently never been debriefed in any detail about their biological weapons program. Japanese authorities were more interested in the chemical weapons program, because it produced casualties, than the biological weapons program that appears to have failed. It is unclear whether outside analysts had previously tried to gain access to imprisoned cult members, which would have required the cooperation of the Japanese government.

Newly available information about Aum's biological weapons efforts provides grounds for both comfort and concern. The group grappled with challenges that will confront many non-state actors that might hope to employ biological weapons. Yet Aum's struggles appear to have had as much to do with its often bungling approach as with the inherent challenges of deploying biological weapons, and future groups may navigate these challenges less ineptly. The ways in which Aum failed, and the trade-offs it confronted, provide lessons for policymakers looking to disrupt the efforts of future non-state actors that aspire to wield biological weapons.

### From Yoga, Massage, and Alternative Medicine to Catalyzing the Apocalypse

Aum Shinrikyo began as a peaceful group before gradually morphing into an apocalyptic millenarian cult. The group evolved from a yoga studio founded in Tokyo in the mid-1980s by Chizuo Matsumoto (who later renamed himself Shoko Asahara), a semi-blind acupuncture, massage, and Chinese medicine practitioner. [6] Aum drew members stifled by a lack of purpose and spirituality in their lives, an early core of whom became Asahara's inner circle.

The group grew rapidly; by 1989, it comprised about 4,000 members, and by 1995, when the cult carried out the sarin gas attacks on the Tokyo subway and Asahara and other key cult members were consequently arrested, it had about 10,000 members in Japan. [7] The cult controlled about two dozen properties in Japan and had foreign offices in the United States, Germany, and Russia. [8]

As early as 1985, Asahara predicted a coming apocalypse and identified himself and his

acolytes as key to averting it. Over time, this prediction morphed into a belief that the apocalypse was inevitable but cult members alone would survive it, and finally that the cult should hasten the apocalypse by launching attacks, including with biological weapons. [9]

The group's descent into violence was gradual. In late 1988, a follower accidentally drowned during ritual exercises, and fearing attention from authorities Asahara ordered his corpse burned and remains disposed of surreptitiously. When the deceased's best friend became disillusioned with the cult and attempted to leave it early the following year, he was killed. A few months after that, Asahara ordered the killing of a lawyer representing families of cult members, and cult members also killed the lawyer's wife and one-year-old son. [10]

One striking aspect of the Aum case is that roughly a dozen members of the inner circle personally carried out various criminal acts, including assassinations and the dissemination of biological and chemical agents. Cult rank-and-file appear to have assisted, likely often unknowingly, for example by staffing chemical and biological weapons production facilities, but appear not to have been directly involved in carrying out attacks. For members of the inner circle, crossing lesser thresholds to illegal action and violence appears to have reduced inhibitions to carrying out subsequent, more transgressive acts, and also made it difficult for members to contemplate leaving, since they were criminally implicated.

The trigger for the cult's shift from apocalypse survival to apocalypse initiation appears to have been its unsuccessful attempt to compete in Japan's 1990 parliamentary elections, on which it spent millions of dollars but garnered only a token number of votes. [11] The group's efforts to develop apocalypse-hastening weapons melded science and science fiction; members were fascinated by futuristic weapons concepts such as plasma guns that could atomize human bodies or mirrors several miles across that would float in space and reflect the sun's rays. [12] Several cult members visited the archive of Nicolai Tesla in Serbia to research his writings about earthquake-generating machines. [13] The cult purchased land in Australia with the intention of prospecting for uranium to build nuclear weapons. [14]



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And Aum purchased military hardware from the former Soviet Union, including AK-47 assault rifles, production equipment to manufacture its own versions in Japan, and a surplus MI-17 military transport helicopter, although its procurement efforts—like its later biological weapons efforts—were characterized by short attention spans and short shrift to technical challenges. [15]

While some of Aum's efforts are best characterized as science fiction, the cult's pursuit of chemical and biological weapons was substantially grounded in science. Chemical weapons were pursued in parallel with and ultimately as a substitute for failed biological weapons efforts. The cult reportedly manufactured small quantities of phosgene, hydrogen cyanide, soman, GF and VX nerve agents, and attempted to employ some of these in targeted assassinations, consistently without success. [16] It produced and disseminated larger quantities of sarin, with which it was able to kill and injure on several occasions. [17] Although Aum apparently dabbled with a variety of biological agents, it only seriously attempted to obtain and disseminate two, botulinum neurotoxin (BoNT), obtained from the bacterium *Clostridium botulinum*, and *B. anthracis*. The focus of this brief is Aum's biological weapons efforts, which have received relatively little attention to date and on which the Danzig et al. study sheds more new light.

### Botulinum Neurotoxin: Trying to Deploy the Most Potent Poison

After deciding that the lawyer representing cult members' families should be killed, Asahara asked his disciples what the most potent poison was, and one replied, "botulinum." Although not employed to assassinate the lawyer, after the humiliating 1990 electoral defeat Asahara ordered the toxin's acquisition. [18]

As with *B. anthracis*, the cult chose not to try to obtain *C. botulinum* from legitimate culture collections, presumably fearing such a mode of acquisition could be traced back to Aum following any attacks. [19] Instead, cult members gathered soil from an area known to contain the bacterium with the intention of culturing it. [20] The cult may also have obtained material from a South American culture collection. [21] One key cult member recalls the group worked with at least five

distinct strains of *C. botulinum*, suggesting that some effort was made to isolate *C. botulinum* from the thousands of other bacterial and fungal species a soil sample would contain, though no information sheds light on the methods by which the cult attempted this task. [22] If no isolation was attempted, that would provide one clear explanation for the apparent abject failure of Aum's *C. botulinum* efforts, since a soil sample would contain thousands of living bacterial and fungal species that would crowd out any desired *C. botulinum* the samples might have contained.

Cult members cultivated material in two very large, crude, homemade fermenters; whether these were capable of maintaining the anaerobic (oxygen-free) environment or temperatures required is unclear. No efforts were made to purify the resulting yellow liquid, a mixture of growth media and bacteria. According to a key cult member, at least some of the product was contaminated with *Bacillus [subtilis] natto*, an aerobic bacterium used in Japan to ferment soybeans, although how the contaminant was identified remains unclear. [23] Enormous volumes of the yellow liquid were supposedly produced; based on data provided by interviewed cult members Danzig et al. estimate total production at a remarkable 450 metric tons. [24]

Given the challenges Aum faced and its crude approach, the cult's efforts to produce BoNT unsurprisingly appear to have been unsuccessful. Mice on which the yellow liquid was tested showed no toxic effects, and one cult member reportedly slipped into a fermenting tank and nearly drowned, but subsequently showed no signs of illness. [25] In early 1990 the cult nonetheless disseminated large volumes of the liquid from trucks fitted with crude spray devices, deploying these in the vicinity of two U.S. Naval bases, the Narita airport, the Japanese Diet, the Imperial Palace, and the headquarters of a rival religious group. [26] No one appears to have been affected (including cult members who accidentally exposed themselves during the dissemination process), and the efforts went unnoticed by legal authorities.

In fall 1990, three Aum leaders were arrested for fraudulently purchasing land for a new compound; unbeknownst to the police, chemical weapons production



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facilities were under construction on the new land. According to a key cult member, the arrests were interpreted as a sign that a police raid was imminent, and Aum responded by dismantling its chemical and biological weapons facilities. [27] In 1992 the cult reinvigorated its efforts with a new focus on *B. anthracis*, detailed below. When these efforts failed to produce any casualties, in 1993 the group again attempted to produce BoNT and used small quantities of material it produced to unsuccessfully attack individuals and a subway station. [28]

A variety of factors may have contributed to the failed BoNT efforts. Several analysts have speculated that Aum may not have acquired a strain of *C. botulinum* capable of producing significant toxin. [29] Available information suggests the cult may simply have cultured a soil sample without attempting to isolate *C. botulinum*, which would not have yielded meaningful quantities of toxin even if the sample had contained a toxin-producing strain alongside thousands of other organic contaminants.

Even if the group did acquire and isolate a toxigenic strain, conditions for appropriate anaerobic fermentation may not have been achieved. Two cult members indicated the presence of bacterial contamination, and this would have interfered with the growth of *C. botulinum*. [30] It is also possible that some toxin was successfully produced but degraded or destroyed during processing, storage, or dissemination, or that whatever toxin was present was too dilute to have an effect. The most likely hypothesis remains that the cult failed to obtain or isolate the requisite bacteria.

### Bacillus Anthracis: “Genetic Engineering” to Produce Lethality?

In 1992, Aum reinvigorated its biological weapons efforts in the context of more robust militarized interaction with the outside world, the trigger for which seems to have been leader Asahara’s whims rather than any particular external event. [31] Efforts now focused on *B. anthracis*, the bacterium that causes anthrax. As with the *C. botulinum*, Aum decided not to try to obtain material from a culture collection for fear the acquisition could be traced. An unsuccessful effort was apparently made to steal a strain from a laboratory, after which a cult sympathizer provided access to a vaccine strain of the

material, although the details remain murky. [32]

Perhaps the most important puzzle on which the Danzig et al. report sheds potential light is with its alternative theory about how the cult ended up with a vaccine strain of *B. anthracis*. The conventional wisdom is that this represented bungling, possibly as simple as a clerical error when ordering material from a culture collection. Others have suggested that the anthrax dissemination was only intended as a trial run, or that the effort was sabotaged. [33] Danzig et al. advance a plausible, if still speculative, alternative explanation.

The cult member in charge of biological weapons efforts had completed undergraduate studies in agricultural and veterinary medicine at a university with a substantial anthrax collection, including both Sterne and Pasteur vaccine strains, before going on to PhD studies in virology. [34] Danzig et al. speculate that a contact at his old university provided him with *B. anthracis*, a supposition supported by new analysis of the samples gathered by the Japanese police, which suggest that the cult’s material closely matched the particular strain of Sterne held by the university. [35]

Two key cult members indicated that Aum members working on the project were aware they had a vaccine strain but planned to use “genetic engineering” to convert it to a more lethal form. While other analysts have dismissed this as more science fiction than science, Danzig et al. speculate that the cult may have obtained both Sterne and Pasteur strains and sought to combine them to produce a virulent strain. [36] It turns out that Russian scientists had published a paper detailing such an effort in 1989, and scientists at the Japanese agricultural and veterinary university had been working on the technique around the same time. [37] It bears emphasizing that no concrete evidence suggests the cult obtained a Pasteur strain, and even if it had, employing Sterne and Pasteur strains to create a virulent pathogen is a challenging task almost certainly beyond cult members’ capabilities.

As with BoNT, in 1993 the cult began attempting to mass produce *B. anthracis* without evidence that it had successfully obtained a pathogenic strain. Material was prepared in crude drum fermenters. No efforts were made to purify the 10-20



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metric tons of liquid slurry produced, which was dispersed using a homemade sprayer, first from the roof of a cult building located in a residential neighborhood and later from a modified truck.

In the former case, some birds and neighborhood pets were apparently killed, though whether by the substance released remains unclear. Neighbors complained of the foul odor and gelatinous substance that rained down in the building's vicinity, leading the police to visit and gather samples, but these were not tested until after the 1995 sarin subway attacks. [38] After attacks with liquid slurry failed to produce any casualties, the group began to employ crude drying devices to produce a powder, an unknown quantity of which was disseminated by truck in Tokyo. [39] Although some neighborhood birds may have perished, it appears no humans were harmed as a result of Aum's *B. anthracis* efforts. In fact, multiple cult members apparently inadvertently inhaled the material produced and subsequently reported no ill effects. [40] As with BoNT, a variety of factors appear to explain Aum's lack of success. If the cult was indeed attempting to produce a virulent strain of *B. anthracis* using two vaccine strains, this remarkably ambitious effort unsurprisingly failed. Even in the unlikely event that the effort had been successful, the resulting strain might not have been sufficiently robust for subsequent production, storage, and dissemination. In the even more unlikely event that Aum had produced and successfully stored volumes of a virulent strain, it is possible that poor dissemination capabilities might have damaged the material or failed to aerosolize it so that sufficient quantities could be inhaled. For example, the cult employed a homemade nozzle that reportedly spouted rather than sprayed and dispersed material during the day, exposing it to UV radiation and thermal updrafts that would have reduced concentrations at ground level. [41] But the most plausible hypothesis remains that Aum failed to obtain a virulent strain of *B. anthracis*.

### Learning from Aum's Failed Efforts

Especially in light of the paucity of bioterrorism cases, Aum's failed efforts to deploy effective biological weapons are a rich data point for assessing the threat and identifying policies to ameliorate it. Every case has its idiosyncrasies, and perhaps none quite so much as Aum,

which really was "stranger than fiction." But with that caveat in mind, the case does suggest three generalizations about the bioterrorism threat.

### Putting the bioterrorism threat in perspective

Cult leader Asahara took a key lesson from his acolytes' repeated failures to mount an effective biological weapons attack: American hyping of the bioterrorism threat was intended to mislead groups like his into pursuing this unproductive path in lieu of other, potentially more effective weapons. [42] Although to this observer it appears unlikely Washington's public diplomacy efforts are quite so crafty (at least not intentionally so), Aum's struggles do suggest that successful bioterrorism is more challenging than it is often portrayed.

Generalizations from one case should be taken with a grain of salt, all the more so when the case is as idiosyncratic as this one. But the cult brought to bear both some degree of relevant expertise and very substantial resources. The head of the biological weapons program had completed undergraduate studies in agricultural and veterinary medicine and conducted PhD studies in virology, albeit was not a microbiologist and lacked tacit knowledge regarding working with bacteria. [43] Another senior member was a medical doctor. As for resources, the cult possessed and was willing to spend millions of dollars on its unconventional weapons programs and constructed substantial infrastructure to support it.

The Aum case particularly highlights the importance of specialized, tacit knowledge to be able to isolate, manipulate, cultivate, and sustain living organisms, somewhat in contrast to chemical weapons development efforts. [44] The cult's failure to successfully deploy biological weapons appears to be over determined. Whatever the causes of its failures—and these remain somewhat ambiguous—it appears that plenty of others stood between the cult and a successful bioterrorism attack. For example, the cult appears to have failed to obtain a pathogenic strain of *B. anthracis* or a toxigenic strain of *C. botulinum*. But had it succeeded, it appears likely the cult would have struggled to cultivate those strains. Had





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it overcome that hurdle, cult members would almost certainly have exposed themselves during the production and dissemination process. Had they avoided those hurdles, Aum's crude production and dissemination techniques would have meant that few if any non-cult members would have been sickened by the crudely disseminated slurry, even if it had contained BoNT or a virulent strain of *B. anthracis*.

### *Effective dispersal is a significant hurdle*

Discussions of bioterrorism tend to focus on the possibility that individuals or groups might obtain agents they could use to conduct attacks, but often give short shrift to how readily such agents could be disseminated if they were obtained. The evidence suggests that Aum likely failed to obtain potent agents, and that its struggles to distribute what it did obtain effectively are therefore not necessary to explaining its failure to cause harm via biological weapons.

Nonetheless, Aum's struggles to effectively disseminate the material it produced highlight an important finding. Obtaining agents is likely the greatest hurdle to successful bioterrorism, but disseminating them to cause large numbers of casualties, and simultaneously avoiding exposure of those doing the disseminating, is a non-trivial secondary challenge that popular discussions of bioterrorism often overlook.

### *Where there is smoke, there may later be fire*

Aum's efforts were characterized by steadily escalating levels of attempted violence, a relatively seamless transition from individual to mass attacks, and from conventional to

unconventional weapons, and a trial-and-error process of repeated errors but persistence and attempts at correction in the face of failure. Like other non-state groups, Aum engaged in steadily escalating levels of illegal action and violence. The group began with the illegal disposal of the body of a cult member who had been accidentally killed and escalated to attacks on individuals perceived to be antagonistic to the cult and ultimately the general populace. Initial transgressions appear to have cemented group affiliation, emboldened cult members and especially the leader Asahara, and made it difficult for members to back out as violence escalated. One striking element of the case is the relatively seamless transition from individual to mass attacks, and from more to less conventional ones, (i.e., from killing a lapsed cult member by strangling him with a rope to attempting to expose large populations to BoNT and *B. anthracis*). Normative inhibitions appear to have played little role, although it is hard to know how far that can be generalized beyond the case.

Relatedly, the cult was not dissuaded by repeated failures, and it was emboldened at the lack of consequences for its earlier actions. This suggests that where there is smoke there may be fire, in other words, failed attacks may be harbingers of future, and potentially more successful, ones. The pattern of trial, error, and potential later success also provides support for a "broken windows" theory of counterterrorism: responding robustly to more modest initial transgressions may make subsequent greater transgressions less likely. [45]

### Sources:

[1] Philipp C. Bleek is assistant professor of Nonproliferation and Terrorism Studies in the Graduate School of International Policy and Management at the Monterey Institute of International Studies, a Graduate School of Middlebury College, and fellow at the James Martin Center for Nonproliferation Studies. He thanks Richard Danzig, Jessica Varnum, and Ray Zilinskas for helpful comments on earlier drafts.

[2] One striking thing about Breivik's manifesto is the sobriety of its analysis of anthrax, especially given the author's apparent lack of relevant expertise. However, since much of the manuscript was plagiarized from various sources, whether Breivik deserves much credit for the analysis is debatable. "Theoretically," the manifesto says (in this case channeling Wikipedia), "anthrax spores can be cultivated with minimal special equipment and less than a first-year collegiate microbiological education." But in practice, the document notes, the procedure "is difficult and dangerous." Andrew Berwick (pseudonym), 2083: *A European Declaration of Independence* (self-published, 2011), accessed November 4, 2011 at <http://www.kevinislaughter.com/wp-content/uploads/2083+-+A+European+Declaration+of+Independence.pdf>, pp. 952-954, 957, 959, 961-965.

[3] As William Rosenau notes, "Aum is the only example of a terrorist group that has attempted to carry out mass murder with biological toxins and human pathogens. Other terrorists have attempted to acquire human pathogens, and one religious cult has succeeded in poisoning



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- food with dangerous bacteria. But to date only Aum has attempted to create and use bioweapons on a large scale. In short, Aum is an important source of empirical information on sophisticated terrorist efforts to acquire these weapons." William Rosenau, "Aum Shinrikyo's Biological Weapons Program: Why Did It Fail?" *Studies in Conflict and Terrorism* Volume 24, Number 4 (2001), p. 290.
- [4] John Parachini wrote in 2005, "Aum's research about biological weapons remains remarkably obscure in official, journalistic, and scholarly accounts...These activities warrant considerably more thorough examination than they have received thus far." John Parachini, "Aum Shinrikyo," in Brian Jackson et al., *Aptitude for Destruction, Volume 2: Case Studies of Organizational Learning in Five Terrorist Groups* (Santa Monica, CA: RAND, 2005), p. 19.
- [5] Richard Danzig et al., *Aum Shinrikyo: Insights Into How Terrorists Develop Biological and Chemical Weapons* (Washington, DC: Center for a New American Security, 2011). Danzig's prior work on the topic includes Richard J. Danzig, Rachel Kleinfeld, and Philipp C. Bleek, *After an Attack: Preparing Citizens for Bioterrorism* (Washington, DC: Center for a New American Security, 2007); Richard J. Danzig, *A Policymaker's Guide to Bioterrorism and What to Do About It* (Washington, DC: National Defense University, 2009); Richard Danzig, *Catastrophic Bioterrorism: What Is To Be Done?* (Washington, DC: National Defense University, 2003). Subsequent references to "Danzig et al." refer to the Aum Shinrikyo report.
- [6] Aum appears to refer to the "ohm" sound yoga practitioners make; Asahara (then Matsumoto) called his yoga school Aum, Inc. Shinrikyo means teaching of truth. An earlier iteration of the group was called Aum Shinsen no Kai, or Aum Mountain Hermit's Society, based on a prophecy that survivors of the coming apocalypse would be benevolent *shinsen*, or mountain hermits. Ian Reader, *Religious Violence in Contemporary Japan: The Case of Aum Shinrikyo* (Honolulu: University of Hawaii Press, 2000), p. 89.
- [7] Reader, pp. 63, 92. Only a modest fraction of these were "monks" or "nuns" who had fully rejected all ties to the outside world. The group also attempted to open branches in Germany, the United States, and Sri Lanka, and was apparently most successful in Russia, where it attracted approximately tens of thousands of followers after Asahara visited the country with several hundred Japanese members on a "Salvation Tour," including "spectacular" events and considerable radio and television advertising. Parachini, pp. 29-31.
- [8] Appendix C: Aum Shinrikyo Facilities in *Global Proliferation of Weapons of Mass Destruction: A Case Study on the Aum Shinrikyo* Senate Government Affairs Permanent Subcommittee on Investigations, October 31, 1995, accessed November 4, 2011 at [www.fas.org/irp/congress/1995\\_rpt/aum/index.html](http://www.fas.org/irp/congress/1995_rpt/aum/index.html).
- [9] Reader, pp. 88-93. Although the cult's often-inept violence attracted police attention, a combination of equally-inept policing and strict laws protecting religious organizations allowed it to act with relative impunity.
- [10] Reader pp. 143-145, 148-151; Danzig et al., pp. 9, 12, 14.
- [11] Reader, pp. 148, 153-158.
- [12] Reader, p. 180.
- [13] Robert Jay Lifton, *Destroying the World to Save It: Aum Shinrikyo, Apocalyptic Violence, and the New Global Terrorism* (New York: Metropolitan Books, 1999), pp. 119-120. One can imagine the elderly archivist's bafflement at the strange Japanese visitors who spent day after day digging through the archives for earthquake generation-related material.
- [14] Parachini, p. 23
- [15] Parachini, p. 26; Reader, p. 217; Lifton, p. 181.
- [16] Danzig et al., p. 29.
- [17] The Danzig et al. study also includes a rich account of Aum's chemical weapons efforts with some new details about the cult's activities, including the most thorough discussion of the cult's crude but effective sarin dissemination techniques published to date.
- [18] Danzig et al., p. 16.
- [19] Since the cult operated a hospital, it could plausibly have obtained the bacterium from a commercial culture collection.
- [20] What was gathered remains unclear, but a key cult member told Danzig et al. that the cult worked on at least five strains or variants of *C. butulinum*, although some material may later have been obtained from a South American culture collection. How the cult isolated and identified the strains on which it supposedly worked remains unclear. Danzig et al., p. 16.
- [21] The Danzig et al. study notes this possibility but does not attribute it to a source; see endnote 68, p. 54.
- [22] Danzig et al, p. 16.
- [23] Danzig et al., p. 17.
- [24] A key cult member described to Danzig et al. two or three cube-shaped steel boxes, with dimensions of 2 x 2 x 2.5 meters, used as fermenters, and approximately 50 batches of yellow liquid produced. The total volume supposedly produced would be sufficient to fill dozens of full-size fertilizer transport trucks, suggesting that perhaps the cult member's recollections should be taken with a grain of salt. That said, Aum had both very substantial financial resources (a



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study by the U.S. Senate Government Affairs Permanent Subcommittee on Investigations estimated Aum's total resources in 1995 at more than \$1 billion), and the land and manpower for substantial facilities. *Global Proliferation of Weapons of Mass Destruction: A Case Study on the Aum Shinrikyo*, Senate Government Affairs Permanent Subcommittee on Investigations, October 31, 1995, accessed November 4, 2011 at [www.fas.org/irp/congress/1995\\_rpt/aum/index.html](http://www.fas.org/irp/congress/1995_rpt/aum/index.html).

[25] Mice were apparently injected with the yellow liquid; whether ingestion and aerosol inhalation were also employed is unclear. There appears to have been some uncertainty about whether some mice were affected; some did die, but it was unclear whether this was linked to the administration of the botulinum. Danzig, p. 16 and endnote 76, pp. 54-55.

[26] Danzig et al., p. 17.

[27] Danzig et al., pp. 17, 20.

[28] Danzig et al., p. 21.

[29] W. Seth Carus, *Bioterrorism and Biocrimes: The Illicit Use of Biological Agents Since 1990* (National Defense University, 2002), p. 50; Gregory D. Koblenz, *Living Weapons: Biological Warfare and International Security* (Ithaca, NY: Cornell University Press, 2011), p. 213; Milton Leitenberg, *Assessing the Biological Weapons and Bioterrorism Threat* (U.S. Army War College, 2005), p. 60.

[30] Danzig et al., p. 17.

[31] Danzig et al., pp. 20-21.

[32] Some of the uncertainty stems from the fact that the individual in charge of the cult's biological weapons efforts declined interview requests from Danzig et al., and other key cult members disclaim knowledge of his bacillus anthracis source(s). Danzig et al., pp. 21, 23.

[33] Parachini, p. 21.

[34] Unfortunately, the cult member in charge of the biological weapons program declined to meet with Danzig and his colleagues.

[35] Paul Keim, who with colleagues had analyzed a sample from Aum's 1993 attempted *B. anthracis* attack and identified it as a benign Sterne vaccine strain, conducted further analysis in 2010 in response to a request from Danzig et al. and determined that, "The genome sequence was extremely similar not just to Sterne but specifically to the 34F2 strain then available at Obihiro," the university where the cult member in charge of the biological weapons program had conducted his undergraduate studies. Danzig et al., p. 23.

[36] Virulent *B. anthracis* possesses two plasmids, while the Sterne and Pasteur strains each possess only one of the two and can consequently stimulate immune reactions without being lethal. The two strains can be employed to yield virulent bacteria via either cell-to-cell "mating" (conjugation), or the use of a virus that infects bacteria (transduction). The technique is challenging and likely beyond the abilities of Aum's members, but Danzig et al.'s speculation that it was being attempted finds considerable support from the accounts of cult members and other information. Danzig et al., pp. 23-25.

[37] The speculation is further reinforced by the recollection of one key cult member that a microscope was used to confirm success in transforming the vaccine strain to a more virulent one. The second plasmid found on a virulent anthrax strain generates a capsule that can be viewed after staining under a light microscope. Danzig et al., p. 24. The Russian paper cited is A.S. Stepanov, "Transduction and Conjugation Transfer of the pX02 Plasmid in *Bacillus anthracis*" *Molekuliarnaia Genetika, Mikrobiologia, I Virusologia* 12 (1989), pp. 39-43.

[38] Raymond A. Zilinskas, *Biological Warfare: Modern Offense and Defense* (Lynne Rienner, 2000), p. 81; Lifton, p. 188; Danzig, p. 25.

[39] Danzig et al., p. 25.

[40] Danzig et al., p. 25.

[41] Gregory D. Koblenz, *Living Weapons: Biological Warfare and International Security* (Ithaca, NY: Cornell University Press, 2011), p. 213.

[42] Danzig et al., p. 26, based on Danzig interview with Fumihiko Joyu, April 21, 2008. One can imagine Al Qaeda operatives similarly grumbling about chemical, biological, and especially nuclear terrorism risk assessments; the online humor magazine *The Onion* nicely captured that scenario in a story headlined "Terrorist Has No Idea What To Do With All This Plutonium" a few years ago. November 30, 2005, accessed October 2, 2011 at [www.theonion.com/articles/terrorist-has-no-idea-what-to-do-with-all-this-plu,1847/](http://www.theonion.com/articles/terrorist-has-no-idea-what-to-do-with-all-this-plu,1847/).

[43] Tacit knowledge is knowledge that cannot be conveyed in words or symbols, but must be learned by doing, often through a process of trial-and-error. A paradigmatic example is learning to write a bicycle; a textbook on bicycle-riding would presumably be of little use to mastering the core skill of balancing while operating the bicycle.

[44] Successfully mounting a *B. anthracis* attack requires skills associated with obtaining, growing, processing, sporulating, drying, pulverizing, testing, and disseminating, posing major challenges even for those trained as, for example, medical doctors or veterinarians.

[45] The "broken windows" strategy of policing was first articulated by James Q. Wilson and George L. Kelling in a 1982 article in the *Atlantic Monthly*, in which they suggested that not fixing broken windows would encourage greater transgressions. The approach was famously



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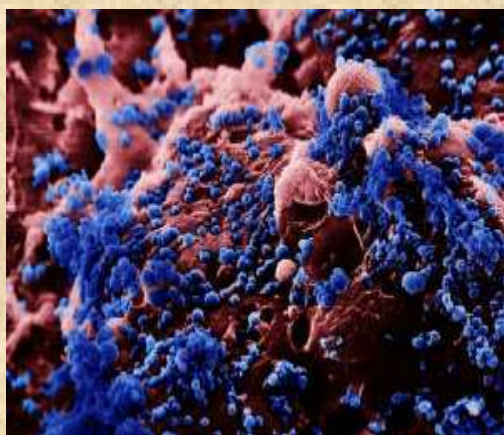
implemented in New York in the early 1990s, first by the head of the city's Transit Police, William Bratton, and then by Major Rudy Giuliani and his police commissioner, Howard Safir. As implemented in New York, one notable example of "broken windows" were the "squeegee men" who cleaned car windshields at intersections and then demanded payment. James Q. Wilson and George L. Kelling, "Broken Windows: The Police and Neighborhood Safety" *The Atlantic Magazine* (March 1982), accessed November 4, 2011 at <http://www.theatlantic.com/magazine/archive/1982/03/broken-windows/4465/>.

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### Weaponized H5N1 compared to atomic bomb's creation

Source: [http://www.bioprepwatch.com/weapons\\_of\\_bioterrorism/weaponized-h5n1-compared-to-atomic-bombs-creation/322783/](http://www.bioprepwatch.com/weapons_of_bioterrorism/weaponized-h5n1-compared-to-atomic-bombs-creation/322783/)

A recent editorial published in the journal



*New Scientist* compared the recent scientific experiments that created strains of bird flu transmissible through the air to the creation of the atomic bomb.

In the wrong hands, the viruses created independently by researchers from the Erasmus University in the Netherlands and the University of Wisconsin – Madison, could kill millions, according to *NewScientist.com*.

*New Scientist* acknowledges that the circumstances between the success of the Manhattan project and the experiments on H5N1 influenza are very different.

"Oppenheimer and his colleagues were trying to defeat tyranny," *New Scientist* said.

"Fouchier and Kawaoka were motivated by a desire for knowledge that they argue will make the world safer.

"Fouchier and Kawaoka believe that understanding how the deadly H5N1 virus can become easily transmissible between people is crucial knowledge. Others argue that the experiments don't mimic what might happen in nature, and that the risks outweigh any benefits."

*New Scientist* added that the U.S. National Science Advisory Board for Biosecurity was not asked for its opinion until the two papers describing the research neared publication. Despite asking for censorship of key details, it remains unclear whether it is too late to neutralize any danger.

"While no one doubts the researchers' good intentions, one has to ask how the work progressed so far without a wider debate," according to *New Scientist*. "In 2007, NSABB drew up a framework for proactively weighing up the risks and benefits of experiments that might provide a recipe for bioterror."

The U.S. National Institutes of Health, which helped fund both experiments, recently said that the U.S. government would create a new policy to evaluate such research, though it has not provided any details as to what this means.

### Health and safety plans at London 2012 Olympic Games

Source1: <http://www.digitaljournal.com/article/317985>

Source2: <http://www.thelancet.com/series/mass-gatherings>

It's still seven months until the London 2012 Olympic Games take place but already plans to ensure the health and safety of the competitors and the public are

being formulated and put in place, using information from a number of health experts.



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According to a series of six reports in *'The Lancet'* mass gatherings, such as the crowds expected to visit London during the Olympics pose a risk to the health and welfare of people with everything from diseases, accidents and terrorist attacks being assessed. The reports were compiled following outbreaks of infectious diseases, crowd stampedes and other incidents at events such as the annual Hajj pilgrimage to Mecca in Saudi Arabia. The series, which will be published in full in the January, February and March editions of the magazine and will be also be published online, point to a need for governments and health authorities to have specific plans to cope with mass gatherings. The magazine says,

*"Managing such events requires providing for all eventualities from infectious disease outbreaks to security against terrorist attacks. Thus mass*



*gatherings health is a topic that goes beyond the scope of typical public health provision"*

### Series Comments

- **Mass gatherings health Series**  
John McConnell

### Series Papers

- **Emergence of medicine for mass gatherings: lessons from the Hajj**  
Ziad A Memish, Gwen M Stephens, Robert Stephen, Qanta A Ahmed
- **Global perspectives for prevention of infectious diseases associated with mass gatherings**  
Ibrahim Abubakar, Philippe Gautret, Gary W Brunette, Lucille Blumberg, David Johnson, Gilles Pומרol, Ziad A Memish, Maurizio Barbeschi, Ali S Khan
- **Non-communicable health risks during mass gatherings**  
Robert Steffen, Abderrezak Bouchama, Anders Johansson, Jiri Dvorak, Nicolas Isla, Catherine Smallwood, Ziad A Memish
- **Crowd and environmental management during mass gatherings**  
Anders Johansson, Michael Batty, Konrad Hayashi, Osama Al Bar, David Marcozzi, Ziad A Memish
- **Infectious disease surveillance and modelling across geographic frontiers and scientific specialties**  
Kamran Khan, Scott J N McNabb, Ziad A Memish, Rose Eckhardt, Wei Hu, David Kossowsky, Jennifer Sears, Julien Arino, Anders Johansson, Maurizio Barbeschi, Brian McCloskey, Bonnie Henry, Martin Cetron, John S Brownstein
- **Research agenda for mass gatherings: a call to action**  
John S Tam, Maurizio Barbeschi, Natasha Shapovalova, Sylvie Briand, Ziad A Memish, Marie-Paule Kiény



## Canadian led research team develop new model to anticipate disease outbreaks at 2012 Olympics

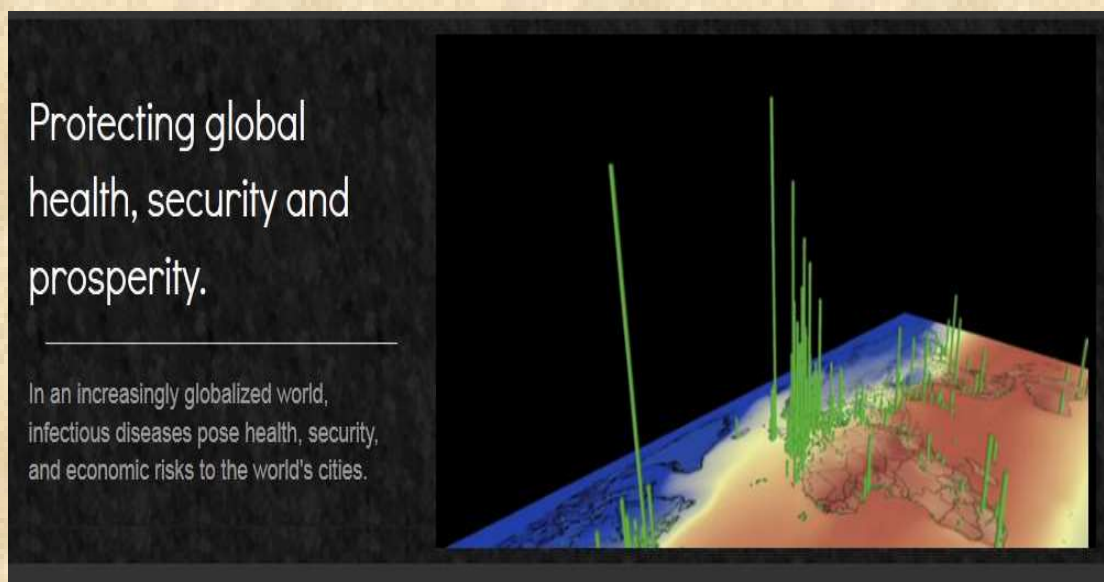
Source: <http://www.healthcanal.com/public-health-safety/25505-Canadian-led-research-team-develop-new-model-anticipate-disease-outbreaks-2012-Olympics.html>

A research team led by St. Michael's Hospital's Dr. Kamran Khan is teaming up with British authorities to anticipate and track the risk for an infectious disease outbreak at the London Olympics this summer.

For the first time, experts from around the world are working together to integrate technologies and disease surveillance at both

For this piece, the authors have drawn on expertise from colleagues in Britain and Saudi Arabia, which hosts the Hajj pilgrimage, the world's largest annual mass gathering of approximately three million pilgrims.

This technology is combined with Dr. Khan's Bio.Diaspora – a system that uses air traffic patterns to predict the spread of infectious disease – and new internet-based tools that



local and global levels.

"Systems that track infectious diseases at the global level are poorly connected to those at the local level," said Dr. Khan, lead author of a paper published Monday in *The Lancet Infectious Diseases*. "But by integrating them, we can create a novel and more effective approach to preventing infectious disease risks at mass gatherings, such as the Olympics."

Traditional surveillance efforts have mostly focused on the host city and country of a mass gathering to detect and quickly arrange for medical and public health responses. However, new technologies that look at how people move within a mass gathering offer insights into how the spread of disease can be affected by crowd behaviour.

can detect disease outbreaks in real-time. Together, this knowledge can help direct surveillance efforts globally to specific cities and outbreaks that pose the greatest risk to a mass gathering, even before the event starts.

"Connecting all the pieces offers us early detection of global outbreak events, an assessment of how likely these events are to enter the mass gathering venue, and an understanding of the local implications of what imported disease might do and how best to mitigate those risks," Khan said.

Bringing together the different models has involved assembling a worldwide group of specialists, including experts from WHO, Britain,



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Saudi Arabia, the U.S. and Canada. This new approach "could produce the first real-time risk monitoring and assessment platform to strengthen awareness of global

infectious disease threats before, during and immediately after mass gatherings," the authors said.

### New way to stop bleeding

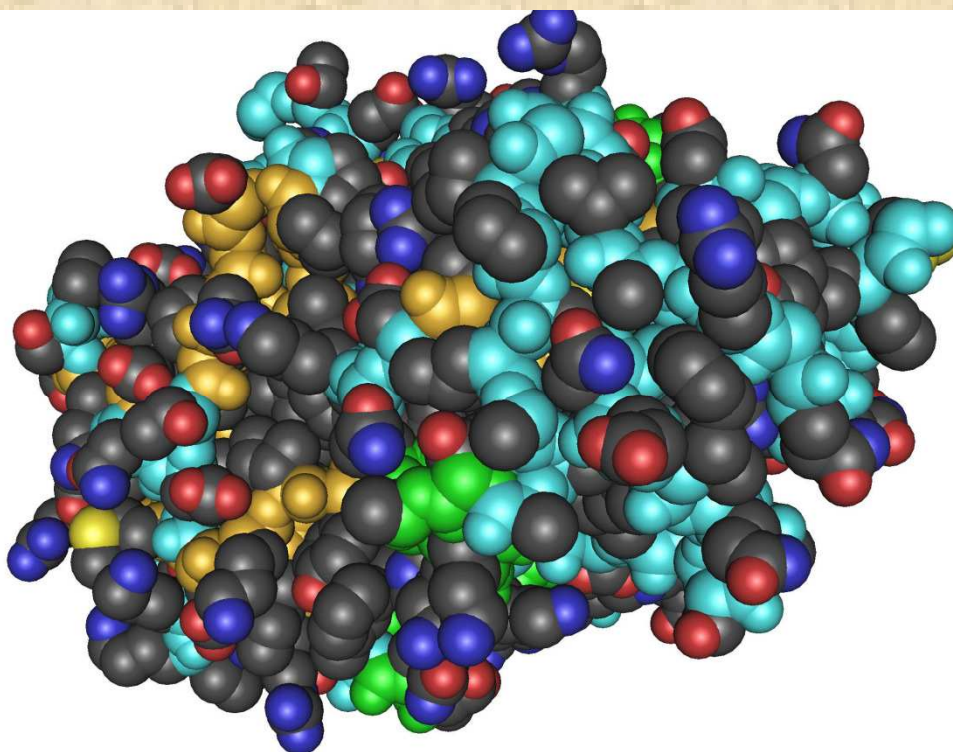
Source: <http://web.mit.edu/newsoffice/2012/stop-bleeding-0110.html>

MIT engineers have developed a nanoscale biological coating that can halt bleeding nearly instantaneously, an advance that could dramatically improve survival rates for soldiers injured in battle.

The researchers, led by Paula Hammond and funded by MIT's Institute of Soldier Nanotechnologies and a Denmark-based company, Ferrosan Medical Devices A/S,

*Advanced Materials*. Lead author of the paper is Anita Shukla PhD '11, who is now a postdoc at Rice University.

Uncontrolled bleeding is the leading cause of trauma death on the battlefield. Traditional methods to halt bleeding, such as tourniquets, are not suitable for the neck and many other parts of the body. In recent years, researchers have tried alternative approaches, all of which



created a spray coating that includes thrombin, a clotting agent found in blood. Sponges coated with this material can be stored stably and easily carried by soldiers or medical personnel. The sponges could also prove valuable in civilian hospitals, says Hammond, the David H. Koch Professor in Engineering.

"The ability to easily package the blood-clotting agent in this sponge system is very appealing because you can pack them, store them and then pull them out rapidly," she says.

Hammond and her colleagues described the technology in the Dec. 27 online edition of

have some disadvantages. Fibrin dressings and glues have a short shelf life and can cause an adverse immune response, and zeolite powders are difficult to apply under windy conditions and can cause severe burns. Another option is bandages made of chitosan, a derivative of the primary structural material of shellfish exoskeletons. Those bandages have had some success but can be difficult to mold to fit complex wounds. Many civilian hospitals use a highly absorbent gelatin



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sponge produced by Ferrosan to stop bleeding. However, those sponges need to be soaked in liquid thrombin just before application to the wound, making them impractical for battlefield use. Hammond's team came up with the idea to coat the sponges with a blood-clotting agent in advance, so they would be ready when needed, for either military or civilian use.

To do that, the researchers developed a nanoscale biological coating that consists of two alternating layers sprayed onto a material, such as the sponges used in this study. The researchers discovered that layers of thrombin, a natural clotting protein, and tannic acid, a small molecule found naturally in tea, yield a film containing large amounts of functional thrombin. Both materials are already approved by the U.S. Food and Drug Administration, which could help with the approval process for a commercialized version of the sponges, Shukla says.

A key advantage of the spray method is that it allows a large amount of thrombin to be packed into the sponges, coating even the interior fibers, says David King, a trauma surgeon and instructor in surgery at Massachusetts General Hospital who was not involved in this research. "All of the existing hemostatic materials suffer from the same limitation, which is being able to

deliver a dense enough package of hemostatic material to the bleeding site. That's why this new material is exciting," says King, also an Army reservist who has served in Afghanistan as chief of trauma surgery.

Once sprayed, the sponges can be stored for months before use. The sponges can also be molded to fit the shape of any wound. "Now we have an alternative that could be used without applying a large amount of pressure and can conform to a variety of wounds, because the sponges are so malleable," Shukla says.

In tests with animals at Ferrosan, the coated sponges were applied to wounds, with light pressure (from a human thumb), for 60 seconds — and stopped the bleeding within that time. Sponges lacking thrombin required at least 150 seconds to stop the bleeding. A simple gauze patch, applied for 12 minutes (the length of the experiment), did not stop the bleeding.

The researchers have filed a patent application on this technology and on similar sponges coated with the antibiotic vancomycin. Hammond's lab is now working on combining the blood-clotting and antibiotic activities in a single sponge.

### Are YOU ready?

Take the test on bio-preparedness

<http://www.proprofs.com/quiz-school/story.php?title=bioterrorism-preparedness-assessment>

### Has bird flu biology opened bioterror box?

By Dan Vergano

Source: <http://www.usatoday.com/tech/science/story/2012-01-25/bird-flu-human/52794524/1?csp=34news>

It was a public health nightmare: A deadly flu bug spread like wildfire around the world, killing tens of millions of people.

That was nearly a century ago. Fears that the nightmare could return today — perhaps with even more terrifying consequences — have set off a heated debate among scientists and, for the first time, delayed the publication of scientific flu research in two professional journals.

The object of those fears: a threatening new version of the bird flu virus that didn't emerge from nature but was born out of experiments in a lab.

Researchers in the Netherlands and at the University of Wisconsin-Madison, who were trying to determine what genes might mutate and make bird flu





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attack humans, created a strain that can pass easily among ferrets.

Why should we care that ferrets get the bird flu?

Ferrets are the closest lab animal models to humans for flu vaccine studies. Until now, cases of bird flu passing from infected birds to humans were limited to people — farmworkers usually — who worked closely with the birds. And bird flu almost never passes from person to person.

So creation of a bird flu strain easily transmissible between mammals poses frightening scenarios: What if the strain escaped from the lab and spread among humans? David Nabarro, a World Health Organization expert, estimated that such a pandemic could kill 20 million to 150 million people worldwide.

What if terrorists intent on doing harm learned enough from the published scientific work to reproduce the strain on their own? They could release it to start a pandemic.

The federal National Science Advisory Board for Biosecurity (NSABB) reviewed the work, and last month, it requested for the first time ever that two prominent scientific journals, *Science* and *Nature*, withhold from the public details of the two potentially dangerous bird flu studies.

Journal editors, sensitive to the security issues, have delayed publication of the studies.

"We have to protect the public by making sure the critical information doesn't get into the hands of those who might misuse it," says *Science* editor-in-chief Bruce Alberts.

On the other hand, he says, "this knowledge could be essential for speeding the development of new treatments to combat this lethal form of influenza."

Last week, leaders of the two labs involved announced a two-month halt to research on bird flu viruses engineered to pass among mammals, citing "perceived fears" that the microbes may escape from the lab. They called for the World Health Organization to discuss the risks and benefits of their research.

"I think it is a reasonable first step," says University of Michigan virologist Michael Imperiale, a member of the federal NSABB group.

The strains are securely locked down in labs in the Netherlands and Wisconsin, but the episode raises questions about whether such experiments should be done in the first place.

"I'm not convinced a 'doomsday' strain is what we have here," says NSABB chief Paul Keim, an anthrax researcher at Northern Arizona University in Flagstaff, "but now at this point, we can see the trajectory creating something of very grave concern."

### A high rate of death

Why the concern? Bird flu, or H5N1 avian flu, has killed 342 people in the past decade out of 581 who were infected, a death rate of almost 60%, according to the World Health Organization. That percentage is much debated by researchers, who argue it's skewed because many milder cases aren't reported. That rate is about 120 times higher than for the 1918 flu, and roughly 600 times greater than for the 2010 seasonal flu.

The 1918 flu virus strain that killed perhaps 50 million people, including 675,000 Americans, according to the federal Centers for Disease Control and Prevention (CDC), hangs heavy over the debate. That bug, emerging near the end of World War I, had new genetic features and wreaked havoc on the unprepared immune systems of people at the time.

The nightmare for scientists today is that the mutation-prone bird flu virus — which they say is similarly foreign to the human immune system — could evolve into a strain that could be transmitted from person to person and trigger a similar deadly outbreak. In the ferret flu studies, biologists may have completed that step in the laboratory. The researchers reinfected ferrets with bird flu until a strain evolved that seemed able to move from ferret to ferret by sneeze, raising fears it could travel the same way among people if it escaped.

Outside the lab, some question the wisdom of putting the world at this kind of risk. Bioterror expert Michael Osterholm of the University of Minnesota asks what good it is to identify threatening new flu genes in a lab when no way exists to monitor Asia's poultry cages for an outbreak.

"We have worried about this for a long time," says microbiologist Ronald Atlas of the University of Louisville. Atlas was a member of the 2004 National Academy of Science panel that described this very scenario — a lab creation aimed at combating a disease triggering pandemic fears — and called for the creation of the NSABB. "My



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sense is the scientific community is really divided on this," Atlas says.

### 'Tickling the dragon's tail'

At the dawn of the atomic era, weapons scientists tried "tickling the dragon's tail," in the words of Manhattan Project physicist Richard Feynman, handling radioactive blocks just close enough together to gauge where nuclear chain-reactions start, at considerable risk to themselves and everyone in the vicinity.

Today's biological equivalent comes from "dual-use" microbes, grown in labs to be strong enough to test vaccines but running the risk the microbes could accidentally escape or be hijacked for bioterrorism.

Case in point: the anthrax attacks in 2001, which killed five people. The strain of Ames anthrax bacteria used in the attacks was specifically grown for vaccine testing.

FBI investigators concluded the culprit was a lab insider, researcher Bruce Ivins, who committed suicide in 2008 while the investigation was underway.

Over the past decade, a litany of other microbe reports have drawn concern:

- In 2002, Stony Brook (N.Y.) University researchers reported the re-creation of polio virus from stitched-together DNA fragments. The study raised concerns that bioterrorists could patch together attack bugs from gene scraps alone, not even needing the bugs themselves in a Petri dish.

- In 2005, federally funded researchers published a reconstructed gene map of the 1918 flu virus after a review by Keim's panel. Then-CDC chief Julie Gerberding called the research "critically important in our efforts to prepare for pandemic influenza."

- Last year, the National Research Council reported that the FBI and the "U.S. intelligence community" had inspected a suspected al-Qaeda bioterror lab during the anthrax murder investigation. Critics of the FBI case, such as Rep. Rush Holt, D-N.J., worried that terrorists were growing microbes for bioterror purposes. Much like the knowledge that atomic bombs were possible spurred nuclear proliferation during the Cold War, news that bird flu can be made transmissible to mammals could suggest ideas to a well-trained, would-be bioterrorist, Keim says. "The research is out there," he says.

### Scientific disagreement

The pages of one journal in the middle of the debate, *Nature*, reveal the wide disagreement among scientists about whether publishing the lab-made bird flu strain represents a step too far.

"I believe that the risk of future outbreaks in humans is low," wrote flu genetics expert Peter Palese of the Mount Sinai School of Medicine in New York in a Jan. 12 opinion piece.

Bird flu has had millions of chances in tightly packed chicken coops of evolving the capability of transmitting among people, he argues, a natural experiment showing there is little chance of the bug triggering a pandemic.

"Slowing down the scientific enterprise will not 'protect' the public — it only makes us more vulnerable," Palese said.

Palese and some other researchers question the high mortality rate ascribed to bird flu, saying it more likely reflects deaths among the very sickest patients, ones who headed for the hospital.

Mild cases never showed up in records, they suggest. The death rate from the dreaded 1918 flu was about 0.5% (still very high for the flu — that's one in 200 patients), according to a U.S. Armed Forces Health Surveillance Center review.

On the other hand, smallpox researcher D. A. Henderson of the University of Pittsburgh's Center for Biosecurity in Baltimore wrote in *Nature's* Jan. 19 edition, "We should not publish a blueprint for constructing such an organism." The lab creation, in his estimation, produced "the ultimate biological threat."

### Looking for middle ground

"The real question is, where do we find some middle ground, to make a system that preserves scientific openness but also safety?" Atlas says. "The irony is that we do have the bones of a biosafety system already in place. Everyone seems to forget that."

Under federal law, bird flu must be investigated within a "Biosafety Level 3" lab, requiring special training, equipment, ventilation and oversight. Related regulations require that labs register "select agents," including bird flu.

"Obviously, it went through that process," says spokesman Terry Devitt of the University of Wisconsin-Madison, who notes that the National Institutes of Health approved the research in the first place.



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However, Atlas points out the 2004 National Academy of Sciences report that called for the creation of the NSABB also said extra "biosafety" reviews should be conducted at the university level. Devitt acknowledges this wasn't part of the school's review process.

Some researchers, such as chemical biologist Richard Ebright of Rutgers University, have called for assigning the ferret study virus strains to Biosafety Level 4, the highest level of security.

Worldwide, at least 42 labs investigate bird flu, or bugs just as deadly, according to Lynn Klotz of the Center for Arms Control and Non-Proliferation in Washington, and Ed Sylvester of Arizona State University.

Looking at the history of lab infections, such as the SARS death in 2004 of a student in Beijing who caught the disease from two graduate students infected in a lab, they put the odds of a lab "escape" at 80% within four years. An escape doesn't mean a pandemic, but it does offer one an avenue.

Federal officials, according to Keim, have asked the NSABB to review the safety of communication of similar bird flu infection studies.

"We had a debate a decade ago and decided that this science was too important to restrict," Atlas says. "The real responsibility for control has to come from the scientific community."

### How fake bioterrorism attacks became a real problem

By Yudhijit Bhattacharjee

Source:[http://www.slate.com/articles/health\\_and\\_science/science/2012/01/white\\_powder\\_hoaxes\\_a\\_trend\\_in\\_fake\\_terrorism\\_single.html](http://www.slate.com/articles/health_and_science/science/2012/01/white_powder_hoaxes_a_trend_in_fake_terrorism_single.html)

At first glance, the 53 letters mailed in October 2008 from Amarillo, Texas, to Chase banks around the country looked like the multitude of letters that companies and government agencies receive from regular people every day: addressed to the institution at large and not anybody in particular, an implicit sign of the power differential between hapless sender and indifferent receiver. The content of the Amarillo letters, however, was intended to invert this relationship, at least temporarily. The first of them was opened by an employee at a Chase bank in



Norman, Okla., a little after 11 a.m. on Monday, Oct. 20. A white powder, soft as talcum, spilled out of the envelope, landing on the employee's desk. Inside was a typewritten note that read, in part, "It's payback time. What you breathed in will kill you within 10 days."

The employee recoiled in alarm. Ever since letters filled with anthrax spores killed five people in the United States and sickened 17 in the fall of 2001, the discovery of white powder in packages and mail has come to evoke instant fear of a biological attack. The bank called 911, and police and firefighters rushed to

the building. In short order, hazardous materials personnel wearing gas masks had arrived on the scene.

Almost simultaneously, a similar drama was unfolding at a Chase bank inside a supermarket in a Denver suburb, where another Chase employee opened an identical letter.

When emergency responders ordered an evacuation, dazed customers abandoned their shopping carts in the aisles and checkout lanes to hurry out of the store. Inside, hazardous materials experts collected a sample of the powder

and began running a series of tests to check for anthrax and other biological agents, as well as nuclear, explosive, and chemical threats.

By the middle of the afternoon, the Weapons of Mass Destruction Directorate at the FBI headquarters in Washington, D.C., had received word of similar scenes playing out at more than a dozen other locations in Colorado and Oklahoma. The anxiety sparked by the letters died down within hours as field tests showed the powder to



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be harmless, although it would still take two to three days of further testing at regional labs to completely rule out a hazard. More letters postmarked at Amarillo continued to arrive over the next few days; one was cut open by a machine at a Chase card payment facility in Elgin, Ill., sending white powder swirling about the room.

In all, 64 addresses around the country had been targeted—including the U.S. government's Office of Thrift Supervision and the Federal Deposit Insurance Corporation—costing local, state, and federal agencies tens of thousands of dollars in resources and manpower deployed to respond to the scares. The specific motivation behind the letters would become clear only in the months ahead, but a link to the financial crisis was evident. The attacks were in effect an act of faux terrorism, a vengeful form of protest somewhere between a threatening phone call and outright arson. They were also a kind of criminal offense that federal law enforcement officials have sought to prosecute aggressively in recent years.

No matter how benign it may be physically, a white powder packed into a letter or package has become in the post-9/11 world what you might call an interactive weapon: an ordinary substance transformed by fear into an agent of psychological warfare. In the decade following the 2001 anthrax attacks, white-powder hoaxes have proliferated into an epidemic in the United States, perpetrated in most instances to make a statement or exact revenge. There are more than 800 incidents reported across the country every year—involving baking soda, sugar, ground-up antacids, corn starch, baby powder, dried toothpaste and every other manner of white powder available. Although only a small percentage of these rise to the level of a federal investigation, the volume is large enough that the FBI's WMD Directorate—created to investigate WMD crimes—finds itself having to spend nearly 60 percent of its time on such cases.

The white-powder phenomenon arose in the wake of the 2001 anthrax mailings, which terrorized a nation already shaken by the strikes on Sept. 11. Hoax threats had of course been around for a long time – there were many occasions in the '90s when emergency responders had to evacuate courthouses following a verbal or written threat of a biological agent having been released in the building. White powder lent credibility to the

hoax by leaving less to the imagination. “Now you actually had a substance that had to be tested,” Donald Alway, an FBI agent with the WMD Directorate told me. “It quickly gained notoriety because of the copycat factor.” Within a year of the original anthrax letters, there were 50,000 incidents. “We had to set up special call boxes to deal with the volume,” Alway said.

The tsunami died down eventually, but the idea of white powder as ammunition had taken root, a new expression in the dictionary of the disgruntled, the annoyed, the enraged and the anarchic. Today, hardly a week goes by without an anthrax scare at a government office or a business, an individual residence or a public place. Agents at FBI's field offices and the WMD Directorate find themselves reacting to the incidents paradoxically, with a mix of tedium and high alert. “Every time we get a call, it evokes a sense of 'here we go again,’” Vahid Majidi, a chemist who heads the WMD Directorate, told me. At the same time, he said, officials must respond to every white-powder attack as a potential terrorism threat.

Most white-powder hoaxes are themselves a reaction to situations ranging from the merely irksome—like receiving junk mail from a company—to the deeply troubling. Angry spouses have used fake anthrax as a tool of revenge, as have individuals out to settle a score with an employer or an abusive boss. In many instances, white powder letters are a way to make a political statement. “Every year around tax filing time, people annoyed with the tax system will send their returns back with white powder and hate mail to the IRS,” Michael Varacelli, an FBI special agent, told me. When the stimulus package was passed by Congress in 2009, there was a spike in white-powder mailings to lawmakers and government officials. The health care debate in 2010 generated another big wave.

Inmates of state prisons have been known to send white-powder letters to acquire a federal charge, so that they might be transferred to a federal prison, where conditions are better. Occasionally, the hoaxer is simply looking for attention, as was the case involving an aspiring rap artiste who placed envelopes filled with white powder on the windshields of 30 vehicles in a hospital parking lot in Miami in April 2009. Each had a smiley face on the back, and a note inside that said “define



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anthrax.” The hospital was shut down for 12 hours when somebody discovered the envelope and brought it inside the building. The FBI tracked down the perpetrator, 19-year-old Jerron Moffitt, and an accomplice a few days later. “Ultimately, what it came down to was that the individual was looking to work his way into jail to earn some street credibility as a rapper,” Greg Tarbert, an FBI agent who helped with the case, said. The plan evidently worked: In July, 2009 Moffitt was handed down a three-year prison sentence.

The price exacted on victims of white powder hoaxes is at a minimum a few hours of anxiety while field tests are completed. During this period, it is not uncommon for victims to develop psychosomatic symptoms like itching, burning, and shortness of breath—the opposite of a placebo response. Some are put on antibiotics as a precaution before conclusive lab results come in, which can take two days or longer. “Even if the field screening tells you with a 98 percent certainty that it is baking soda, to the victim that almost means nothing,” Alway told me.

Three days after the first Amarillo letters were received, the United States Postal Inspection Service announced a \$100,000 reward for information that could help find the sender. The FBI assigned the case to a special agent in Texas named John Whitworth, who had in the months prior investigated a much rarer, real WMD case involving the attempted sale of a large consignment of cyanide bricks.

Whitworth quickly learned what the different entities targeted by the attack—JPMorgan Chase, the Office of Thrift Supervision and FDIC—had in common. The link was Washington Mutual or WaMu, a bank that had grown into the country's largest savings and loan association over the prior decade before collapsing in the weeks before the letters were sent out. OTS seized WaMu on Sept. 25, 2008 and placed it under the receivership of the FDIC, which then sold it to Chase for a price so low that WaMu shares were rendered nearly worthless.

Whitworth eventually traced the letters back to a 48-year-old man named Richard Goyette who worked at an Albuquerque power plant and lived in a trailer. A shareholder of Washington Mutual, Goyette lost \$65,000 when WaMu was sold. FBI agents arrested Goyette on Feb. 1, 2009, as he was about to board a flight from Albuquerque to Chicago, where he

was to interview for a job. “He told us that when he first got upset about the Washington Mutual deal, he tried to address it by sending letters to his Congressman and the FDIC, and he was very disappointed with the boilerplate responses he got,” Whitworth said. “He got very frustrated and angry and decided to lash out.”

Goyette saved money compulsively, living like a broke college student rather than somebody who owned stock worth tens of thousands of dollars. He didn't indulge even in small luxuries, making spaghetti on the weekends and eating leftovers the rest of the week. Even in executing his plot, Goyette showed a remarkable thriftiness. After typing the threatening notes and addresses on a computer at the University of New Mexico, he saved the files on a thumb drive and drove to Central New Mexico Community College to print them because printouts would cost a few cents a page at UNM but were free at the other campus. Back at his trailer, he put on gloves and scooped out some ant killer powder from an old container he had lying around.

I asked FBI agents if finding and punishing hoaxers like Goyette was helping to stem the tide of such incidents, or if it was simply making white-powder hoaxes a bigger drain on government resources than they would otherwise be. Could it be that the time spent by law enforcement in tracking down perpetrators of a white-powder hoax would be seen as an added incentive by those looking to commit the crime?

No one would give a clear answer to that question, but agents explained that ignoring hoaxes or hoaxers was not an option for the government. “We have to look at every white powder letter as the next big Amerithrax attack,” the FBI's Mike Varacelli told me. “There's really no way to rule that out unless you go through the first 72 hours of response.” He also did not doubt that punishing hoaxers was worth the effort. “It has acted as a significant deterrent,” he said.

Moreover, the FBI's Don Alway said, hunting down the perpetrators was important for those who had opened the hoax letters. “If the victims perceive themselves as having been attacked, often they as the victim want to see justice prevail,” he told me. “They don't want it whitewashed. They went



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through days or weeks of not knowing whether they were exposed, taking unneeded antibiotics. There may not have been a biological agent, but a crime has still been committed.”

Indeed it had. On June 4, 2009, Goyette was sentenced to 46 months in federal prison after pleading guilty to two counts of making a threat and perpetrating a hoax. He was also ordered

to pay about \$88,000 in restitution to fire departments, hazardous materials teams, and other responders. Coincidentally, the judge who ruled in the case had herself been the target of a white powder letter in 2002, sent by a prison inmate that she had sentenced previously. All that letter did was earn the inmate some additional years in prison.

*Yudhijit Bhattacharjee is a staff writer at Science magazine, and a contributor to the New York Times, the Atlantic, Wired, and Discover.*

### How Ready Are We for Bioterrorism?

By Wil S. Hylton

Source: [http://www.nytimes.com/2011/10/30/magazine/how-ready-are-we-for-bioterrorism.html?\\_r=1&smid=fb-share&pagewanted=all](http://www.nytimes.com/2011/10/30/magazine/how-ready-are-we-for-bioterrorism.html?_r=1&smid=fb-share&pagewanted=all)

A few days after 9/11, a retired Air Force colonel named Randall Larsen entered the northwest gate of the White House, crossed a courtyard to the Eisenhower Executive Office Building, stepped through the front door and stopped dead in his tracks.

In place of the usual security checkpoint, there was an elaborate upgrade that included not only metal detectors but also machines to sniff out radiation and explosives, elaborate pat-downs and a mandatory search of all personal belongings. It was the search that worried Larsen most.

After passing through a body scan, he stood quietly while a guard thumbed through the contents of his briefcase. It was mostly books and papers, but after a few seconds, the agent pulled out a respirator mask and shot Larsen a quizzical look. “That’s just for demonstration,” Larsen said quickly. “You saw Mayor Giuliani wear one at ground zero, right?” The agent turned the mask over a few times, then stuffed it back in the briefcase. Seconds later, Larsen was through.

Inside the building, he followed a long corridor to a room where Vice President Dick Cheney and members of the national-security staff

soon joined him. Also in the room were Tara O’Toole, who is now the Obama administration’s top official for biodefense research at the Department of Homeland Security, and Thomas Inglesby, who runs the Center for Biosecurity. Three months earlier, Larsen, O’Toole and Inglesby collaborated on a national-security exercise to simulate the effects of a smallpox attack. Now, with the twin towers in ashes, they had come to brief the vice president on their findings.

As O’Toole began the presentation, Larsen studied Cheney’s expression. The vice president showed no reaction as O’Toole listed the officials who participated in the simulation, the complications they encountered as they tried to develop an emergency response and the arguments

that broke out as they watched the disease spread beyond control. She concluded by telling the vice president that the country was unprepared for a biological attack.

Cheney nodded. “O.K.,” he said. “But what are we looking for? What does a biological weapon look like?”

At this, Larsen reached into his briefcase and pulled out a small test tube. “Mr. Vice President,” he said, “it looks



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like this.” Inside the tube was a weaponized powder of *Bacillus globigii*, almost genetically identical to anthrax. “And by the way,” Larsen said, “I just smuggled this into your office.”

At one of the most secure buildings in the world, in a moment of unprecedented alarm, the White House guards had searched Larsen’s briefcase — and never even saw the powder. “They were looking for the wrong things,” Larsen says now. “They still are.”

**The specter of a biological attack** is difficult for almost anyone to imagine. It makes of the most mundane object, death: a doorknob, a handshake, a breath can become poison. Like a nuclear bomb, the biological weapon threatens such a spectacle of horror — skin boiling with smallpox pustules, eyes blackened with anthrax lesions, the rotting bodies of bubonic plagues — that it can seem the province of fantasy or nightmare or, worse, political manipulation. Yet biological weapons are as old as war itself. The ancient Hittites marched victims of plague into the cities of their enemies; Herodotus described archers’ firing arrows tipped with manure. By the 20th century, nearly every major nation developed, produced and in some cases used a panoply of biological weapons, including anthrax, plague, typhoid and glanders.

A decade after the 9/11 attacks, it is easy to forget the anthrax letters that sprang up just a few weeks later and to dismiss the fear that swept the country as a relic of a fragile moment that already belongs to history. But in the wake of those events, many national-security experts began to reconsider the risk of a biological attack — and reached some unsettling conclusions. Since the collapse of the Soviet Union, most scientists had assumed that the difficulty of building a bioweapon was far beyond the ability of a terror cell, but looking again in the early 21st century, many experts came to believe that advances in laboratory technology brought the science within reach. “What took me three weeks in a sophisticated laboratory in a top-tier medical school 20 years ago, with millions of dollars in equipment, can essentially be done by a relatively unsophisticated technician,” Brett Giroir, a former director at the Defense Advanced Research Projects Agency (Darpa), told me recently. “A person at a graduate-school level has all the tools and technologies to implement a sophisticated program to create a bioweapon.”

Even some nuclear experts began to wonder if the risk of a biological attack had eclipsed the nuclear threat. Graham Allison, the founding dean of Harvard’s John F. Kennedy School of Government and a leading expert on nuclear proliferation, told me: “Nuclear terrorism is a preventable catastrophe, and the reason it’s preventable is because the material to make a nuclear bomb can’t be made by terrorists. But in the bio case — oh, my God! Can I prevent terrorists from getting into their hands anthrax or other pathogens? No! Even our best efforts can’t do that. I think the amazing thing is that one hasn’t seen more bioterrorism, given the relative ease of making a bioweapon and the relative difficulty of defending.”

How a biological attack might unfold depends on a number of variables, including which biological agent is used, the extent of its weaponization, the amount released and the method of delivery. Some agents, like the smallpox virus, are highly contagious and could spread widely from a small release. Others, like the plague and tularemia bacteria, are not typically contagious but are relatively easy to make into wet slurry and disperse. Some of the most vivid descriptions of how such an attack might look come from the national-security exercises used to develop biodefense policy. The exercise briefed to Dick Cheney in 2001, for example, was known as Dark Winter and was coordinated by the Center for Strategic and International Studies and the Johns Hopkins Center for Civilian Biodefense Studies. It took place over two days at Andrews Air Force Base, with former Senator Sam Nunn playing the role of president, David Gergen acting as national-security adviser, the former C.I.A. director James Woolsey leading intelligence and the retired four-star general John Tilelli serving as chairman of the Joint Chiefs of Staff. As the smallpox virus began to appear, first in Oklahoma and then in pockets across the nation, the participants quickly discovered that the country had no standing response plan and only enough vaccine to protect 5 percent of the public. Within weeks, as many as a million people in the United States were estimated dead.

Not all experts are convinced that simulations like Dark Winter offer a realistic view. Milton Leitenberg, a prominent arms-control expert, has argued that the



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exercise relied on faulty premises to increase the death toll and “assure a disastrous outcome.” In particular, Leitenberg objects to the rate of secondary transmission assumed in the Dark Winter exercise. This is the figure to describe how many additional people each patient would infect, and it is highly contextual, depending on biological traits, like the genetic vulnerability of the target population; social habits, like the number of personal interactions by each victim; and meteorological conditions, like the weather and the time of year. Because the exercise was set in winter, which is favorable to smallpox, and because Americans are not routinely vaccinated, planners assumed a transmission rate of 10 new infections by each victim. Leitenberg says that number should be three. Other estimates vary. The Centers for Disease Control and Prevention uses a range of five to seven; the last comparable cases of smallpox to appear in Europe averaged between 9 and 17; and the authors of a 1999 article in *Science* magazine used the same figure as Dark Winter. But if Leitenberg is right, the death toll from the exercise would be much lower — most likely in the tens of thousands.

Whatever the transmission rate of smallpox, the more salient question for biodefense may be whether an attack will happen at all. On this, the expertise of microbiologists is limited, but there is surprisingly broad agreement among the officials in charge of national security over the past 10 years. Since 2001, senior members of both the Obama and Bush administrations, who have reviewed classified intelligence, have consistently placed biodefense at or near the top of the national-security agenda. In 2004, a report from the National Intelligence Council warned, “Our greatest concern is that terrorists might acquire biological agents.” Michael Chertoff, the secretary of Homeland Security between 2005 and 2009, told me, “In terms of catastrophic attacks, bio was at the top of the list.” In 2008, the director of national intelligence, Adm. Mike McConnell, described a biological attack as “my personal greatest worry.” In 2009, McConnell’s successor in the Obama administration, Dennis Blair, warned the Senate Select Committee on Intelligence that “the terrorist use of biological agents represents a growing threat.” In November 2009, the National Security Council estimated that a biological attack could place “hundreds of thousands of people” at risk of death and

cost more than \$1 trillion. Heidi Avery, a top biodefense official in the White House, told me recently that biological terrorism poses “the ultimate asymmetric threat; it should be considered in the same class as the nuclear threat.” And a report by the Congressional Commission on the Prevention of Weapons of Mass Destruction Proliferation and Terrorism, formed in 2007, concluded: “To date, the U.S. government has invested most of its nonproliferation efforts and diplomatic capital in preventing nuclear terrorism. The commission believes that it should make the more likely threat — bioterrorism — a higher priority.”

To heighten the nation’s biodefenses, the federal government has invested more than \$60 billion since 2001, developing and distributing air sensors, educating doctors about the symptoms of bioterror pathogens and distributing medical supplies for biodefense to hospitals around the country. At the root of these efforts is a list of specific biological agents, known as “material threats,” that have been identified by the Department of Homeland Security as the most urgent pathogens to defend against. These include smallpox, anthrax, ebola, plague and a handful of lesser-known organisms.

Since 2004, the Department of Health and Human Services has overseen a program called Project BioShield to develop and stockpile vaccines and treatments, known collectively as “medical countermeasures,” to defend against the pathogens. After seven years, the achievements of BioShield are measurable. According to Robin Robinson, who directs the countermeasure program at Health and Human Services, there is currently enough smallpox vaccine in the stockpile to inoculate every United States citizen; enough anthrax vaccine to respond to a “three-city attack”; and a variety of therapeutic drugs to treat the infected. Yet many other goals of the program are incomplete and, in some cases, not even begun. After spending hundreds of millions of dollars, for example, to develop a new vaccine for anthrax that would replace the controversial formula developed 50 years ago by the Army — which is known to have serious side effects and has never been approved for children — there is still no new vaccine. There also are no new broad-spectrum antibacterial drugs in the stockpile and no new





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antivirals. “We don’t even have candidate products” for antivirals, Robinson told me.

Last year, two separate review boards evaluated the state of the country’s biodefense program, and each report came back scathing. The National Biodefense Science Board, a nonpartisan task force created in 2006 to oversee countermeasure development, delivered a 103-page report to the secretary of Health and Human Services, Kathleen Sebelius, describing “lack of urgency,” “lack of coherence,” “lack of prioritization” and “lack of synchronization.” The title of the report was “Where Are the Countermeasures?” And the commission created by Congress in 2007 to evaluate all defenses for chemical, biological, radiological and nuclear threats delivered its final report, offering letter grades in several categories. For attention to the safe storage of toxins, the government received an A. For openness and transparency, a B-minus. For biodefense, the grade was an F.

“The lack of U.S. capability to rapidly recognize, respond and recover from a biological attack is the most significant failure identified in this report card,” the commission wrote. “Especially troubling is the lack of priority given to the development of medical countermeasures — the vaccines and medicines that would be required to mitigate the consequences of an attack.”

Even within the biodefense community, there is a widespread sense that the countermeasure program is failing. Early this year, Sebelius described the effort as “full of leaks, choke points and dead ends,” and in more than 100 interviews with senior officials from each of the federal agencies related to countermeasure development — including past and current program heads at the White House, the Pentagon, the National Institutes of Health and the Departments of Homeland Security and Health and Human Services — I heard an endless series of grim diagnoses on the health of the nation’s biodefenses. As one senior official in the Obama administration put it: “We need a new model. This is never going to work.”

**Since the 1990s**, the United States’ approach to biodefense has been redesigned at least three times. Each time, the new approach was presented as a remedy; each time, the remedy failed to cure.

The story that circulates among officials is that the first modern president to focus on

biodefense was Bill Clinton in 1998: after staying up all night reading “The Cobra Event,” by Richard Preston, a thriller about a terrorist strike with modified smallpox, Clinton called a high-level meeting of scientists, ordered the F.B.I. to review the plot and began pushing copies of the book on other politicians. By 1999, the White House and Congress had created a new division of the C.D.C., known as the National Pharmaceutical Stockpile, to store medicines for crises. But in the absence of an actual crisis, financing for the stockpile was fairly minimal. By summer 2001, it held only 15 million doses of smallpox vaccine and little else.

After the anthrax letters in October 2001, everything changed: by 2002, spending on biodefense rose to more than \$4 billion, from \$633 million, with an emphasis on expanding the stockpile. One of the program’s first priorities was to increase the supply of smallpox vaccine. Smallpox is regarded by biodefense experts as the most threatening biological weapon, because it can spread as easily as the flu and kills about one in three victims. To expand the stockpile, the Bush administration called in a legendary epidemiologist. In the 1960s and ’70s, D. A. Henderson led the World Health Organization’s program to eradicate smallpox in nature, chasing outbreaks through villages in Brazil, the mountains of Yugoslavia and the jungles of India before finally containing the last known cases in the Horn of Africa in 1977. Today, smallpox is the only human infectious disease ever eradicated by science.

Returning to public service in 2001, Henderson called in another legend of microbiology, Maj. Gen. Philip K. Russell, a former commander of the Army’s medical research program and a figure so revered that one commanding general was known to keep a bumper sticker on his wall that read, “What would General Russell do?” Between 2001 and 2004, Henderson and Russell, along with leaders at the National Institutes of Health and civilian research laboratories across the country, raced to develop new production techniques and expand the smallpox-vaccine supply. Today, the stockpile holds more than 300 million treatment courses.

Officials at Health and Human Services were also determined to produce and



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store a large supply of anthrax vaccine, but they were unsatisfied with the existing formula. Some veterans blamed the vaccine for gulf war syndrome, citing research at Tulane University, and after vaccination was made mandatory in 1998, hundreds of service members actually refused the shots. Some resigned from service in order to avoid it; a few were court-martialed for insubordination. In 2002, the most comprehensive study of the vaccine, by the Institute of Medicine at the National Academy of Sciences, concluded that while the vaccine was “reasonably safe,” a new vaccine was “urgently needed.”

Developing a new vaccine is vastly more complicated than increasing the supply of one that exists. In the pharmaceutical industry, the cost to develop a new drug or vaccine averages about \$1 billion. To encourage companies into development, the Bush administration in 2003 announced the creation of a special fund within Project BioShield, filled with \$5.6 billion for the purchase of countermeasures like a new anthrax vaccine, yet by the middle of 2004, not a single large pharmaceutical company had begun development. “The belief was: Fund it and they will come,” Senator Richard Burr, who is prominent in biodefense, told me. “Well, they didn’t come.” Anthony Fauci, the director of the National Institute of Allergy and Infectious Diseases (N.I.A.I.D.) at the National Institutes of Health, told me \$5.6 billion was simply not enough money. “The Mercks and the GlaxoSmithKlines and others looked at it and said, ‘Forget it,’” he said.

Officials at Health and Human Services turned to smaller drug companies, instead. In November 2004, they offered the first major contract under BioShield to a young company called VaxGen, based in California. If VaxGen could develop and deliver a new anthrax vaccine, the government promised to purchase 75 million doses for \$877 million.

From the outset, the choice of VaxGen proved controversial. The company had never produced a drug before, it had been delisted from Nasdaq a few months earlier for failure to file timely financial statements and it was embroiled in an ethical dispute in Thailand over human testing of another drug. But VaxGen did have certain advantages, not least that it had been working on a new anthrax vaccine for two years already, financed by \$100 million from Fauci’s N.I.A.I.D.

To add another layer of confidence to the deal, officials at H.H.S. structured the VaxGen contract with unusually stringent terms. During the proposal process, VaxGen executives submitted a 1,000-point outline to show the approach they hoped to take. H.H.S. officials now made the outline binding: according to the former chief executive of VaxGen, Lance Gordon, officials notified the company two weeks before the deal became public that if VaxGen could not stick to the plan, the company risked breach of contract. In retrospect, Gordon told me, VaxGen never should have taken the terms. “It’s impossible,” he said. “In the history of mankind, nobody has been able to predict 1,000 tasks for hundreds of people over a five-year period. Life doesn’t work that way.”

Vaccines especially don’t work that way. Their development is notoriously complex and requires frequent adjustment as complications arise in the lab. Predictably, within months of signing the contract, VaxGen slipped off schedule and was technically in breach. At the same time, officials at H.H.S. were discovering that the VaxGen contract did not add to the countermeasure program’s appeal: by 2006, the third year of the contract, not one other major project was in development under BioShield.

It was time for a third overhaul. In the summer of 2006, Burr instructed his legislative staff to figure out what was wrong in the countermeasure program. He came to believe that the problem was institutional. If the early research at the N.I.H. was producing valuable leads for new drugs, and the money in Project BioShield offered an incentive at the end of development, then what was missing was an agency in between to help guide companies across what Burr’s staff called the Valley of Death. “What we saw,” Burr says now, “was that we had to become more than a procurer. We had to become a *partner*.” That July, Burr introduced a bill to establish a new agency at H.H.S., known as the Biomedical Advanced Research and Development Authority (Barda), with an annual budget of \$1 billion, to finance the development of countermeasures and steer companies through the gantlet of clinical trials and F.D.A. approval. That December, the bill passed both houses of Congress unanimously — but even as



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executives at VaxGen watched to see how the new agency might help them, H.H.S. announced that the VaxGen contract would be canceled.

Five years later, the cancellation of that contract is still a matter of fierce debate in biodefense circles. Many experts say that the decision had less to do with science than politics. Scott Lilly, a senior fellow at the Center for American Progress, recently studied the role that lobbying may have played in VaxGen's demise. Between 2004 and 2006, Lilly writes in a new study, the company that produced the old anthrax vaccine, which is now called Emergent BioSolutions, employed an army of lobbyists to undermine the VaxGen contract. "Each time VaxGen's test results were less than had been hoped for," the report says, "Emergent pounded VaxGen with a highly orchestrated campaign to overstate the problems and discourage government support of the effort."

Executives at Emergent acknowledge the campaign against VaxGen but say it was not directed at the company so much as the structure of the BioShield contract. "Our issue was not with respect to VaxGen," the president of Emergent, Daniel Abdun-Nabi, told me. "It was with respect to the approach of moving to a single supplier with an unproven technology. We thought it was premature. We thought it added risk to the country." According to Abdun-Nabi, the company's message to legislators was: "You shouldn't put all your eggs in one basket. There's a role for multiple suppliers." The fact that this lobbying contributed to the implosion of VaxGen and another five years in which Emergent was the only supplier of anthrax vaccine, which has earned the company \$1.5 billion, also troubles Abdun-Nabi, he said. "It puts us in a very difficult position to be the sole supplier. I mean, the whole nation is reliant on Emergent. And in one sense, we're very honored to be in that position, but it's a tremendous responsibility."

General Russell, who led the early countermeasure program, told me: "It was Emergent lobbying that killed VaxGen. Period. Emergent bought the Congress. Congress killed VaxGen." Several current officials share Russell's view. When I asked one senior biodefense official about the lack of a new anthrax vaccine, the official nearly exploded: "Why don't we have a second-generation anthrax vaccine? The reason is Emergent

lobbying!" Even the director of Barda, Robin Robinson, acknowledged that politics played a role in the decision. "Should we have kept it? I think there's a long debate," he said. "They had brought in some really top-flight people in there, and Lance Gordon was really good at judging talent. Unfortunately, there was a lot of political pressure."

Soon after the VaxGen contract failed, the company folded into another, and Emergent bought the rights to develop the new anthrax vaccine it had spent three years lobbying against. Abdun-Nabi told me his company was still trying to develop that vaccine, but critics question whether Emergent, which signed another contract this month to deliver \$1.25 billion more of the old vaccine to the stockpile, is pursuing the replacement vaccine as enthusiastically as possible. "They bought the technology and buried it," Russell says. "We are five or six years behind where we should be. We should be working on a third-generation vaccine."

**If the pursuit** of a new anthrax vaccine has been halting, the pursuit of many other vaccines has halted altogether. In fact, other than the vaccines for anthrax and smallpox, there are no vaccines in the stockpile for any other agents on the material-threat list, nor are any of those vaccines in the advanced development program, nor will any of them enter the program any time soon.

Robin Robinson, the director of Barda, is a big, easy fellow, with a trim goatee and a light Southern drawl. The first I met him, two years ago, we sat at a long table with his new boss, Nicole Lurie, who had just been appointed by the Obama administration as the assistant secretary for countermeasure development. Lurie had an air of unpretentious surety and a sudden, piercing laugh, and she and Robinson wasted no time trying to hide the failings of their program. Although Barda was established in 2006 with an annual budget of \$1 billion, it never actually received the money. In 2006, the agency received \$54 million; in 2007, \$104 million; in 2008, \$102 million; and by the time I sat down with Robinson and Lurie in 2009, Barda had received in four years about half of what it was intended to receive in one. Lurie reminded me of the high cost required to develop drugs. "What does it take in the pharmaceutical industry?"



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she asked. “A billion dollars per product! The advanced development part of that might be about \$350 million, so that’s the part that we should be funded for.”

“For each product!” Robinson said.

“For each product,” Lurie agreed. “So, we’re nowhere near it. We’re nowhere near the level that we need to be, to be able to protect the American public.”

In the two years since that conversation, financing for Barda has gone up, but with many of the goals still incomplete and criticism pouring in — two weeks ago, the Bipartisan W.M.D. Terrorism Research Center in Washington gave the agency a D for performance — the affinity between Robinson and Lurie is less apparent. Lurie, for example, has removed from Barda all contracting officers, instructing them to report to her instead of Robinson. This many seem minor, but companies working with Barda suggest that it has led to ballooning bureaucracy at an agency that was specifically created to attract business. “Now you really have two bosses,” Eric Richman, the C.E.O. of PharmAthene, which is one of four companies still working on a new anthrax vaccine, told me. “We actually spend as much time managing our contracts as we do developing our drugs. It’s a real burden.” Other C.E.O.’s echoed Richman’s concern, and friends of Robinson’s suggest that the move has compromised his ability to lead the program effectively. “This becomes very frustrating for him,” an H.H.S. official told me. “What does he tell the companies — ‘Now I have to go ask for permission’?”

But the gap between Robinson and Lurie also seems to extend to basic matters of policy and fact. Nowhere is the division in countermeasure development more apparent than on the question of vaccine development. Because a vaccine is only effective against a single pathogen, and because development is so expensive, Barda has focused much of its energy on therapeutic drugs — which may not offer protection to the healthy but can treat a broad range of diseases.

When I visited Barda recently to speak with Robinson and Lurie again, I heard two very different explanations for the move away from vaccines. Lurie described the decision as an unfortunate but necessary concession to the budget. “You’d like to have vaccines further along in the pipeline for all the threats we have, and you’d like to have a way to manufacture

them quickly,” she told me. “But I don’t think there’s anywhere near enough money in the system.” Yet Robinson insisted that the move would have happened even if financing was not an issue. “There are only two biothreats — smallpox and anthrax — that we feel vaccination is the appropriate way to go,” he said. When I asked if that meant he would not even *want* a vaccine for other agents, like tularemia, he said: “I don’t think there’s a case to be made for that. What we’re doing is therapeutics.”

The debate over vaccine development is by no means limited to Robinson and Lurie. Ten years after the anthrax attacks, and with more than \$16 billion committed to countermeasure development, there is still broad disagreement among officials over whether the stockpile should include other vaccines. When I asked Tara O’Toole, who leads the Science and Technology Directorate at the Department of Homeland Security (where the list of biological material threats is created and the countermeasure process begins) whether she believed the stockpile should include vaccines for other agents, she snapped: “Vaccines are essential. If there’s a bio attack, people are going to want their children vaccinated. It’s the only defense against reload.”

By “reload,” O’Toole was referring to a concept first developed by Richard Danzig, who is a former secretary of the Navy under Bill Clinton and one of the leading intellectuals in biodefense. Danzig currently serves as chairman of the board at the Center for a New American Security, sits on the Defense Policy Board at the Pentagon and is a member of the President’s Intelligence Advisory Board. The reload concept, he told me recently, describes a fundamental difference between biological weapons and all other weapon types. “When we talk about terrorists’ acquiring a nuclear weapon, we’re talking about just that — they’re acquiring a weapon,” Danzig said. “With biological weapons, we’re talking about acquiring the ability to *produce* weapons. So if you acquire the ability to produce 100 grams of anthrax, you can keep doing that. You really have to think about biology as potentially the subject of a *campaign*, where somebody keeps attacking, rather than a one-shot incident.” When I asked Danzig how the reload concept influences the



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debate over vaccines, he said: “You can reassure people that there will be antibiotics available for them, and you can keep producing ever greater numbers of antibiotics. But you can see that if you had the ability to vaccinate people and protect them, it would provide a larger degree of protection. So to the extent that these things come to pass, I think there will be more pressure to develop vaccines.”

Brett Giroir, who directed the Defense Sciences Office at Darpa and is now vice chancellor for strategic initiatives at Texas A&M University, shared Danzig and O’Toole’s belief that other vaccines should be developed. “Vaccines are critical components of a biodefense posture, and anybody who thinks they’re not isn’t thinking seriously about how we approach this,” Giroir told me. “If we got sprayed with tularemia in College Station and a biodefense sensor went off, that would be an ideal opportunity for vaccine.”

Tularemia is an especially difficult case. Found naturally in animals around the world, it can be transmitted during butchering and spread by ticks. Although it is highly infectious, it is seldom lethal. But during the 1950s and ’60s, Army researchers became interested in weaponizing tularemia.

It has been more than 40 years since the American bioweapons program shut down, and many of the details remain classified. Last fall, the final director of the program, William Patrick, died of cancer at 84, but in the final months of Patrick’s life, Robert Kadlec, the former biodefense chief in the second Bush White House, and Joel McCleary, a former aide to Jimmy Carter, spent hundreds of hours interviewing him on the history and accomplishments of the program. Over the past year, McCleary has delivered a presentation on the bioweapons program to members of Congress, the White House national-security staff and senior officials at the Departments of Defense, Homeland Security and Health and Human Services. One night this summer, I stopped by McCleary’s house to see the presentation myself.

Finding McCleary’s home in Georgetown was a bit like passing through the looking glass. I started down a cheery row of town houses, but as I approached the right number, I realized there was no house — just a gravel path that trailed away from the street with vines and shrubs surrounding it. I followed the path and came to a gate and, finding no bell or button,

fiddled with an iron latch to enter a lush green courtyard shaded by a walnut tree. It was as if I made a wrong turn in Georgetown and wandered into the English countryside. In the center of the yard sat a small cottage, as wide as it was tall. I rang the buzzer a few times and rapped a brass knocker on the door, and after a few minutes, McCleary burst outside in a pair of bright red slippers. He is a large man, brimming with energy, and we stood in his yard admiring the flowers for a moment, then retreated inside to review the last known record of the American quest for a microbial army.

It was immediately apparent that the Army’s research on tularemia went far beyond what is commonly known. In hundreds of experiments, scientists weaponized the bacteria to extraordinary potency and then proceeded to mix the slurry with another agent, known as S.E.B., which multiplied the effects logarithmically, shattering the human immune system just as the tularemia plunged in. In several large outdoor tests, scientists drifted clouds of tularemia over cages of live monkeys to evaluate the infectivity. At high doses, the weaponized bacteria were determined to have an incubation period of just a few hours. If left untreated, the combination of tularemia and S.E.B. was projected to cause death within the same period. Patrick called these “killing winds.” In one video, he calmly warned, “Between 50 and 60 pounds of freeze-dried tularemia produced in our production facility would eliminate about 60 percent of the population of London, England.”

When I asked Robinson, who knew Patrick and has seen McCleary’s presentation, whether the extreme weaponization of tularemia suggests the limits of a therapeutic response and a role for vaccination, Robinson became circumspect. “I’ve got to be careful on this one,” he said, “because there is classified information.” Then he went on to explain that Barde is considering the possibility of such an attack but still hopes to respond by treating the sick, rather than by vaccinating the healthy. “What we’re doing,” he reiterated, “is therapeutics.”

To date, the United States has never developed an original vaccine for tularemia. Instead, for the past 50 years, scientists who study tularemia must be vaccinated with a weakened version of the bacterium, which was first obtained through mysterious



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means from the Soviet Union during the early days of the cold war and then modified. But today, supplies of the live vaccine are running thin. In fact, they are virtually gone. Although some lab workers still receive it, the official literature of the C.D.C. lists the tularemia vaccine as “not currently available,” and Karl Klose, who runs a tularemia lab at the University of Texas, San Antonio, told me that federal research into tularemia has dwindled over the past few years. “They’re basically just abandoning the effort,” he said. “It’s like the A.D.D. has kicked in.”

There is one vaccine candidate for tularemia currently in development. Although it is not a novel product and represents a different formulation of the old Soviet vaccine, it is currently in clinical trials at several locations around the country. Typically, the point at which a product becomes eligible for all the support and financing of the advanced development program at Barda is when the product enters Phase II testing. The new tularemia product entered Phase II this fall, but without interest from Barda, it has remained under the auspices of the early development program at N.I.A.I.D. If this seems organizationally confusing, it makes sense in at least one way. Since 2002, the financing for N.I.A.I.D. has outpaced that for advanced development by as much as 15 to 1. Partly, this is a result of N.I.A.I.D.’s being an older, established institution; partly it is a consequence of the institute’s powerful director, Fauci, who has led the agency since 1984 and is sometimes called the J. Edgar Hoover of biology. On the heels of the anthrax attacks in 2001, Fauci vigorously promoted N.I.A.I.D. as the best agency to lead countermeasure development and since 2003 has received about \$1.6 billion each year for biodefense research. Some of that money goes into projects like the tularemia study, which would not be financed otherwise. Much more has gone into other kinds of projects entirely. A close look at Fauci’s budget last year shows that the director has steered about 70 percent of his biodefense funds toward research into natural disease, including AIDS, SARS and malaria — choosing to define “biodefense” however he likes.

The offices of N.I.A.I.D. lie within the sprawling N.I.H. campus in Bethesda, Md., just below the rim of the Washington Beltway. Among the stately grounds of the N.I.H., the

N.I.A.I.D. building is mostly remarkable for how unremarkable it is: the exterior is smudged with mildew and laced with steel electrical conduit, and the corridors are dim and yellowing with age. One day recently, as I stood with Fauci in his seventh-floor office, he paused to admire the dishevelment around him. “Look at this!” he cried, running a hand over the dented surface of his desk. “I inherited this from my predecessor!” He pointed to an old sofa in the corner. “If there’s ever a Congressional investigation, I don’t want them to say I spent it all on myself!”

Fauci is a small, muscular man with an outsize manner. He is from New York in the most obvious ways. After three decades leading one of the most prestigious research programs on earth, he retains a booming Brooklyn patois that sounds, even when he is discussing matters of virulence and pathogenesis, as if he is shouting a pizza order to the back. As we sat together in his library, he explained that although he has overseen most federal spending on countermeasure development since 2002, he does not fully embrace the mission. The list of material threats, he said, reflects an outmoded way of thinking. “It’s less of a priority to say, ‘O.K., now here’s our menu for the Strategic National Stockpile,’ ” Fauci said. “We call that the military model.” He added, “Do we have this little thing in the stockpile or not? I don’t judge the safety of the country on that basis. To me, the idea of a naturally occurring threat is infinitely greater.”

Many agents on the list, Fauci said, were a product of the cold war, when the U.S. military kept a list of “Category A” pathogens being developed by the Soviet bioweapons program. “So when the decision was made to make an investment into developing countermeasures,” he told me, “that was essentially their matrix from the beginning: these are what we know the Soviets had. We know they have stockpiles. This is what we’re going to protect against.” He mentioned the bacterium glanders, which was reportedly used by Germany in World War I and by Japan in World War II but seemed to Fauci a comparatively minor threat today. “I think the unknown threat of a mutant microbe is infinitely greater than someone coming and dropping a glanders on us!” he said. “I mean, seriously! Get real about that!”



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When I mentioned Fauci's comments to O'Toole, who oversees the biological-threat list at the Department of Homeland Security, she said he was "completely wrong" to suggest that the list is rooted in cold-war thinking. "We use current intelligence as an integral part of every material-threat determination," O'Toole said. "I'm surprised anyone in N.I.H. would think otherwise, particularly since the details of the material-threat determination process are briefed at the White House. It does raise a troubling question about how seriously N.I.H. is engaged in the biodefense mission."

Whether or not Fauci is right about the origins of the material-threat list, his observation that a natural outbreak is more likely than a biological attack is difficult to dispute. Each year, seasonal flu leads to about 200,000 hospitalizations and several thousand deaths in the United States. Although a biological attack could be much larger, there is no certainty that such an attack will ever happen. How to balance the unlikely but catastrophic potential of bioterror with the steady advance of natural disease is one of the most puzzling challenges for biodefense policy going forward.

To some extent, this is also a question of framework. Fundamentally, the countermeasure program is a public-health project, yet with its reliance on classified intelligence and secret-threat assessments, it is more closely aligned in many respects with the methodology of other national-security projects. Where biodefense fits into government bureaucracy will have a profound impact on its financing. In public health, the \$12 billion necessary to develop new vaccines for a dozen material-threat agents can seem a towering, even absurd, figure. Within the realm of national security, the same amount represents less than a quarter of the cost of the military's experiment with the V-22 Osprey heli-plane, or about what the U.S. will spend in Afghanistan between now and Christmas.

"We spent trillions of dollars in the cold war preparing for a potential nuclear exchange that never occurred," says Kenneth Bernard, who was the senior biodefense official in the Clinton White House from 1998 to 2001 and then again in the Bush White House from 2002 to 2005. "We're not spending that kind of money to prevent a bio attack because the people who work on biology are not trained to think like that. They are much more interested in dealing with the three particular strains of influenza that

are in the dish this year than they are in thinking about a plague attack in 2018."

Even if the leadership and financing for biodefense were to shift toward a national-security framework, the task would still require complex coordination among agencies with expertise in disparate spheres. This challenge is not made easier by the personal hostility that has emerged among many current program heads — some of whom have close ties to the competing companies they oversee. In the course of several months of reporting, I heard senior officials from each of the major countermeasure agencies question the motives and professional credentials of the others, sometimes in a manner involving spittle. At times it seemed that the most virulent pathogen in biodefense was mutual hostility, and everybody had it.

Senior officials in the Obama administration say that the president is committed to improving coordination on biodefense and is entering a fourth major overhaul of the countermeasure enterprise. Last year, officials from the countermeasure agencies met weekly with the White House staff to discuss the merits and drawbacks of the current approach. Officials who attended those meetings say the administration hopes to develop a more "nimble, flexible" program, in which a single drug can treat multiple diseases and a single manufacturing plant can produce multiple drugs. If that plan, after 10 years and hundreds of millions of dollars trying to create a new anthrax vaccine that is still not ready, sounds optimistic, it is. Whether it is also realistic, only time will tell. Critics are quick to note that, three years after taking office, the administration is still holding meetings and announcing bold new plans.

A number of former and current officials also point out that no one in the Obama White House is focused exclusively on biodefense. In both the Clinton and Bush administrations, there was a biodefense director whose primary job was to coordinate the agencies. Today, there are four senior White House officials with partial responsibility for biodefense, but each of them is also responsible for a raft of other issues, like natural disasters, terrorism and large-scale accidents like the Deepwater Horizon oil spill. Whatever you think U.S. biodefense policy should be, it is difficult



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to imagine that it would not benefit from clear, central leadership. Kenneth Bernard, the biodefense czar in both the Clinton and Bush administrations, told me, “The only way that you can get all of those people in the room is to call them into the White House, and to have a coordinating group under a single person.” Robert Kadlec, who was the senior official for biodefense in the second Bush term, said, “Unless someone makes this a priority, it’s a priority for no one.”

Randall Larsen, who first smuggled a tube of weaponized powder into the meeting with Dick Cheney 10 years ago — and went on to become the executive director of the Congressional Commission on Weapons of Mass Destruction — said: “Today, there are more than two dozen Senate-confirmed individuals with some responsibility for biodefense. Not one person has it for a full-time job, and no one is in charge.”

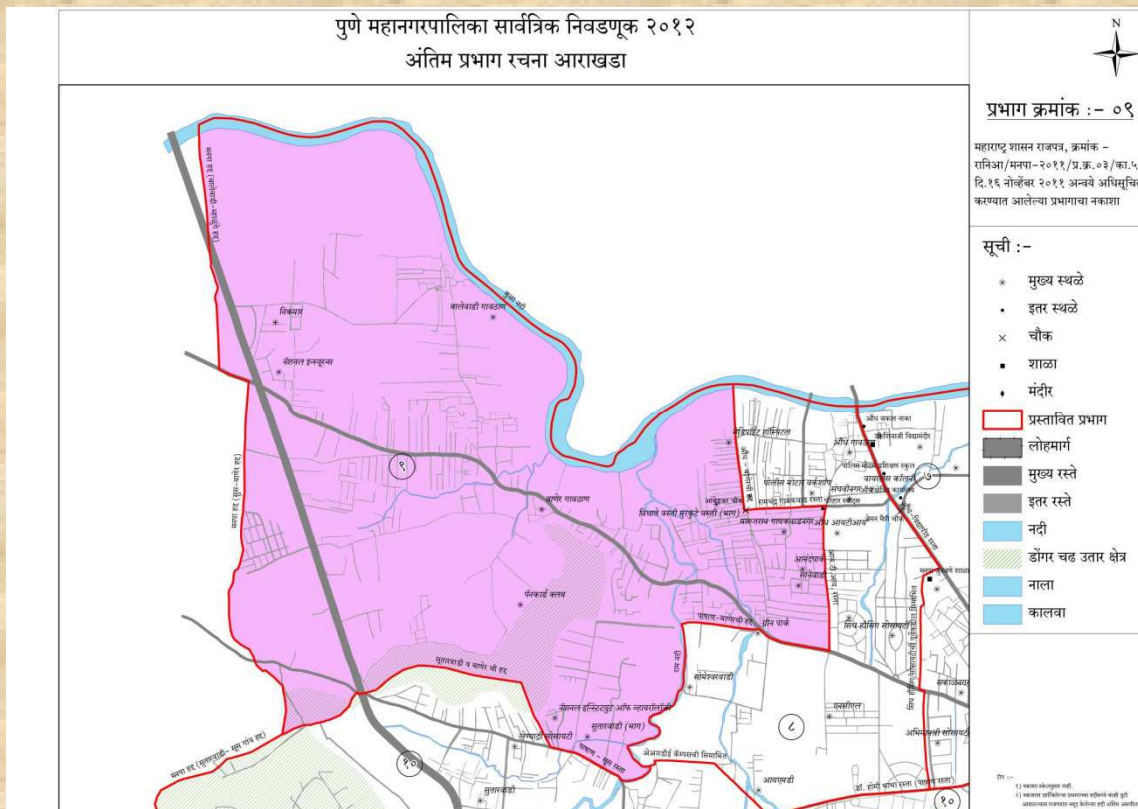
*Wil S. Hylton is a contributing writer for the New York Times Magazine.*

**India to Open High-Security Disease Research Lab**

Source:<http://www.nti.rsvp1.com/gsn/article/india-open-high-security-disease-research-lab/?mgh=http%3A%2F%2Fwww.nti.org&mgf=1>

India intends in a matter of months to begin operations at a high-security laboratory that would work with anthrax bacteria, the Ebola virus and other lethal disease agents that could

previous reports indicated the laboratory would be operational last November, the *Express* said the project had not fallen behind schedule. Biosafety Level 4 laboratories are authorized to



be used in acts of biological terrorism, the *Indian Express* reported.

The country's first Biosafety Level 4 facility is located at the National Institute of Virology in Pashan. While

work with materials that cause the world's most dangerous diseases, including those for which there is no known cure. The Indian site will use a number of systems to ensure that no materials escape the facility,





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according to A.C. Mishra, head of the National Institute of Virology. In addition, laboratory research personnel will wear protective outfits and have been prepared to prevent exposure to diseases.

The discovery of severe acute respiratory syndrome and other diseases in India demonstrated the need for the laboratory,

according to N.K. Ganguly, one-time head of the Indian Council of Medical Research.

"We wanted to make reagents and our requests to BSL-4 laboratories outside the country were not entertained," he said. "That's when we decided to set up our own facility and partnered with the Department of Science and Technology for the effort" (Anuradha Mascarenhas, *Indian Express*, Feb. 2).

### Woman professor mailed anthrax parcel to Pak PM's office

Feb 1, 2012

Source: <http://www.firstpost.com/fwire/anthrax-mailed-to-pakistani-pms-office-spokesman-200643.html>

A small parcel mailed to an office of the Pakistani prime minister in October contained a small amount of deadly anthrax spores, a spokesman said on Wednesday.

"The security team became suspicious of the package," Akram Shahidi, a spokesman for Prime Minister Yusuf Raza Gilani told Reuters. "After lab testing, it was determined that this was anthrax."

There were no reported casualties. The parcel was mailed from the town of Jamshoro in the southern Pakistani province of Sindh.

It was later discovered that a woman university professor from southern Sindh province sent the parcel. It could not immediately be ascertained whether the professor had been arrested.



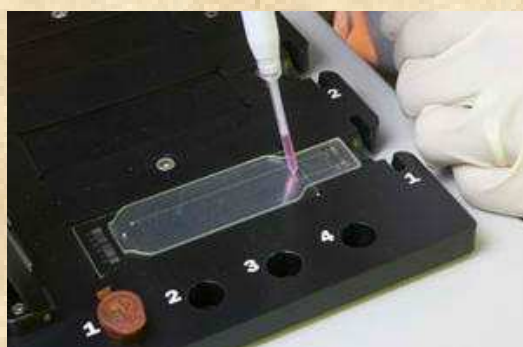
Earlier, police officials in Islamabad had said the parcel was sent to the premier's secretariat about 20 days ago.

Though the Taliban and other militant groups have carried out scores of bombings and suicide attacks in recent years, there have been no reported instances of them using letters or parcels with poisonous materials like anthrax.

In the US, anthrax mailings rattled American public just days after the 11 September 2001 attacks. US government scientist Bruce Ivins committed suicide in July 2008 as FBI agents were about to bring charges against him over the anthrax campaign, which killed five people and injured 17.

### Portable device quickly detects pathogens in developing countries

Source: <http://www.homelandsecuritynewswire.com/dr20120201-portable-device-quickly-detects-pathogens-in-developing-countries>



Two Cornell professors will combine their inventions to develop a handheld pathogen detector that will give health care workers in the developing world speedy results to identify in the field such pathogens as



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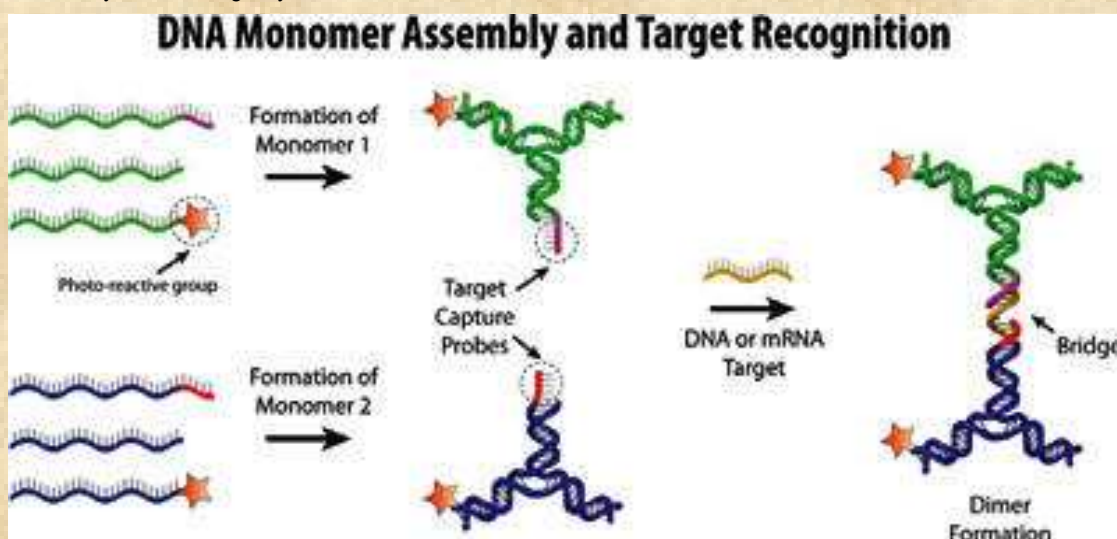
tuberculosis, chlamydia, gonorrhea, and HIV.

Using synthetic DNA, Dan Luo, professor of biological and environmental engineering, has devised a method of “amplifying” very small samples of pathogen DNA, RNA, or proteins. Edwin Kan, professor of electrical and computer engineering, has designed a computer chip that quickly responds to the amplified samples targeted by Luo’s method.

A Cornell University release reports that they will combine these to make a handheld device, usable under harsh field conditions, that can report in about thirty minutes what would ordinarily require transporting samples to a laboratory and waiting days for results.

over just part of their length, his team can assemble unusual shapes — in this case, a Y. Attached to the base of the Y is a DNA strand or antibody designed to lock onto a pathogen. Attached to one of the upper arms is a molecule that will polymerize — chain up with other similar molecules — when exposed to ultraviolet light.

When a pathogen is added to a solution of these Y-DNA molecules, the matching receptor on the stem of the Y will lock onto pathogen molecules, but only onto part of them; the mix will contain two different Y-structures, each tagged to lock onto a different part of the pathogen molecule. The result, when the targeted pathogen is present, is the



To “amplify” a pathogen sample, two different Y-shaped DNA structures are used, each one designed to lock onto a different part of the target molecule. When two Y’s are linked, polymer molecules attached to the ends of the double-Y can chain together to form a large, easily-detected clump.

The work will be supported by the Bill & Melinda Gates Foundation as part of the Grand Challenge program to develop “point-of-care diagnostics” for developing countries. The foundation has distributed \$25 million to twelve teams, selected from more than 700 applicants. Various teams are working on different aspects of the technology, and eventually their work will be integrated to make a practical, low-cost testing kit, Luo said.

Luo’s research group has found that DNA can be used like molecular-level Lego blocks. A single strand of DNA will lock onto another single strand that has a complementary genetic code. By synthesizing DNA strands that match

formation of many double-Ys linked together by a pathogen molecule, each assembly carrying two molecules capable of polymerizing.

The release notes that when the mixture is exposed to a portable ultraviolet light, the polymer molecules at the ends of each double-Y link to those on other double-Ys, forming long chains that clump up into larger masses. This polymerization will not happen, the researchers emphasize, unless a targeted pathogen is present to link two Ys together. A single Y with only one polymer molecule attached can only link to one other single Y, and no chain will form.

Kan’s new chip measures both the mass and charge of molecules that fall on it. The large clumps of Y-DNA have a much larger mass and charge than single molecules, and trigger the detector. The chip uses the popular and inexpensive CMOS



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technology compatible with other common electronic devices. A detector might, for example, be controlled and powered by a mobile phone, Luo suggested.

All this can be combined with nanofluidics to make a robust battery-operated testing kit, the researchers said.

After further development they plan to conduct tests simulating field conditions in the developing world. Along with surviving hot or cold weather, Luo said, "It has to work in dirty water."

### Vulnerability to Anthrax Varies Widely

Source: <http://health.usnews.com/health-news/news/articles/2012/02/06/vulnerability-to-anthrax-varies-widely-study>

People's susceptibility to anthrax toxin is determined by their genes and can vary greatly among individuals, a new study says.

Anthrax is an infectious disease widely regarded as a potential bioterrorism weapon.

Stanford University School of Medicine researchers analyzed immune cells from 234 people and found that the cells of three of the people were virtually insensitive to anthrax toxin, while the cells of others were hundreds of times more sensitive than those of other people.

The findings could help lead to new treatments and could also have important implications for U.S. national security, according to a university news release. For example, people known to be more resistant could act as first-line responders in an anthrax bioterrorism attack.

The study appears online Feb. 6 in the journal *Proceedings of the National Academy of Sciences*.

"This research offers an important proof of principle. They've showed that genetically determined variations in the level of expression of a human protein can influence the

susceptibility of host cells to anthrax toxin," Dr. David Relman said in the release.

Relman is a professor of microbiology and immunology and of medicine at Stanford, chair of the Institute of Medicine's Forum on Microbial Threats and a member of the U.S. Department of Health and Human Service's National Science Advisory Board for Biosecurity. He was not involved in the study.

"The findings also provide a possible means for predicting who is likely to become seriously ill after exposure, which could be extremely useful when faced with a large number of exposed people, such as was the case during the 2001 anthrax attacks," Relman said. (A week after the 9/11 attacks, letters carrying anthrax spores were mailed within the United States, killing five people and infecting 17 others.)

"Finally, they could lead to the development of novel treatment strategies, perhaps by blocking the interaction between the toxin and the receptor, or by down-regulating its expression," he added.

### 9/11 First Responders See Cancer Rates Triple

Source: [http://www.huffingtonpost.com/2012/02/08/nypd-first-responders-cancer\\_n\\_1262686.html](http://www.huffingtonpost.com/2012/02/08/nypd-first-responders-cancer_n_1262686.html)

New research has revealed that among the 12,000 police officers who responded to September 11th, 297 have been diagnosed with cancer-related disabilities, more than triple the rate before the attack.



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Furthermore, the disturbing statistics released by the Patrolmen's Benevolent Association show that the average age of officers at the time of diagnosis is 44.

With 19 cases, lung cancer ranks as the most commonly diagnosed form of cancer.

Upon the 10th anniversary of the attacks, similar data conducted by the Fire Department of the City of New York showed that firefighters who exposed themselves to Ground Zero toxins and dust were 19 percent more likely to develop cancer when compared to unexposed workers.

In 2011, after years of debate, lawmakers signed the James Zadroga 9/11 Health and Compensation Act which works to provide healthcare coverage for illnesses stemming from exposure to time spent at Ground Zero.

In an email to HuffPost, co-sponsor of the Zadroga Act Rep. Carolyn Maloney (D-N.Y.) explained:

The Bush Administration early on actually prevented the use of federal dollars to gather data on 9/11-related conditions

through the original World Trade Center medical monitoring program. This is one of the reasons why, 10 years after the attacks, real peer-reviewed data on cancers and other diseases is only now coming to light. When we made the final push to pass the bill last year, we didn't have peer-reviewed data on cancers.

Cancer, however, is not among the illnesses covered by the Zadroga Act because of its high costs of treatment. Lawmakers and researchers hope that in five years, a number of cancers may indeed receive coverage.

WTC fund master Sheila Birnbaum encouraged people with health ailments from Ground Zero exposure to report them and seek treatment regardless, "We have laid the foundation for a claims-processing system that we believe will be fair, transparent and easy to navigate. With full funding now available, I am confident that we will be able to complete the necessary infrastructure for a streamlined, automated claims process in a timely."

## UK 'not ready for bioterror attack'

Source:<http://www.google.com/hostednews/ukpress/article/ALeqM5ii7IYfxXODfDaZOJ6Mjft30uLqoA?docId=N0687261329914775555A>

Britain is underprepared for a bioterrorist attack that could cause far more damage than a conventional bombing, shadow defence secretary Jim Murphy has warned. Mr Murphy suggested that anthrax, smallpox or other deadly agents could be the biggest threat in the 21st century, and the response was untested.

The danger was highlighted as Labour launched its own review of the UK's defence capabilities.

Mr Murphy accused David Cameron of being "ambivalent" to defence, and showing less commitment than predecessors Tony Blair and Margaret Thatcher.

The coalition's Strategic Defence and Security Review (SDSR) was "rushed" and focused on savings rather than capabilities. He insisted the Arab Spring was just the "tip of the iceberg of the change we are likely to experience over the next decade", and the Government had to "keep up".

Labour's review document said: "Weak and failing states outnumber strong states by two to one. The long-term security effects of climate change may exacerbate inter-state tensions and reinforce tendencies to state failure. Increasing availability of technology to all states and non-state actors poses an increasingly enhanced threat, and new types of weaponry are being developed."

Mr Murphy added: "While the security environment of the 20th century was dominated by physics, the 21st may see biology centre-stage. Bioterrorism both exposes significant weaknesses in our security architecture and is a threat which could cause mass suffering."

The document warned that "existing international organisations have not been tested to respond to an attack with the potential



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scope and complexity of a mass bioterrorist incident".

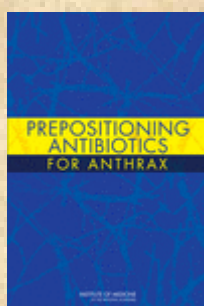
Mr Murphy said European countries had to "get serious" rather than relying on the US

to shoulder the burden of Nato's operations.

### Positioning Antibiotics for Anthrax

Source: <http://www.iom.edu/Reports/2011/Prepositioning-Antibiotics-for-Anthrax.aspx>

If terrorists released *Bacillus anthracis* over a large city, hundreds of thousands of people could be at risk of the deadly disease anthrax – caused by the *B anthracis* spores – unless they had rapid access to antibiotic medical countermeasures (MCM). The spores can be inhaled, be ingested, or come into contact with the skin. Inhalational anthrax is considered the most severe bioterrorism threat because the spores can travel significant distances through the air, and it has the highest mortality rate – approaching 100 percent if untreated. Although plans for rapidly delivering MCM to a large number of people following an anthrax attack have been significantly enhanced over the last decade, many public health authorities and policy experts fear that the nation's current systems and plans are insufficient to respond to the most challenging scenarios, such as a very large-scale anthrax attack or an attack on multiple cities. The U.S. Department of Health and Human Services' Office of the Assistant Secretary for Preparedness



#### Appropriateness & Consequences of Alternative Prepositioning Strategies

A combination of factors affect the decision of which medical countermeasures (MCM) positioning strategies—if any—to employ in a community, including risk, community demographics, and infrastructure. Each strategy has consequences in cost, time to prophylaxis, flexibility/rigidity, and potential for misuse. Select the positioning strategies below to explore how these factors compare.

No Prepositioning

Forward-Deployed

Cached

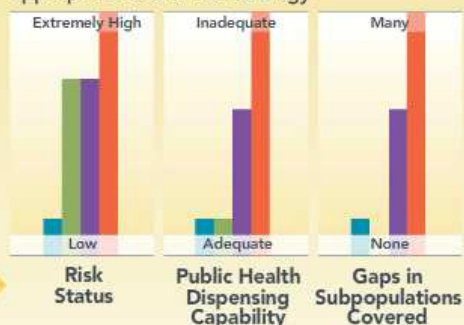
Predisposed

Picture this!



Click to see how coverage compares

Factors affecting the appropriateness of this strategy



Click for more detail.

Consequences resulting from the implementation of this strategy



This graphic illustrates the factors and trade-offs related to each prepositioning strategy. Terms such as "high" and "moderate" are used qualitatively and represent relative differences among the positioning strategies. Combinations of strategies in a single community may be appropriate.

and Response commissioned the IOM to examine the potential uses, benefits, and disadvantages of strategies for prepositioning antibiotics. This involves storing antibiotics close to or in the possession of the people who would need rapid access to them should an attack occur. The IOM defined and evaluated three categories of



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prepositioning strategies that could complement existing, centralized stockpiling strategies, including the Strategic National Stockpile maintained by the Centers for Disease Control and Prevention:

- **Forward-Deployed MCM:** MCM stored near the locations from which they will be dispensed
- **Cached MCM:** MCM stored at the locations from which they will be dispensed, such as workplaces and health care facilities
- **Predisposed MCM:** MCM stored by the intended users

While prepositioning strategies have the potential to reduce the time between an anthrax attack and when an individual receives antibiotics, this potential benefit should be weighed against increased costs of associated with prepositioning strategies, a lower degree of flexibility to change plans following an attack if needed, and possible health risks involved with home antibiotic storage. The IOM committee developed a decision-aiding framework to help state, local, and tribal health officials determine which prepositioning strategies—if any—would benefit their communities.

**NOTE:** Download full report from Newsletter's website – "CBRNE/CT Papers" link

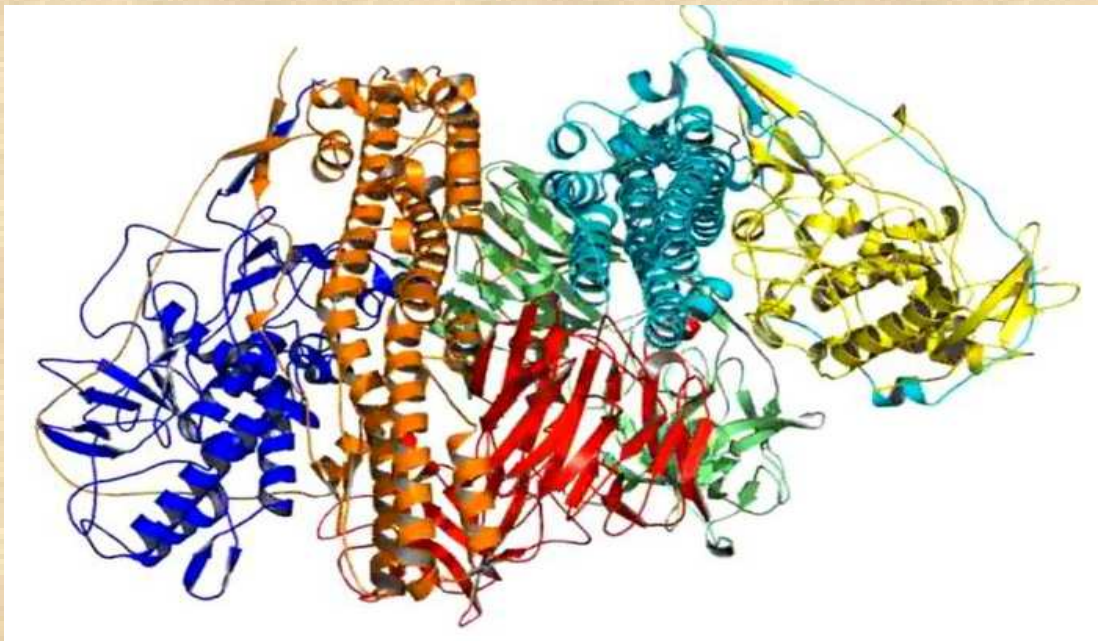
### Disarming the Botulinum Neurotoxin

Source: <http://www.sciencedaily.com/releases/2012/02/120223142628.htm>

Researchers at Sanford-Burnham Medical Research Institute and collaborators at the Medical School of Hannover in Germany

process that can be targeted with new therapeutics.

"Now that we better understand the structure of



recently discovered how the botulinum neurotoxin, a potential bioterrorism agent, survives the hostile environment in the stomach on its journey through the human body. Their study, published February 24 in *Science*, reveals the first 3D structure of a neurotoxin together with its bodyguard, a protein made simultaneously in the same bacterium. The bodyguard keeps the toxin safe through the gut, then lets go as the toxin enters the bloodstream. This new information also reveals the toxin's weak spot -- a point in the

the bacterial machinery that was designed for highly efficient toxin protection and delivery, we can see more clearly how to break it," said Rongsheng Jin, Ph.D., assistant professor in Sanford-Burnham's Del E. Webb Neuroscience, Aging and Stem Cell Research Center and senior author of the study.

#### The Janus-faced toxin

The botulinum neurotoxin is two-faced. On one side, it's the most poisonous



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substance known to man, causing botulism. Accidental botulinum neurotoxin poisoning is usually food-borne, but it's also considered a potential bioterrorism agent. On the other side, botulinum neurotoxin is also used as an effective therapy and popular cosmetic, such as in BOTOX.

The neurotoxin accomplishes both the good and the bad using the same trick -- paralyzing muscle cells by disrupting their connections with the nerves that tell them how and when to move. But before the neurotoxin can gain access to muscles and the neurons that control them, it must make a remarkable journey through the body -- surviving the digestive enzymes and extreme acidic environment in the stomach, penetrating the small intestine, and entering the bloodstream.

### Sneaking a peek at the neurotoxin and its bodyguard

This latest study on the botulinum neurotoxin was the result of a close collaboration between the Jin group and a research group at the Institute of Toxicology at the Medical School of Hannover, led by Andreas Rummel, Ph.D., an expert on clostridial neurotoxins. They used a technique called X-ray crystallography, which uses powerful X-ray beams to produce 3D images of proteins at the atomic level, to study a genetically inactivated, nontoxic version of the botulinum neurotoxin.

These experiments helped the team visualize the atomic structure of all three parts of the toxin: 1) the region that recognizes neurons, 2) the enzyme that acts like a pair of scissors to cut human neural proteins and cause paralysis, and 3) the needle that punches holes to help deliver the enzyme to the nerve terminal. What's more, the researchers also captured the toxin's interaction with a second bacterial protein, called nontoxic nonhemagglutinin (NTNHA).

"We were surprised to see that NTNHA, which is not toxic, turned out to be remarkably similar to botulinum neurotoxin. It's composed of three parts, just like a copy of the toxin itself. These

two proteins hug each other and interlock with what looks like a handshake," said Jin.

As the toxin moves through the body, NTNHA acts as its bodyguard, keeping it from being degraded when times are tough in the acidic stomach. However, as this study revealed, the toxin has a weak spot: when the toxin/NTNHA complex punches its way out of the small intestine, it's the change in pH that triggers a conformational change, breaks up the duo, and releases only the unprotected toxin into the bloodstream.

### Towards prevention and therapy

According to Jin, this new knowledge about how the botulinum neurotoxin and NTNHA balance the need for strong binding and a timely release could be exploited to outsmart them.

"We now hope we might be able to fool the toxin and its bodyguard using a small molecule that sends the wrong signal -- mimicking pH change, prematurely breaking up their protective embrace, and leaving the stomach's digestive enzymes and acid to do their job," he said. "We envision this type of therapy -- either alone or in combination with other therapies currently in development -- could be given preventively at a time when botulinum neurotoxin contamination becomes a public health concern."

Moreover, this type of therapy could be designed for oral delivery, rather than injection, making it easier to treat large numbers of people during an outbreak. A similar strategy could be used to deliver other protein-based drugs that usually need to be injected. "Here, protein drugs could be linked to a botulinum neurotoxin fragment and protected with NTNHA. Then we could possibly take them by mouth," Jin said.

This research was funded by a start-up fund from Sanford-Burnham, the Alfred P. Sloan Foundation, the German Research Foundation, the Robert-Koch-Institute, the National Institute of Allergy and Infectious Diseases, the U.S. Department of Energy, and the U.S. Department of Health and Human Services.

## Emergent BioSolutions's Shofe warns that bioterrorism is a major threat

Source: <http://www.bioprepwatch.com/news/shofe-warns-that-bioterrorism-is-a-major-threat/323184/>



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Allen Shofe, the senior vice president of corporate affairs at Emergent Biosolutions, Inc., made a presentation on Thursday entitled “Bio-Terrorism – The US Experience” at the CBRNE Asia Pacific Conference in Singapore. Shofe discussed the myths of bioterrorism, the chain of how bioterrorism occurs, the timeline of the 2001 anthrax attacks, the lessons learned from the attacks and more recent events related to anthrax.

The five myths of bioterrorism that Shofe discussed included that it is too difficult for terrorists to prevail with bioterrorism, that terrorists prefer bombs, that the capabilities of biological weapons are greatly exaggerated, that there is no intelligence information available on terrorists and their bioweapons programs,

and that there is nothing that we can do to stop them.

According to Shofe, the terrorists have the intent and the capability to produce

weapons of bioterrorism, the population is vulnerable and the consequences of such an attack would be catastrophic.

Shofe recounted the U.S. anthrax letter attacks of 2001, in which letters containing anthrax spores were mailed on two separate dates in September and October. The initial cases were not recognized as anthrax. There were 22 cases in total with five fatalities. Hundreds of people were also evaluated to rule out the disease, with 30,000 advised to take

antibiotics, 10,000 of which were told to take them for at least 60 days.

Shofe said that the lessons from 2001 included that local officials need to know who is in charge and that the networks must be strengthened between all jurisdictions. There must be integration of tactical and operational strategies along with information technology support. Laboratories must have the capacity to respond to surges and personnel must have the ability to cope with the event.

The threat of anthrax is still pervasive, as a package of anthrax was sent to the home of Pakistan’s prime minister in October. It marked the first time terrorists had used the biological agent in a government attack in the country since approximately the same time as the U.S.

attacks, the Telegraph reports.

Shofe said that preparedness was of the utmost importance

and that officials must learn to respond instead of

react. The United States must also build resilience to respond to such attacks more effectively in the future, Shofe said.

The **CBRNE Asia Pacific Conference** is one of the major events on CBRNE terrorism in the Asia Pacific region and it includes a large gathering of military and government officials as well as industry experts. The event concluded on Friday (Feb, 25) at the Grand Copthorne Waterfront Hotel.



**NOTE:** The Editor of the CBRNE-Terrorism Newsletter also participated in this important conference addressing the topic of “Hospital CBRNE Defense – Golden Hour vs. White Decades” (Feb 24, 2012)

### Anthrax-decontamination foam used in meth lab cleanup

Source: <http://www.homelandsecuritynewswire.com/dr20120226-anthraxdecontamination-foam-used-in-meth-lab-cleanup>

The meth cleanup problem in the United States is a big one; the U.S. Drug Enforcement Administration lists thousands

of locations where law enforcement agencies have found chemicals or





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paraphernalia indicating the presence of either clandestine drug laboratories or



dumpsites.

Sandia's decontamination foam, developed more than a decade ago and used to decontaminate federal office buildings and mailrooms during the 2001 anthrax attacks, is now being used to decontaminate illegal methamphetamine labs.



Mark Tucker, a chemical engineer in Sandia's Chemical & Biological Systems Dept. and co-creator of the original decontamination foam, said it renders all types of typical chemical and biological agents harmless.

"For structures contaminated with meth, owners have two choices: demolish it or reclaim it," said Kevin Irvine, vice president and general manager at EFT Holdings, which licenses the Sandia formulation and sells it under two names, **EasyDecon® DF200** (photo above), certified against chemical and biological agents, and **Crystal Clean** (right), intended for meth cleanup.

A Sandia Lab release reports that the meth cleanup problem is a big one. The U.S. Drug Enforcement Administration's (DEA) Clandestine Meth Lab registry lists thousands of locations in the United States where law enforcement agencies have found chemicals or paraphernalia indicating the presence of either clandestine drug laboratories or dumpsites.

In 2007, EFT released Crystal Clean, a



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chemically identical formula to EasyDecon DF200, but packaged and marketed specifically for meth cleanup. Sites contaminated with meth are considered crime scenes, but the contamination is chemical rather than biological. The approximately 700 remediation companies that clean up meth lab contamination also do other types of crime scene cleanup because they are accustomed to the sampling and documentation process.

“Property owners are often liable for expensive cleanup costs since most insurance companies won’t pay for cleanup related to methamphetamine, viewing damage resulting from meth labs as arising from a criminal act,” Irvine said. “That means that property owners and landlords are often left holding the bag for the cost of remediating a residence or business contaminated as a result of meth cooking.”

According to the Department of Justice, the chemicals used to cook meth and the byproducts from its manufacture, produce toxic fumes, vapors and residues. The report said anyone exposed to these byproducts, especially children, could suffer short- and long-term health problems. Prolonged exposure to meth byproducts may cause cancer; damage the brain, liver, kidney, spleen, and immunologic system; and result in birth defects.

The release quotes Tucker to say that many cleaning methods do not remove methamphetamine and the chemicals used to produce it. Incompletely or improperly cleaned surfaces, such as floors, countertops, and drywall, can remain contaminated for months or even years, even after many cleanups.

Another advantage of this cleanup method, Irvine said, is that some other methods are destructive or use more corrosive substances and the resulting chemical residues are themselves toxic.

The release notes that Sandia’s decontamination formula was developed with funding provided by the DOE and

NNSA Chemical and Biological National Security Program (CBNP).



## Medical Journal Article: 14,000 U.S. Deaths Tied to Fukushima Reactor Disaster Fallout

Source: <http://www.marketwatch.com/story/medical-journal-article-14000-us-deaths-tied-to-fukushima-reactor-disaster-fallout-2011-12-19>

Impact Seen As Roughly Comparable to Radiation-Related Deaths After Chernobyl; Infants Are Hardest Hit, With Continuing Research Showing Even Higher Possible Death Count.

An estimated 14,000 excess deaths in the United States

are linked to the

radioactive fallout from the disaster at the Fukushima

nuclear reactors in Japan,

according to a major new

article in the December 2011 edition of the International Journal of Health Services.

This is the first peer-reviewed study published in a medical journal documenting the health hazards of Fukushima. Authors

Joseph Mangano and Janette Sherman note that their estimate of 14,000 excess

U.S. deaths in the 14 weeks after the Fukushima meltdowns is comparable to the

16,500 excess deaths in the 17 weeks after the Chernobyl meltdown in 1986. The rise

in reported deaths after Fukushima was largest among U.S. infants under age one.

The 2010-2011 increase for infant deaths in the spring was 1.8 percent, compared to

a decrease of 8.37 percent in the preceding 14 weeks. The IJHS article will be published

Tuesday and will be available online as of 11 a.m. EST at <http://www.radiation.org>.

Just six days after the disastrous meltdowns struck four reactors at Fukushima on March 11, scientists

detected the plume of toxic fallout had arrived over American shores. Subsequent measurements by the U.S. Environmental Protection Agency (EPA) found levels of radiation in air, water, and milk hundreds of times above normal across the U.S. The

highest detected

levels of Iodine-131

in precipitation in the U.S. were as

follows (normal is about 2 picocuries I-

131 per liter of water): Boise, ID

(390); Kansas City (200); Salt Lake

City (190); Jacksonville, FL

(150); Olympia, WA

(125); and Boston, MA (92). Epidemiologist Joseph Mangano, MPH MBA, said: "This

study of Fukushima health hazards is the first to be published in a scientific journal. It

raises concerns, and strongly suggests that health studies continue, to understand the

true impact of Fukushima in Japan and around the world. Findings are important to

the current debate of whether to build new reactors, and how long to keep aging ones

in operation."Mangano is executive director, Radiation and Public Health

Project, and the author of 27 peer-reviewed medical journal articles and letters. Internist

and toxicologist Janette Sherman, MD, said: "Based on our continuing research, the

actual death count here may be as high as 18,000, with influenza and pneumonia, which were up

five-fold in the period in question as a cause of death. Deaths are seen



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across all ages, but we continue to find that infants are hardest hit because their tissues are rapidly multiplying, they have undeveloped immune systems, and the doses of radioisotopes are proportionally greater than for adults." Dr. Sherman is an adjunct professor, Western Michigan University, and contributing editor of "Chernobyl - Consequences of the Catastrophe for People and the Environment" published by the NY Academy of Sciences in 2009, and author of "Chemical Exposure and Disease and Life's Delicate Balance - Causes and

Prevention of Breast Cancer." The Centers for Disease Control and Prevention (CDC) issues weekly reports on numbers of deaths for 122 U.S. cities with a population over 100,000, or about 25-30 percent of the U.S. In the 14 weeks after Fukushima fallout arrived in the U.S. (March 20 to June 25), deaths reported to the CDC rose 4.46 percent from the same period in 2010, compared to just 2.34 percent in the 14 weeks prior. Estimated excess deaths during this period for the entire U.S. are about 14,000.

### Iran's Nukes and Israel's Dilemma

By Yoaz Hendel

Source: <http://www.meforum.org/3139/iran-nuclear-weapons-israel>

**Editors' note:** Yoaz Hendel now works in the Israeli prime minister's office. This article was written before his government service; views expressed herein are his alone.

While the Obama administration has not reconciled itself to the futility of curbing Tehran's nuclear buildup through diplomatic means, most Israelis have given up hope that the international sanctions can dissuade the

nuclear Iran or launch a preemptive military strike.

#### The Begin Doctrine

When the Israeli Air Force (IAF) decimated Iraq's Osirak nuclear reactor thirty years ago, drawing nearly universal condemnation, the government of prime minister Menachem Begin declared Israel's "determination to prevent confrontation states ... from gaining access to nuclear weapons." Then-defense minister Ariel Sharon explained, "Israel cannot afford the introduction of the nuclear weapon [to the Middle East]. For us, it is not a question of balance of terror but a question of survival. We shall, therefore, have to prevent such a threat at its inception"<sup>[1]</sup>



Ahmadinejad delivers his "Wipe Israel from the map" speech at Tehran's The World without Zionism conference, October 26, 2005. Iran's genocidal intentions have been repeatedly spelled out by current and former leaders in Tehran, and it is wise for the Israeli leadership to take the rhetoric—combined as it is with the hard facts of Iran's nuclear subterfuge—seriously.

Islamic Republic from acquiring the means to murder by the millions. Israel's leadership faces a stark choice—either come to terms with a



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This preventive counter-proliferation doctrine is rooted in both geostrategic logic and historical memory. A small country the size of New Jersey, with most of its inhabitants concentrated in one central area, Israel is highly vulnerable to nuclear attack. Furthermore, the depth of hostility to Israel in the Muslim Middle East is such that its enemies have been highly disposed to brinkmanship and risk-taking. Given the Jewish people's long history of horrific mass victimization, most Israelis find it deeply unsettling to face the threat of annihilation again.

While the alleged 2007 bombing of Syria's al-Kibar reactor underscored Jerusalem's willingness to take military action in preventing its enemies from developing nuclear weapons, its counter-proliferation efforts have relied heavily on diplomacy and covert operations. The raid on Osirak came only after the failure of Israeli efforts to dissuade or prevent France from providing the necessary hardware. Likewise, the Israelis have reportedly been responsible for the assassinations of several Iranian nuclear scientists in recent years.<sup>[2]</sup> They reportedly helped create the Stuxnet computer worm, dubbed by *The New York Times* "the most sophisticated cyber weapon ever deployed," which caused major setbacks to Iran's uranium enrichment program in 2009.<sup>[3]</sup> However, such methods can only slow Tehran's progress, not halt or reverse it.

### The Iranian Threat

Tehran has already reached what Brig. Gen. (res.) Shlomo Brom has called the "point of irreversibility" at which time the proliferator "stops being dependent on external assistance" to produce the bomb.<sup>[4]</sup> Most Israeli officials believe that no combination of likely external incentives or disincentives can persuade the Iranians to verifiably abandon the effort. The Iranian regime has every reason to persevere in its pursuit of the ultimate weapon. While the world condemned North Korea's development of nuclear weapons, it was unwilling to apply sufficient penalties to dissuade Pyongyang from building the bomb. The regime has an impressive ballistic missile program for delivering weapons of mass destruction. The Iranians began equipping themselves with SCUD missiles during the 1980-88 Iran-Iraq war.<sup>[5]</sup> Afterward, it turned to North Korea for both missiles and the technology to set up its own research and

production facilities. Tehran has produced hundreds of Shahab-3 missiles, which have a range of nearly 1,000 miles and can carry a warhead weighing from 500 kilograms to one ton.<sup>[6]</sup> In 2009, Tehran successfully tested a new two-stage, solid propellant missile, the Sejil-2, which has a range of over 1,200 miles, placing parts of Europe within its reach.

There is some disagreement as to how long it will take Tehran to produce a nuclear weapon. While the government of Israel has claimed that Iran is within a year or two of this goal, in January 2011, outgoing Mossad director Meir Dagan alleged that Iran will be unable to attain it before 2015.<sup>[7]</sup>

### Iranian Intentions

Much of the debate in Israel is focused on the question of Iranian intentions. The fact that Tehran has poured staggering amounts of money, human capital, and industrial might into nuclear development—at the expense of its conventional military strength, which has many gaps, not to mention the wider Iranian economy—is by itself a troubling indicator of its priorities. Prime Minister Benjamin Netanyahu and many other leading Israeli political and security figures view the Islamic Republic as so unremittably hostile that "everything else pales" before the threat posed by its pursuit of nuclear weapons.<sup>[8]</sup>

Proponents of this view draw upon repeated threats by President Mahmoud Ahmadinejad to wipe Israel off the map<sup>[9]</sup> and Iranian support for radical Palestinian and Lebanese groups seeking its destruction. They also point to Ahmadinejad's radical millenarian strand of Shiite Islamism.<sup>[10]</sup> Shiites believe that the twelfth of a succession of imams directly descendant of the Prophet Muhammad went into hiding in the ninth century and will one day return to this world after a period of cataclysmic war to usher in an era of stability and peace.

Ahmadinejad appears to believe that this day will happen in his lifetime. In 2004, as mayor of Tehran, he ordered the construction of a grand avenue in the city center, supposedly to welcome the Mahdi on the day of his reappearance. As president, he allocated \$17 million for a mosque closely associated with the Mahdi in the city of Jamkaran.<sup>[11]</sup> Rather than seeking to reassure the world about Tehran's peaceful intentions during his 2007



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address before the U.N. General Assembly, Ahmadinejad embarked on a wide-eyed discourse about the wonders of the Twelfth Imam: "There will come a time when justice will prevail across the globe ... under the rule of the perfect man, the last divine source on earth, the Mahdi."[\[12\]](#)

The fear in Israel is that someone who firmly believes an apocalyptic showdown between good and evil is inevitable and divinely ordained will not be easily deterred by the threat of a nuclear war. "There are new calls for the extermination of the Jewish State," Netanyahu warned during a January 2010 visit to Israel's Holocaust museum, Yad Vashem. "This is certainly our concern, but it is not only our concern."[\[13\]](#) For Netanyahu, a nuclear Iran is a clear and present existential threat.

Those who dissent from this view point out that the Iranian people are not particularly hostile to Israelis; indeed, the two countries enjoyed close relations before the 1979 Iranian revolution. They argue that the Iranian regime's militant anti-Zionism is a vehicle for gaining influence in the predominantly Sunni Arab Middle East but not something that would drive its leaders to commit suicide. "I am not underestimating the significance of a nuclear Iran, but we should not give it Holocaust subtext like politicians try to do," said former Israel Defense Forces (IDF) chief of staff Dan Halutz, who commanded the Israeli military during the war in Lebanon in 2006.[\[14\]](#) Defense Minister Ehud Barak said in a widely circulated September 2009 interview that Iran was not an "existential" threat to Israel.[\[15\]](#)

The question of whether Iran is an existential danger is more rhetorical than substantive. Even if Iranian nuclear weapons are never fired, their mere existence would be a profound blow to most Israelis' sense of security. In one poll, 27 percent of Israelis said they would consider leaving the country if Tehran developed nuclear capabilities. Loss of investor confidence would damage the economy. This could spell the failure of Zionism's mission of providing a Jewish refuge as Jews will look to the Diaspora for safety.[\[16\]](#) This is precisely why Israel's enemies salivate over the possibility of an Iranian bomb.

Even if the prospect of mutually assured destruction effectively rules out an Iranian first strike, Tehran's acquisition of nuclear weapons would still shift the balance of power greatly. Iran projects its power throughout the Middle

East mainly by way of allies and proxies, such as Muqtada al-Sadr's Mahdi army in Iraq, Hamas in Gaza, the Assad regime in Syria, and Hezbollah in Lebanon. The Iranian nuclear umbrella will embolden them. The next time an Israeli soldier is abducted in a cross-border attack by Hezbollah or Hamas, Jerusalem will have to weigh the risks of a nuclear escalation before responding. There is also the possibility that Tehran could provide a nuclear device to one of its terrorist proxies.[\[17\]](#)

A successful Iranian bid to acquire the bomb will set off an unprecedented nuclear arms race throughout the region. Arab countries such as Egypt, Saudi Arabia, Jordan, and the United Arab Emirates will want to create their own nuclear insurance policies in the face of Tehran's belligerence and regional ambitions. Turkey has passed a bill in its parliament paving the way for the construction of three nuclear reactors by 2020.[\[18\]](#)

Most of Israel's decision-makers believe that Israel cannot afford the risks of living with a nuclear Iran. Those who publicly differ with Netanyahu on this score seem mainly concerned that he is exploiting popular fears for political gain, but they are likely to fall in line with public opinion at the end of the day. The large majority of Israelis support a military strike on Iran's nuclear facilities as a last resort, and a small majority (51 percent according to a 2009 poll) favor an immediate strike on Iran as a first resort.[\[19\]](#)

### The Military Option

The general assessment is that the IDF has the ability to knock out some of Tehran's key nuclear facilities and set back its nuclear program by a couple of years but not completely destroy it—at least not in one strike.[\[20\]](#) Several factors make Iran's nuclear program much more difficult to incapacitate than that of Saddam Hussein's Iraq.

Whereas most of Iraq's vital nuclear assets were concentrated at Osirak, "Iran's nuclear facilities are spread out," notes former IDF chief of staff Ya'alon,[\[21\]](#) some of them in close proximity to population centers. The distance to targets in Iran would be considerably greater than to Osirak, and its facilities are better defended. Iran has mastered nuclear technology much more thoroughly than Iraq and can, therefore, repair much



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of the damage without external help.

Of the known Iranian nuclear sites, five main facilities are almost certain to be targeted in any preemptive strike. The first is the Bushehr light-water reactor, along the gulf coast of southwestern Iran. The second is the heavy-water plant under construction near the town of Arak, which would be instrumental to production of plutonium. Next is the uranium conversion facility at Isfahan. Based on satellite imagery, the facility is above ground although some reports have suggested tunneling near the complex.<sup>[22]</sup>

Fourth is the uranium enrichment facility at Qom, which the Iranians concealed from the International Atomic Energy Agency (IAEA) prior to September 2009 and well after major Western intelligence agencies knew about it. The facility, which can hold about 3,000 centrifuges, was built into a mountain, making it difficult to penetrate. Israeli defense minister Barak called it "immune to standard bombs."<sup>[23]</sup>

The fifth and most heavily fortified primary target is the main Iranian uranium enrichment facility in Natanz. The complex consists of two large halls, roughly 300,000 square feet each, dug somewhere between eight and twenty-three feet below ground and covered by several layers of concrete and metal. The walls of each hall are estimated to be approximately two feet thick. The facility is also surrounded by short-range, Russian-made TOR-M surface-to-air missiles.

Military planners may also feel compelled to attack Tehran's centrifuge fabrication sites since their destruction would hamper the efforts to reestablish its nuclear program. However, it is believed that the Iranians have dispersed some centrifuges to underground sites not declared to the IAEA. It is by no means clear that Israeli intelligence has a full accounting of where they are.

The Israelis may also choose to bomb Iranian radar stations and air bases in order to knock out Tehran's ability to defend its skies, particularly if multiple waves are required. Ya'alon estimates that Israel would need to attack a few dozen sites.<sup>[24]</sup>

### The Operation

The Israeli Air Force is capable of striking the necessary targets with two to three full squadrons of fighter-bombers with escorts to shoot down enemy aircraft; however, most of

the escorts will require refueling to strike the necessary targets in Iran.<sup>[25]</sup> In addition, the Israelis can make use of ballistic missiles and cruise missiles from their Dolphin-class submarines.

The IAF has carried out long-range missions in the past. In 1981, Israeli F-16s struck the Osirak reactor without midair refueling. Refueling tankers were activated for Israel's longest-range air strike to date, the 1985 bombing of the Palestine Liberation Organization's (PLO) headquarters in Tunis, 1,500 miles away. The IAF's highly publicized 2009 flyover over Gibraltar was widely perceived as a dress rehearsal for a strike against Iran.<sup>[26]</sup> In 2009, the IAF instituted a new training regimen that included refueling planes as their engines were on and sitting on the runway with fuel nozzles disconnected seconds before takeoff.

The IAF has specialized munitions designed to penetrate fortified targets, including GBU-27 and GBU-28 laser-guided bunker buster bombs and various domestically produced ordnance. Israeli pilots are skilled at using successive missile strikes to penetrate fortifications. "Even if one bomb would not suffice to penetrate, we could guide other bombs directly to the hole created by the previous ones and eventually destroy any target," explains former IAF commander Maj. Gen. Eitan Ben-Eliyahu, who participated in the strike on Osirak.<sup>[27]</sup>

Israel's advanced electronic-warfare systems are likely to be successful in suppressing Iran's air defenses although these were significantly upgraded by Moscow during the 2000s.<sup>[28]</sup> Moreover, whereas thirty years ago, Israeli pilots needed to fly directly over Osirak to drop their bombs, today they can fly at higher altitudes and launch satellite or laser-guided missiles from a safer distance. Nor are Tehran's roughly 160 operational combat aircraft, mostly antiquated U.S. and French planes, likely to pose a serious threat to Israeli pilots.

### Possible Attack Routes

The main problem Jerusalem will encounter in attacking Iran's nuclear facilities results from the long distance to the main targets. Since greater distance always means that more things can go wrong, Israeli losses and efficacy will likely depend on which of three possible



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routes they take to Iran.

The northern route runs along the Turkish-Syrian border into Iran and is estimated to be about 1,300 miles. This route entails several risks and would need to take into account Syrian air defenses and Turkish opposition to violating its airspace. Israeli planes flew over Turkey when the IAF bombed al-Kibar in 2007 and even dropped fuel tanks in Turkish territory. However, the recent deterioration in relations between Ankara and Jerusalem makes it extremely unlikely that the Turkish government will allow such an intrusion.

The central route over Jordan and Iraq is the most direct, bringing the distance to Natanz from the IAF's Hatzetim air base down to about 1,000 miles, yet it entails serious diplomatic obstacles. Jerusalem would have to coordinate either with the Jordanians and the Americans or fly without forewarning. While Israel has a peace treaty with Jordan, Amman will not want to be perceived as cooperating with Israeli military action against Tehran and thus possibly face the brunt of an Iranian reprisal. Washington may not want to be involved either, as it needs Tehran's acquiescence to withdraw its forces from Iraq successfully. While Jerusalem could limit the risk of hostile fire by notifying its two allies of the impending attack, there would be considerable diplomatic costs.

The southern route would take Israeli planes over Saudi Arabia and then into Iran. While this is longer than the central route, there have been reports that the Saudis have given Jerusalem permission to use their airspace for such an operation.<sup>[29]</sup>

The difficulties also depend on the precise goal of the air strike. A short-term, financially costly degradation of Iran's nuclear program can be achieved in one wave of attacks, but Israeli defense analysts have estimated that a decisive blow could require hitting as many as sixty different targets with return sorties lasting up to two days.

Estimates in Israel vary regarding the losses the IAF might suffer in such an operation.<sup>[30]</sup> Some estimates claim that with their advanced, Russian-supplied air defense systems, the Iranians might be able to shoot down a small number of aircraft. But even just a few pilots shot down and captured by Iran would be a heart-wrenching tragedy for Israelis. To prepare for this, in 2009 the IAF began increasing mental training for its airmen with an emphasis on survival skills.

Many former, high-ranking generals and intelligence chiefs have cast doubt on whether Jerusalem can succeed in decisively setting back Tehran's nuclear program. Addressing an audience at the Hebrew University of Jerusalem in May 2011, Meir Dagan said that the idea of attacking Iranian nuclear sites was "the stupidest thing" he had ever heard and that such an attempt would have a near-zero chance of success.<sup>[31]</sup>

### The Fallout

The strategic fallout from an Israeli attack will likely be significant. Hezbollah will probably initiate hostilities across the Lebanese-Israeli border. During the 2006 Israel-Hezbollah war, the Shiite Islamist group fired more than 4,000 rockets into Israel, causing extensive damage and killing forty-four civilians.<sup>[32]</sup> Today, its arsenal is considerably larger and includes many more rockets capable of reaching Tel Aviv. Dagan estimates that the Iranians can fire missiles at Israel for a period of months, and that Hezbollah can fire tens of thousands of rockets.<sup>[33]</sup> Hamas may also attack Israel with rockets from Gaza. It is not inconceivable that Syrian president Bashar Assad would join the fight, if still in power, in hope of diverting public anger away from his regime.

Iran has also developed an extensive overseas terrorist network, cultivated in conjunction with Hezbollah. This network was responsible for two car bombings against the Jewish community in Argentina that left 114 people dead in the early 1990s.<sup>[34]</sup>

Last year, Israel distributed gas masks to prepare for the possibility that Iran or Syria would deploy chemical or biological weapons<sup>[35]</sup> while the IDF's Home Front Command received an increased budget to prepare bomb shelters and teach the public what to do in case of emergency.<sup>[36]</sup> C4I systems were improved between early-warning missile detection systems and air sirens, including specially designed radars that can accurately predict the exact landing site of incoming missiles. Since no one is certain how accurate Iran's Shahab and Sajil missiles are, Jerusalem began strengthening defenses at its Dimona nuclear reactor in 2008.<sup>[37]</sup>

Jerusalem will not sit back and allow its citizens to be bombed mercilessly. Since Lebanon will probably be the main platform





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of any major Iranian attack, Israeli retaliation there is sure to be swift and expansive. Should Syria offer up any form of direct participation in the war, it too may come under Israeli attack. The Israelis may go so far as to bomb Iran's oil fields and energy infrastructure. Since oil receipts provide at least 75 percent of the Iranian regime's income and at least 80 percent of export revenues, the political shock of losing this income could lead the regime to rethink its nuclear stance, as well as erode its public support, and make it more difficult to finance the repair of damaged nuclear facilities.<sup>[38]</sup>

On the other hand, Tehran may double down by sending its own ground troops to Lebanon or Syria to join the fight against Israel. This could draw in the Persian Gulf Arab monarchies, particularly if the Alawite-led Assad regime is still facing active opposition from its majority Sunni population.

How long such a war will last is impossible to predict. Israel's defense doctrine calls for short wars, so it will likely launch a diplomatic campaign with Western backing to end the war as soon as possible. However, the Iranians may hunker down for the long haul, much as they did during the 8-year Iran-Iraq war.<sup>[39]</sup>

If a military solution cannot guarantee success at an acceptable price, some in Israel argue that the best hope for countering the threat posed by Iranian nuclear weapons is regime change. "The nuclear matter will resolve itself once there is a regime change," says Uri Lubrani, Israel's former ambassador to Iran and a senior advisor to the Israeli defense minister until last year. According to Lubrani, the highest priority for Israel and the West should be to strengthen the Iranian masses that rose up in protest following the fraudulent June 2009 elections.<sup>[40]</sup>

"A military strike will at best delay Iran's nuclear program, but what's worse, it will rally the Iranian people to the defense of the regime," says Lubrani. He argues that it is better to let sanctions eat away at the regime's legitimacy even if they do not lead to a stand down on its nuclear program.<sup>[41]</sup>

However, it is not clear whether Lubrani is correct in his assessment that war will benefit the regime. While most Iranians are generally supportive of their country's nuclear ambitions, devastating Israeli air strikes may drive home

the folly of their government's reckless provocations just as they did during the later stages of the Iran-Iraq war. It is unlikely that many are willing to sacrifice their country's well-being in pursuit of the bomb.

Whether an Israeli attack will unite the public for or against President Ahmadinejad and Supreme Leader Ali Khamene'i is anyone's guess. Much will depend on whether the air strikes produce significant collateral damage. The Bushehr, Isfahan, and Natanz facilities contain uranium hexafluoride (UF<sub>6</sub>) and even some low-enriched uranium, the release of which into the environment would almost certainly raise public health concerns.

### Conclusion

The Israelis will ultimately have to choose between launching an attack likely to spark a large-scale regional conflict and allowing Iran to go nuclear with dire long-term implications. Notwithstanding some disagreement about the immediacy of the threat and possible repercussions, the large majority of Israelis favor military action over living with the ubiquitous threat of nuclear annihilation.

With a U.N. vote on Palestinian statehood threatening to erode Israel's international standing still further, attacking Iran could prove dangerously isolating for Israel even with Washington's blessing—to proceed without it would be a step into the unknown. Much, therefore, depends on whether policymakers in Washington will stand by Jerusalem when push eventually comes to shove.

The American people have increasingly come to recognize the threat to world peace posed by Iran. Whereas 6 percent of Americans named Iran as the country that poses the greatest threat to the United States in 1990, in 2006, Iran led the field with 27 percent.<sup>[42]</sup> However, though Washington's official stance is that all options remain on the table, Obama is unlikely to undertake direct military action to stop Tehran from building the bomb and may prove reluctant to tacitly support Israeli action. That is why the decision will ultimately be left to Israel, or rather to its prime minister, who will be faced with a Churchillian dilemma, unprecedented in the Jewish state's history.

### Notes:

[1] Ariel Sharon, address, Government Press Office, Jerusalem, [Dec. 15, 1981](#).



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- [15] Reuters, Sept. 17, 2009.
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- [23] *The Jerusalem Post*, Dec. 28, 2009.
- [24] *Jane's Defence Weekly*, Mar. 10, 2006.
- [25] Raas and Long, "Osirak Redux?" pp. 7-34.
- [26] Ynet News, [Mar. 5, 2009](#).
- [27] *Jane's Defense Weekly*, Mar. 4, 2005.
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- [33] *Ha'aretz*, May 7, 2011.
- [34] BBC News, [Mar. 27, 2011](#).
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- [42] Associated Press, July 2, 2006.

*Yoaz Hendel, a military historian who has lectured at Bar Ilan University and written on strategic affairs for the newspaper Yediot Aharonot, now works in*



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*the Israeli prime minister's office. This article was written before his government service; views expressed herein are his alone.*

### The Iran decision: the pros and cons of the military option

Source: <http://www.homelandsecuritynewswire.com/bull20111228-the-iran-decision-the-pros-and-cons-of-the-military-option-i>

Short of unforeseen developments, the real decision U.S., Israeli, and European leaders will face in 2012 is not whether to use military means or other means to stop Iran from acquiring nuclear weapons or the capability to produce them; the real decision, rather, will be between using military means to stop Iran's confident march toward the bomb, and accepting the reality of a nuclear-armed Iran; those who support a military attack on Iran argue that the choice is thus between two very bad options: a nuclear armed Iran or a war to prevent it from going nuclear; each of these options has its costs, but the costs of allowing Iran to become a nuclear weapon state far outweigh the costs of using a military attack to prevent it from becoming one.

The coming year will likely be the year during which a decision is made as to whether or not to use military action to prevent Iran from acquiring nuclear weapons.

To be more precise: Iran may well decide that it would serve its interests better to stop short of building a bomb, and instead be in a position where it is one screw turn away from the bomb. This is a stage at which it has sufficient amount of highly enriched uranium for several bombs, a credible warhead design and the machining capabilities to put it together, and the missiles to carry nuclear warheads to their targets. At that stage, Iran will be able to produce nuclear weapons within a few short months after making the decision to do so.

The decision for those who do not want to see a nuclear-armed Iran must thus include not only the determination of whether or not to prevent Iran from actually building a bomb, but also a determination regarding what bomb building-related capabilities Iran would not be allowed to acquire, and how close to building a bomb would Iran be allowed to get.

The coming year is likely to be the year of decision because of two reasons:

- Despite being hobbled and slowed down in its pursuit of the bomb by a sustained covert campaign by Israel and the United States, a

campaign which includes assassinations of nuclear scientists, malware attacks, blowing up of labs and missile test facilities, and more, Iran has proved determined and resilient in its pursuit of the bomb. It is now closer to the bomb than it was five years ago, or a year ago.

- The economic sanctions imposed on Iran have been costly and painful, but not costly or painful enough to persuade Iran to cease and desist.

Short of unforeseen developments, the real decision U.S., Israeli, and European leaders will face in 2012 is thus not whether to use military means or other means to stop Iran from acquiring nuclear weapons or the capability to produce them. The real decision, rather, will be between using military means to stop Iran's confident march toward the bomb, and accepting the reality of a nuclear-armed Iran.

In this article I summarize the main arguments for and against a military action against Iran. For a more detailed argument for attacking Iran, see Matthew Kroenig, "Time to Attack Iran: Why a Strike Is the Least Bad Option" <http://www.foreignaffairs.com/articles/136917/matthew-kroenig/time-to-attack-iran>>Foreign Affairs (January-February 2012). I summarize below some of his arguments for attacking Iran. Tomorrow I will summarize the arguments against such an attack.

#### The arguments for military action

Those who argue for military action to stop Iran from acquiring nuclear weapons do not say such action would not be costly or risky. They argue, rather, that of the two options we face – allowing Iran to acquire nuclear weapons or attacking it militarily to stop it from doing so – an attack on Iran would be the least bad option.



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Their argument is based on three assumptions: a nuclear-armed Iran would be very bad for the United States, the region, and the world; a military action to defang Iran is possible; the retaliatory campaign Iran is likely to launch following such an attack can be mitigated. These three assumptions are further developed this way:

### *The dangers of a nuclear Iran*

1. A nuclear-armed Iran would severely limit the U.S. freedom of action in the region, threaten U.S. interests, and undermine U.S. initiatives. Would the United States have attacked Iraq in 1991 or 2003 if Iraq had nuclear weapons? Would NATO have attacked Libya if Qaddafi had nuclear weapons? If a country has nuclear weapons it does not mean that it will use them to attack other countries, but such a country must be handled with greater care and consideration, and its views and interests must be taken into account more than otherwise would have been the case.

2. Even if Iran would not use, or threaten to use, its nuclear weapons, these weapons would offer cover for Iran's conventional and subversive campaigns against other countries. Confronting a nuclear-armed nation is always more problematic than confronting a non-nuclear nation, and Iran may well feel greater freedom to engage in risky and destabilizing behavior knowing that its nuclear weapons would make other countries hesitate about confronting it.

3. Iran may well decide to share its nuclear weapons with state and non-state allies. The five original members of the nuclear club, and the four countries that joined the club later, have not shared their weapons with others, but an argument can be made that Iran, which sees itself as a leader of the Shi'as, may be tempted to give a couple of nuclear warheads to Hezbollah. This may allow Iran to achieve some of its strategic goals (for example, inflicting egregious injury on Israel) while maintaining deniability.

4. It is unlikely that the leading Sunni states in the region – Saudi Arabia, Egypt, Turkey – would allow their Shi'a neighbor to build a nuclear arsenal without building their own nuclear arsenals to balance Iran. Iran's acquisition of nuclear weapons should thus be seen not in isolation, but as a first step toward a regional nuclear arms race.

5. If more countries in the region acquire nuclear weapons, then conflicts in the Middle East will more likely escalate to the nuclear level sooner rather than later. During the cold war it was known as the use-them-or-lose-them syndrome. The nuclear arsenal of Israel is small, and the arsenals likely to be built by Iran, Egypt, Saudi Arabia, and Turkey, will be small as well. The states in the region will not have secure second-strike capabilities, or robust command-and-control systems. Moreover, countries in the region either border on each other or the distance between them is short. This means that a missile launched from one country against another takes very few minutes to arrive on target. These, and other, facts will create a situation in which each nuclear-armed country will be terrified of a surprise attack on its small nuclear arsenal, predisposing it to use its few nuclear weapons at the outset of any conflict.

### *Why containment and deterrence is not an option*

Opponents of a military attack on Iran say that the United States could use vis-à-vis Iran a regime of containment and deterrence similar to that used against the Soviet Union and China during the cold war.

Kroenig argues that the deterrence option is not viable, for three reasons.

1. The United States would have to invest billions of dollars in bolstering the defenses and command and control systems of countries in the region in order to persuade Iran that attacking or pressuring these countries would not be useful.

2. In addition, the United States, just as it has done in Europe and east Asia, would have to extend a nuclear umbrella to countries in the region. Such a nuclear umbrella – and a massive investment in these countries' defense – would be necessary not only to dissuade Iran from attacking these countries, but would also be necessary to persuade these countries not to build their own nuclear arsenals, plunging the volatile Middle East into a nuclear arms race in the process.

3. To make U.S. deterrence credible, the United States would have to station tens of thousands of soldiers in the region, position substantial naval and air assets – including nuclear weapons – in the area, and bolster its



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intelligence capabilities to keep a close eye on the Iranian arsenal. As has been the case in Europe and east Asia, the United States should be ready to engage in this costly and burdensome containment and deterrence regime for a few decades.

### An attack on Iran is militarily possible

Those who support military action against Iran also say that such an attack is possible and will achieve its goals:

1. Most, if not all, of Iran's nuclear facilities are known and the United States has the weapons to destroy or seriously disrupt them. Moreover, most of these facilities are not located near population centers so an attack using precision-guided weapons may result in relatively small collateral damage to civilians and civilian infrastructure.

2. Even if an attack on Iran does not destroy every last node in the nuclear weapons production chain, such an attack will certainly be destructive enough to delay Iran's program by years. The 1981 Israeli attack on Iraq's nuclear facility at Osiraq prevented Saddam from making Iraq into a nuclear-armed state, and the 1991 military campaign foreclosed Iraq's nuclear weapons option. The Israeli destruction of a Syrian nuclear reactor in September 2007 put an end to that country's nuclear weapons ambitions.

### Iranian retaliation can be mitigated

There is little doubt that Iran would retaliate to an attack on its nuclear facilities. Among the retaliatory measures Iran may take:

- Attack American soldiers in Afghanistan
- Order Hezbollah and Hamas to attack Israel
- Attack Israel with mid-range missiles
- Attack countries in Europe with long-range missiles
- Close the Straits of Hormuz and disrupt the supply of oil from the Gulf in other ways
- Launch a campaign of terror in the United States and other Western countries

Iran can do many other things. Kroenig argues, though, that the risk of retaliation may be mitigated in two ways: first, pre-attack measures can be taken to reduce the cost of retaliation; second, the United States would make clear to Iran that the purpose of the military campaign on Iran is not regime change, but rather the destruction of Iran's nuclear facilities. Iran would be made to understand that there are certain red lines which, if Iran crossed them in its retaliatory campaign, would cause the United States to up the ante and escalate the war to include additional targets in Iran (during the cold war they used to call this "intra-war deterrence").

In short, those who support a military attack on Iran argue that the choice is between two very bad options: a nuclear armed Iran or a war to prevent it from going nuclear. Each of these options has its costs, but the costs of allowing Iran to become a nuclear weapon state far outweigh the costs of using a military attack to prevent it from becoming one.

*Ben Frankel is the editor of the Homeland Security Newswire*

## New method may lead to improved detection of nuclear materials

Source: <http://www.gizmag.com/nuclear-detector-north-western/20252/>

Scientists at Northwestern University, Illinois, have outlined a new method for detecting electromagnetic radiation at the high energy end of the spectrum. The work could lead to

the development of a small, hand held device able to detect this "hard radiation" and has implications for the detection of



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radioactive materials which could potentially be employed in terrorist weapons, such as nuclear bombs or radiological dispersion devices, as well as materials employed in clandestine nuclear programs.

### The threat

Even a very crude bomb resulting in a so-called "fizzle" yield may have enough energy to bring down a large building, and the release of initial radiation and fallout would be extremely hazardous in a populated area. Investigation of such threats is the responsibility of bodies such as the US Department of Energy's National Nuclear Security Administration and any new tools they may acquire can only be of benefit to the general population.



### A new innovation

The Northwestern University scientists' response to this challenge comes in the form of a method they've called "dimensional reduction" which involves the creation of new semiconductor materials using heavy elements in which the majority of electrons are bound and unable to move.

"The terrorist attacks of 9/11 heightened interest in this area of security, but the problem remains a real challenge," said Mercuri G. Kanatzidis, who led the research. "We have designed promising semiconductor materials that, once optimized, could be a fast, effective and inexpensive method for detecting dangerous materials such as plutonium and uranium."

When incoming electromagnetic radiation hits the material, the resulting excitement of these "bound" electrons can be analyzed to determine what element is emitting the radiation. This would be extremely useful in assessing any potential threat.

Because heavy elements typically have a lot of mobile electrons, detecting the small changes in their excited states is a difficult task. The teams' solution was to find a dense material with a crystalline structure in which electrons would be mobilized when hard radiation was absorbed. The researchers have

had successful results with two materials: cesium-mercury-sulfide and cesium-mercury-selenide. A big advantage of these materials is that they can be employed for hard radiation detection at room temperature, unlike previously existing semiconductor detection materials such as High-Purity Germanium (HPGe) which are typically cooled using liquid nitrogen.

The end result of Kanatzidis' research may be a hand held device able to detect high energy radiation which typically just passes right through most materials. For example, a geiger counter may detect some gamma radiation but at the high energy end of the spectrum the photons can pass through undetected.

There could also be civil applications for the new method such as in the field of medical imaging.

The Northwestern University research has been supported by the Department of Homeland Security and the Defense Threat Reduction Agency and is published in the journal [Advanced Materials](#).

## Are 'suitcase nukes' a genuine concern?

Source: <http://www.gizmag.com/suitcase-nukes-fact-or-fiction/18506/>

### The allegation

On the 7th September 1997, 60 Minutes broadcast an alarming news item featuring the allegations of former Russian National Security



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Advisor, General Aleksander Lebed. Lebed claimed that the former Soviet Union had not only manufactured *but had lost track of perhaps 100* of a very frightening weapon: a nuclear bomb in a casing which made it appear to be a small suitcase, designed to be detonated by a single operator with as little as a single half-hours notice. Lebed claimed that the devices had a yield of 1 kiloton (equivalent to 1000 tons of TNT), measured 60 x 40 x 20 centimetres (24 x 16 x 8 inches) and, prior to the dissolution of the USSR in 1991, had been distributed to members of the GRU (foreign military intelligence directorate).

That notion such weapons might exist and that examples of them may be unaccounted for is a worrying thought to say the least! The claim, hotly denied by Russian authorities at the time, generated fears that the bombs may have fallen into the hands of terrorists. Republican Congressman Curt Weldon headed a public inquiry into the perceived risks of these bombs, and was known to carry a mock-up of one to emphasize his points.

Examples of "suitcase nukes" abound in popular fiction, but is it even possible to fabricate a nuclear weapon so small? If so, is it likely that such devices exist and are even missing?

To get to the bottom of this it is necessary to consider what makes a nuclear weapon function.

### How a nuclear device works

Nuclear weapons function by assembling the right amount, of the right material, under the right conditions, at the right speed. Thankfully for humanity, given that these weapons are our most destructive innovation, meeting these conditions is easier said than done, and the required materials are *very hard* to come by.

The material needed must be 'fissile', which means it must be able to undergo a self-sustained fission chain reaction. Examples of such materials are certain isotopes of the elements uranium and plutonium. Put simply, fission is the process by which atoms are split, yielding energy, atoms of other elements, and particles called neutrons. As neutrons have no charge, they are not repelled away when they speed toward an atom (in the same way the two like-charged poles of two magnets will push away). They can strike the nucleus of a fissile atom and split it, yielding, again, energy and more neutrons. This process is repeated a

huge number of times within an atomic explosion, all in an extremely short period. If the mass of fissile material reaches the condition where there are the same number of neutrons present than before the previous 'generation', then the mass can be said to be "critical". Any condition where there are more neutrons present than during the previous fission generation can be said to be "supercritical" and this is what is required for a nuclear detonation.

### Critical Assembly

This supercritical mass must be brought together very quickly, otherwise it will be simply blown apart before there have been enough atoms fissioned and before there is any significant release of energy. One method is to fire one piece of material into another. The very first, and unsuccessful, prototype for a nuclear weapon intended to implement this method using plutonium. It was soon realized, however, that this method would only be successful using very highly enriched uranium ... and quite a lot of it. Thus this so called "gun assembly", though simple, is bulky. It was a weapon of this type which destroyed the Japanese city of Hiroshima on August 6, 1945. Smaller, but still bulky gun assembly warheads were in the past tested for use in large US artillery shells, certainly much larger than a suitcase. In regard to suitcase bomb, images that abound on the web showing a gun-type weapon mounted in a suitcase do not accurately reflect just how large such a device would have to be to function

Another method, which works using plutonium, uranium, or a composite of the two, is to compress a mass of fissile material using explosives. In this case, the explosive charges are shaped to focus their energy inwards, in the same way that a glass lens will focus a beam of light. For this reason, the charges are known as explosive lenses. This "implosion assembly" will not actually increase the mass of fissile material present, but will increase its density considerably, allowing it to become supercritical. To aid this, at the center of the fissile mass is a device known as an initiator. The converging shockwaves crush the initiator, bringing quantities of polonium into contact with beryllium. Alpha particles emitted from the polonium liberate a flood of neutrons from the beryllium, helping to initiate the chain



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reaction. This is how the first nuclear device ever tested worked, and also the device which destroyed the Japanese city of Nagasaki on August 9, 1945.

Early examples of both these types of bomb were bulky, though the second type requires less fissile material and with technological progress through the decades, examples have gotten far smaller. The first implosion bombs required a large mechanism to use a discharge of high voltage to detonate 32 or more lenses at exactly the same time. The electronics required to do this, for instance, are far smaller in 2011, or even just prior to 1997 when Lebedev's allegations took place, than they were in 1945! Even still, a large quantity of explosives is needed to implode the fissile "core" of a bomb. In this article from the Nuclear Weapon Archive, Carey Sublette outlined how small these kind of devices may be. He suggested that although it would add to the size of the device, a thin reflector of beryllium would reduce the mass of fissile material needed to produce an explosion, and thus the overall weight. A reflector surrounds the bomb and serves to reflect neutrons back towards its center. Sublette suggests that a fissile mass of around 10.1 kilograms could bring about a nuclear explosion without bulky explosives. The yield from such a bomb would be small; about the same as a few tens of tons of conventional explosive. This is a far cry from the sort of energy which could be liberated from a similar mass of fissile material if there were no size constraints - the device employed against Nagasaki used about 6.2 kilograms of plutonium to yield the equivalent of 22,000 tons of TNT. Such a small yield does not mean that the dangers of this weapon would be trivial as its release of so called "initial" or "prompt" radiation would present a tremendous hazard.

### The W54

As it happens, the theoretical device Sublette describes has physical dimensions closely resembling that of a weapon tested by the United States. This "W-54" warhead, in the form of the M388 projectile, formed the heart of a strange weapons system known as the Davy Crocket which was a nuclear recoilless rifle. This man-portable rocket weapon enabled the user to deliver a small nuclear warhead against his enemy. The problem being that the explosion could also potentially deliver a lethal dose of radiation, not only to the enemy but to

themselves and any comrades who may be close by! These weapons were actually deployed by US soldiers in the field in Europe during the Cold War, which thankfully never turned hot. The warhead itself was a cylinder of 10.7 x 15.7-inches (27.3 x 40cm).

### The SADM

The W-54 device was also made into another form of weapon; the Specialized Atomic Demolitions Munition or SADM. This man portable weapon was intended to be used to destroy structures such as bridges. It was also cylindrical in shape and at 15.7 x 23.6-inches (40 cm x 60 cm), with a weight of 150 lbs (68 kg); it would need to be kept in a rather large suitcase. Details from the former Soviet Union surrounding the type and designation of their nuclear weapons are not readily available in the public domain, though it has been suggested there may have been a similar Soviet device designated as the RA-155. An even more difficult claim to establish is that of Soviet defector Colonel Stanislav Lunev, formally of the GRU, who referred to the alleged missing "suitcase nukes" as being a small nuclear demolitions bomb called the RA-115.

### How small can a nuclear device be?

Implosion devices do feature a subtype - those where the fissile mass is not crushed to many times its normal density as it is surrounded by bulky explosive lenses, but reshaped and compressed as it is imbedded in a cylindrical mass of explosives detonated at each end. A football shaped fissile material employed is an alloy of plutonium and gallium which is stable at normal density but needs only a moderate change in density to bring about a shift in its "phase". The amount of fissile material present is in excess of a critical mass when a spherical configuration is achieved and when hollow spaces within the core are collapsed.

This method of assembling a supercritical mass is known as "two point linear implosion". Using this principle, the United States did develop a device that would fit within a 155 mm artillery shell. This W-48 shell was a cylinder 155mm across and by 846mm long (6.1 x 33.3-inches). Its explosion would have been equal to around 72 tons of TNT, and with it a very dangerous release of initial radiation. If its





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non-essential bullet-shaped nose cone was not present, and the fusing system was mounted alongside the device, this or similar shells could fit within the 24 x 16 x 8 inch space alleged by Lebed. To bring the device into the kiloton range would require fusion boosting. Here, the tremendous heat and temperature from the nuclear explosion can enable like-charged nuclei of heavy hydrogen isotopes (deuterium and tritium) to fuse together where they would normally push each other apart. The result is, again, a release of energy and very high energy neutrons, which go on to strike, and split, fissile atoms. This can be achieved by injecting deuterium and or tritium gas into the fissile core just before the device is detonated, though this gas supply must be replenished and maintained.

### However...

These two point linear implosion devices are both very heavy and expensive. The reason is the large quantities of fissile material needed; about 13 kilograms. Various estimates suggest that weapons-grade plutonium costs around \$4000 a gram. Admittedly, the price has risen drastically since the end of the Cold War but in any case, any missing nuclear device using the two point linear implosion assembly probably has a salvage price high enough to make it very unlikely that such a weapon would remain intact for terrorist use. Also even taking into consideration the rise in price of fissile material,

it seems difficult to believe the Russian government, in the Soviet era or afterwards, would lose track of something not only so dangerous but so valuable!

### Hard to believe, harder to prove

The closest actual weapon to a suitcase bomb, U.S. SADM, at 68kg, weighed as much as a small adult. Though even smaller devices have been developed using the two point linear explosion principle, the sheer cost of the fissile material required likely rules out that such devices would be allowed to go missing. In any case, a nuclear bomb could not just be hidden for many years until used; they require continual maintenance and upkeep. Even if these devices exist outside of governmental control, they are unlikely to have remained serviceable, though the material they contained could perhaps be put to ill-use.

Thankfully, the claims of Aleksander Lebed and Stanislav Lunev seem rather exaggerated and are likely to be in the realm of myth. Sometimes people exaggerate, or are genuinely mistaken, but the claims of these two men appear to be the only "evidence" supporting the notion of missing suitcase nukes. In a world where you can't trust former members high ranking members of the Soviet military and GRU defectors, who can you trust? One thing is certain; we cannot ask Lebed, who died when a Russian helicopter in which he was flying as a passenger crashed in 2002.

## Iran plans one-kiloton underground nuclear test in 2012

Source: <http://www.debka.com/article/21635/>

According to debkafile's Iranian sources, Tehran is preparing an underground test of a one-kiloton nuclear device during 2012, much like the test carried out by North Korea in 2006. Underground facilities are under construction in great secrecy behind the noise and fury raised by the start of advanced uranium enrichment at Iran's fortified, subterranean Fordo site near Qom.

All the sanctions imposed so far for halting Iran's progress toward a nuclear weapon have had the reverse effect, stimulating rather than cooling its eagerness to acquire a bomb.

Yet, according to a scenario prepared by the Institute for National Security Studies (INSS) at Tel Aviv University for the day after an Iranian nuclear weapons test, Israel was resigned to a

nuclear Iran and the US would offer Israel a defense pact while urging Israel not to retaliate. As quoted by the London *Times* Monday, Jan. 1, INSS experts, headed by Gen. (ret.) Giora Eiland, a former head of Israel's National Security Council, deduced from a simulation study they staged last week that. Their conclusion is that neither the US nor Israel will use force to stop Iran's first nuclear test which they predicted would take place in January 2013.

Our Iranian sources stress, however, that Tehran does not intend to wait for the next swearing-in of a US president in January 2013, whether Barack Obama is returned for a second term or



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replaced by a Republican figure, before moving on to a nuclear test.

Iran's Islamist rulers have come to the conclusion from the Bush and Obama presidencies that America is a paper tiger and sure to shrink from attacking their nuclear program – especially while the West is sunk in profound economic distress.

debkafile's sources stress that both Tehran and the INSS are wrong: The Tel Aviv scenario is the work of a faction of retired Israeli security and intelligence bigwigs who, anxious to pull the Netanyahu government back from direct action against the Islamic Republic, have been lobbying for the proposition that Israel can live with a nuclear-armed Iran.

Our Washington sources confirm, however, that President Obama considers the risk of permitting a nuclear-armed Iran to be greater than the risks of military action.

Monday, Jan. 9, top administration officials said that developing a nuclear weapon would cross a red line and precipitate a US strike. US Defense Secretary Leon Panetta: "If Iran takes the step to develop a nuclear weapon or blocking the Strait of Hormuz, they're going to be stopped." He was repeating the warnings of the past month made by himself and Chairman of the Joint US Chiefs of Staff. Gen. Martin Dempsey.

As for Israel, Dennis Ross, until recently senior adviser to President Obama, reiterated in a Bloomberg interview on Jan. 10: "No one should doubt that President Barack Obama is

prepared to use military force to prevent Iran from acquiring a nuclear weapon if sanctions and diplomacy fail."

As for Israel, Ross said: "I wouldn't discount the possibility that the Israelis would act if they came to the conclusion that basically the world was prepared to live with Iran with nuclear weapons," he said. "They certainly have the capability by themselves to set back the Iranian nuclear program."

Israel's media screens and front pages are dominated these days by short-lived, parochial political sensations and devote few words to serious discourse on such weighty issues as Iran's nuclear threat.

This is a luxury that the US president cannot afford in an election year. Iran's acquisition of a nuclear bomb and conduct of a nuclear test would hurt his chances of a second term. The race is therefore on for an American strike to beat Iran's nuclear end game before the November 2012 presidential vote.

The INSS have also wrongly assessed Russia's response to an Iranian nuclear test as "to seek an alliance with the US to prevent nuclear proliferation in the region."

This fails to take into account that Prime Minister Vladimir Putin, running himself for a third term as president in March, has already committed Moscow to a new Middle East policy which hinges on support for a nuclear Iran and any other Middle East nation seeking a nuclear program. This is part of Russia's determined plan to trump America's Arab Spring card.

## Satellite imagery detects thermal 'uplift' signal of underground nuclear tests

Source:<http://esciencenews.com/articles/2012/01/10/satellite.imagery.detects.thermal.uplift.signal.underground.nuclear.tests>

A new analysis of satellite data from the late 1990s documents for the first time the "uplift" of ground above a site of underground nuclear testing, providing researchers a potential new tool for analyzing the strength of detonation. The study has just been published in *Geophysical Research Letters*.

Lead author Paul Vincent, a geophysicist at Oregon State University, cautions that the findings won't lead to dramatic new ability to detect secret nuclear explosions because of the time lag between the test and the uplift signature, as well as geophysical requirements of the underlying terrain. However, he said, it

does "provide another forensic tool for evaluation, especially for the potential explosive yield estimates."

### [InSAR image](#)

"In the past, satellites have been used to look at surface subsidence as a signal for nuclear testing," said Vincent, an associate professor in OSU's College of Earth, Ocean, and Atmospheric Sciences. "This is the first time uplift of the ground has correlated to a nuclear test site. The conditions



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have to be just right and this won't work in every location.

"But it is rather interesting," he added. "It took four years for the source of the uplift signal -- a thermal groundwater plume -- to reach the surface."

The focus of the study was Lop Nor, a nuclear testing site in China where three tests were conducted -- May 21, 1992; May 15, 1995; and Aug. 17, 1995. Vincent and his colleagues analyzed interferometric synthetic aperture

laterally when it reaches the water table, which is usually deep beneath the surface.

At Lop Nor, however, the water table is only about three meters below the surface, and the heated groundwater plume took four years to reach that high, lifting the ground above the detonation site slightly -- but enough to be detected through InSAR images.

Lop Nor also is characterized by a hard granite subsurface, which helps pipe the heated water vertically and prevents the subsidence frequently found at other testing sites.

A past study by Vincent, published in 2003, first shed light on how subsidence can manifest itself in different ways -- from the force of the explosion creating a crater, to more subtle effects of "chimneying," in which the blast opens up a chimney of sorts and draws material downward, creating a dimple at the ground surface.

Before joining the OSU faculty in 2007, Vincent spent several years as a physicist at the Lawrence Livermore National Laboratory.

Vincent said the analysis of nuclear explosions has become a specialized field. Seismology technology can provide an initial estimate of the energy of the explosion, but that data is only good if the seismic waves accurately reflect coupling to the

connecting ground in a natural way, he explained. Efforts are sometimes made to "decouple" the explosive device from the ground by creating specializing testing chambers that can give off a false signal, potentially masking the true power of a test.

"Subsidence data combined with seismic data have helped narrow the margin of error in estimating the explosive yield," Vincent noted, "and now there is the potential to use test-related thermal expansion as another forensic tool."

radar (InSAR) images from 1996-99 and detected a change in the surface beginning four years after the tests.

Though the uplift was less than two inches, it corresponds to known surface locations above past tests within the Lop Nor test site.

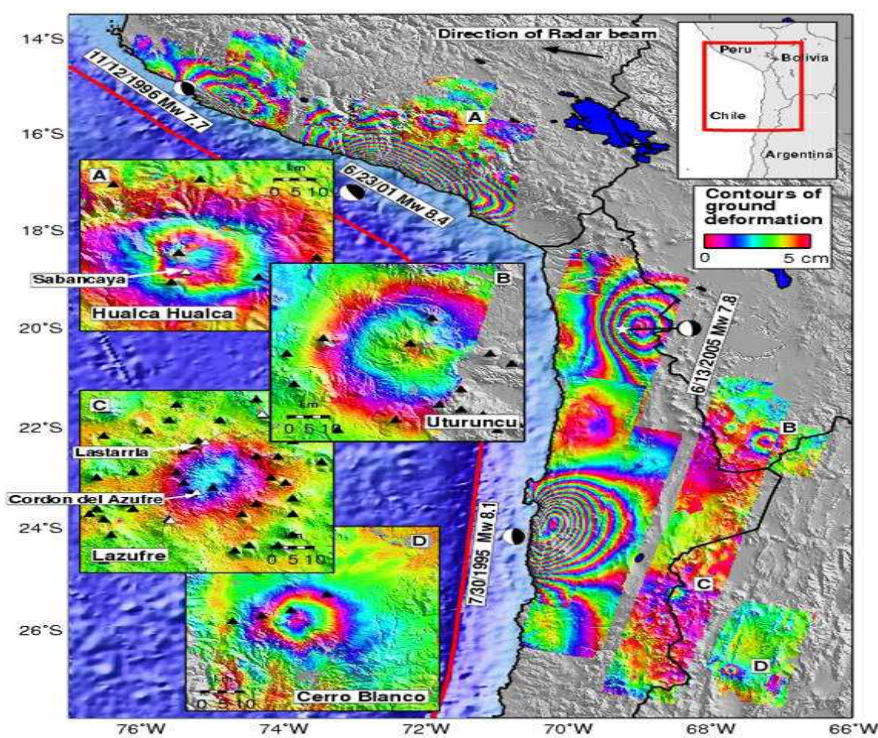
From past studies, the researchers knew that heat from underground detonation of nuclear devices propagates slowly toward the surface. At most sites -- including the Nevada National Security Site -- that heat signal dissipates

*Co-authors on the paper with Vincent include Sean Buckley of the Jet Propulsion Laboratory, Dochul Yang, the University of Texas-Austin, and Steve Carle, of Lawrence Livermore National Laboratory.*

### Iran and the undeclared campaign

By Frank Gardner (BBC security correspondent)

Source: <http://www.bbc.co.uk/news/world-middle-east-16513186>



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The assassination on Wednesday of another Iranian nuclear scientist may now prompt Iran to try to respond in kind.

The murder in Tehran of Mostafa Ahmadi-Roshan is the fourth such attack on Iran's scientists in just two years.

It comes on top of a sophisticated cyber sabotage programme and two mysterious

explosions at Iranian military bases, one of which in November killed the general known as 'the godfather' of Iran's ballistic missile programme.

No-one is claiming responsibility for these attacks but Iran blames its longstanding enemy, Israel, and occasionally the US.

Whoever is behind them, Iran is clearly being subjected to an undeclared campaign to slow down its nuclear programme, which the West and Israel suspect



is aimed at developing an atomic bomb.

The latest Iranian scientist to die was killed by a magnetic bomb, attached to his car, a Peugeot 405, by two men on a motorbike.

Whoever was targeting him clearly knew his route, his car and his timings.

The small, professionally made device was designed to kill its victim but cause only limited damage to the surroundings.

It bears a striking similarity to the bomb used in November 2010 to kill another nuclear scientist, Majid Shahriari.

A motorbike bomb killed a physics professor earlier that year and another device narrowly missed killing the man tipped to be the next head of Iran's Atomic Energy Organisation.

### 'Decapitation strategy'

#### Attacks on Iranian scientists

**Jan 2012** - Mostafa Ahmadi Roshan, a professor at the Technical University of Tehran, died after bomb was placed on his car by a motorcyclist

**Nov 2010** - Majid Shahriari, member of nuclear engineering faculty at Shahid Beheshti University, killed in Tehran after bomb attached to his car by motorcyclist in Tehran. Another scientist, Fereydoon Abbasi Davani - future head of the Atomic Energy Organisation of Iran - is hurt in a separate attack

**Jan 2010** - Massoud Ali Mohammadi, a physics professor, died when a motorcycle rigged with explosives exploded near his car

Mostafa Ahmadi-Roshan, who was killed on Wednesday, was both a university lecturer and a senior supervisor at the Natanz uranium enrichment facility.

In such a secretive country as Iran it is hard to determine how much difference, if any, his death will make to the accelerating nuclear programme which experts in the West believe

may now have overcome many of the earlier obstacles to building a bomb.

"It's conceivable it could have an impact on retarding the programme", says Mark Fitzpatrick, an expert on nuclear proliferation at the International Institute for Strategic Studies (IISS) in London.

"There are a few key technical areas that Iran

has not yet mastered... so a decapitation strategy is an effective measure for retarding this process. But it may be that Iran is beyond this point".

So who is behind this undeclared campaign?

No-one is putting their hand up, but Israel has made no secret of its delight at any setbacks to



Iran's nuclear programme, which it fears may soon become a threat to its existence.

In the past its officials have either denied any part in the attacks or refused to comment. But Israel's overseas intelligence agency Mossad is believed to have one of the best networks of



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informants and operatives in the Middle East. In 2011 an Iranian confessed to being recruited by Mossad to assassinate a scientist earlier in the year, although coerced confessions are commonplace in Iran.

The Stuxnet computer virus, stealthily introduced into Iran's nuclear programme in 2009 and which wreaked temporary damage on its centrifuges, is believed to be the work of US, Israeli and possibly British cyber experts.

### Retaliation?

So far, Iran has not responded to these attacks, other than loudly condemning them and vowing to continue its nuclear programme. But this latest killing could prove to be the proverbial straw on the camel's back, prompting Iran's powerful intelligence agency Etilaat and Revolutionary Guards Quds force to carry out some attacks of their own overseas.

If they wanted to retaliate against the US they certainly have enough operatives in Iraq and Afghanistan to make life difficult for the Americans there.

Striking out at Israel's nuclear scientists would be harder - they are said to be well guarded and Israeli intelligence has been bracing for some kind of Iranian reaction.

Sir Richard Dalton, Britain's Ambassador to Iran from 2002 to 2006 and now an associate fellow at the UK think tank, Chatham House, believes the undeclared campaign against Iran's nuclear scientists is entering a dangerous phase.

"The next step is for Iran to answer like for like" says Dalton.

"If a state is behind this then this is international state terrorism and it's inviting a response. It looks like a further twist that will lead to a tit-for-tat".

## North Korea from 30,000 feet

By Niko Milonopoulos, Siegfried S. Hecker, and Robert Carlin

Source: <http://www.thebulletin.org/web-edition/features/north-korea-30000-feet>

The first publicly available overhead imagery that suggested North Korea was constructing a new nuclear reactor at its Yongbyon complex appeared on November 4, 2010. Charles L. Pritchard, a former special envoy for negotiations with North Korea and the president of the Korea Economic Institute, along with a delegation from the institute provided the first confirmation of this construction after a visit to Yongbyon that week. The following week, Yongbyon officials told Stanford University's John W. Lewis and two authors of this article (Hecker and Carlin) that the reactor was designed to be an experimental pressurized light water reactor (100 megawatts thermal, or 25-30 megawatts electric) to be fueled with low-enriched uranium fuel produced in a newly constructed centrifuge plant at the nearby Yongbyon fuel fabrication plant. The new reactor is being constructed on the former site of a cooling tower for a now-disabled, 5-megawatt electric, gas-cooled, graphite-moderated reactor that had been used to produce plutonium; the tower was demolished in 2008 as a step toward an eventual denuclearization agreement. The Yongbyon construction site that Pritchard, Hecker, Carlin, and Lewis saw was essentially at the stage of development captured in the overhead image in Figure 1. The foundation slab had been poured, and the steel-reinforced concrete containment structure was about one meter high, on its way to a final height of 40 meters. Additional excavation was visible along with the construction of several new buildings that looked like storage sheds.

Figure 1





Overhead image that provided the first evidence of the construction of a new reactor at the Yongbyon nuclear complex.

Overhead imagery tracks construction progress during the past year -- from September 26, 2010, to November 3, 2011 -- as shown in Figure 2. Early images indicated that the construction of this new light water reactor began in late September 2010, near the site of the destroyed cooling tower.

Figure 2



A time sequence of overhead images of the light water reactor site tracking its development from September 2010 to November 2011.

The images show the rapid rate of construction of the reactor's exterior, including the development of the reactor containment structure and the adjacent turbine generator hall. As the photos indicate, not much progress was made between December 2010 and April 2011, likely because of the harsh North Korean winter.

The September 23, 2011, annotated image shown in Figure 3 demonstrates that much has been done since May. The dashed lines represent underground cooling pipes running from a newly constructed pump house to the Kuryong River (as seen in a May



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22 overhead not shown here). The reactor building containment dome is partially complete, and construction has begun on the turbine generator hall. Construction trucks can be seen in the right-hand corner of the image. On the north side of the reactor is the skeleton of a structure for transferring equipment into the reactor hall during annual maintenance outages.

Figure 3



Annotated diagram of the new reactor site, shown in a photo indicating significant progress in construction.

The latest available close-up overhead image, taken on November 14, 2011 (Figure 4), shows that many of the reactor's external components are almost complete. Much progress has been made on the turbine generator hall; a traveling crane rail is already visible. The structure of the turbine pedestal inside the turbine building is already apparent. This is significant; it indicates that North Korea has a turbine design and possibly the ability to manufacture a turbine generator set that will fit within the dimensions of the turbine pedestal now under construction. The reactor building containment dome on the east side of the reactor's containment structure is complete and will be placed on top of the containment structure once the large internal components of the reactor's core have been inserted. For the first time, we see the appearance of small cylindrical components near the dome; these are likely parts of the pressure vessel that will go inside the containment structure.

Figure 4



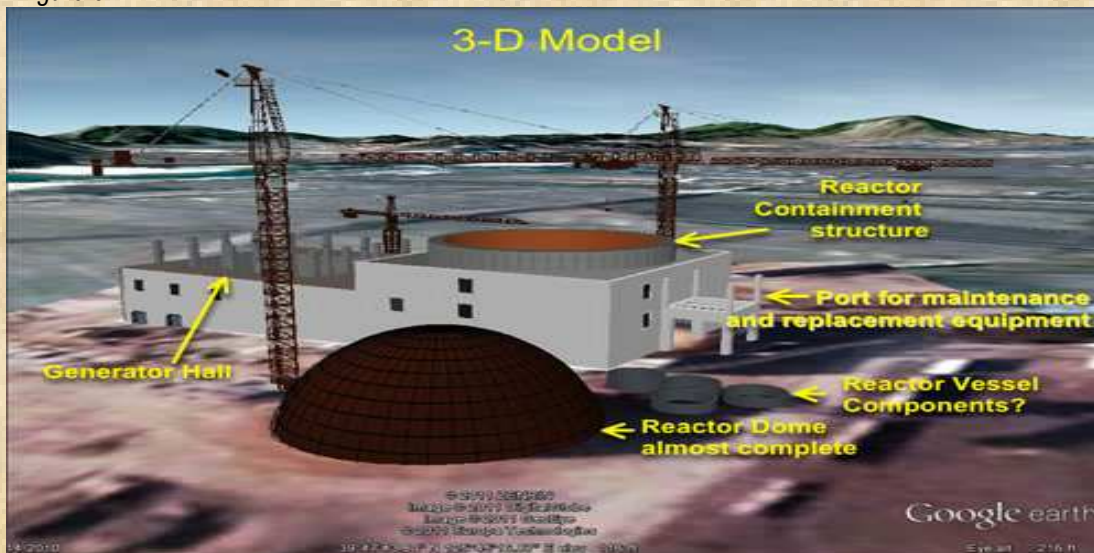
Close-up overhead image of the new reactor site. This is the most up-to-date image publicly available.



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Using overhead images from Figure 4, we constructed a 3-D model (Figure 5) of the light water reactor using the open-source program Google Sketchup. Based on the model, it is obvious that the reactor's exterior is almost complete. The model also provides perspective on the size of the reactor, which will be 40 meters tall when completed and stretch 20 meters in diameter.

Figure 5



Three-dimensional model of the light water reactor based on the latest satellite images.

Our analysis confirms Pyongyang's plan to use this experimental reactor for electricity production. The rapid progress of construction also demonstrates that North Korea still has impressive manufacturing capabilities, in spite of the last two decades of economic downturn. However, we view this progress with alarm. Was the seismic analysis of the reactor site sufficiently rigorous? Did the regulatory authorities have the skills and independence required to license this reactor in such a short time period? And do Yongbyon specialists have sufficient experience with the very demanding materials requirements for the internal reactor components, including the pressure vessel, steam generator, piping, and fuel-cladding materials?

Although the North Koreans have constructed the outside of the reactor buildings at an impressive rate, we do not believe the reactor will be operational by the originally stated completion date in 2012. Analysis of overhead images shows the North Koreans are almost done with the easy part of constructing a reactor -- the civil engineering work. Constructing and assembling the internal components of a pressurized water reactor are extremely difficult processes, successfully mastered by only a few technically advanced countries. The mechanical and electrical scope of the reactor's construction are only starting, however, and those phases of the construction process will likely require at least two additional years.

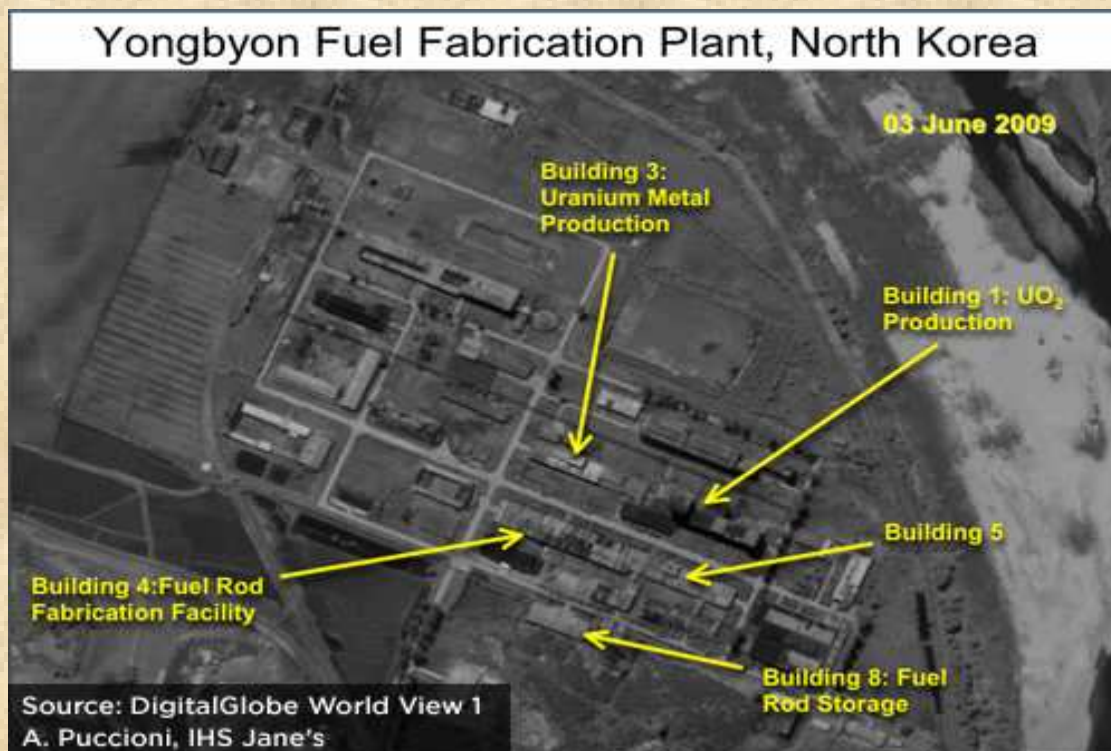
**The uranium enrichment centrifuge plant.** Since Hecker, Carlin, and Lewis visited the newly constructed uranium enrichment plant in Yongbyon on November 12, 2010, as far as we know no foreigners have been given access to the facility. Our requests for a return visit have so far been denied. By tracking the construction of the Yongbyon centrifuge plant via overhead photography, however, we have concluded that North Korea must also have an undisclosed, pilot-scale centrifuge plant. Figure 6 shows the fuel fabrication plant as it existed in June 2009, only a few months after Pyongyang announced it would construct a pilot light water reactor and produce low-enriched uranium to power it. (The North Koreans previously denied having a uranium enrichment program.)

Building 4, the fuel rod fabrication building, which housed the centrifuge plant we visited, looks the same as when the International Atomic Energy Agency inspectors were expelled in April 2009.

Figure 6







June 3, 2009 image of the fuel fabrication plant at the Yongbyon nuclear complex.

On September 4, 2009, however, North Korea's permanent representative to the United Nations announced that his country's "experimental uranium enrichment has successfully been conducted to enter into completion phase." This success must have been achieved at a different facility, because Building 4 could not have been readied in time. To house the 2,000 centrifuges we saw, the building was totally gutted and retrofitted with a clean, modern heating and air conditioning system; the exterior was refurbished and covered with a new blue metal roof. Moreover, we were told in November 2010 that the facility became operational only days before our arrival.

The fuel fabrication facility also had to be reworked and expanded to support the centrifuge plant. The now-disabled 5-megawatt electric reactor used uranium alloy metal fuel rods, which required the ability to convert uranium oxide to uranium tetrafluoride, which is in turn converted to uranium metal for the fuel. During the Agreed Framework's freeze on nuclear activity, however, the hydrofluorination equipment for making uranium tetrafluoride corroded, and the building housing that equipment was abandoned. During the November 2010 visit, the chief process engineer told us that the North Koreans had replaced the old aqueous process for making uranium tetrafluoride with a new anhydrous process. He also said that they have installed fluorination equipment to turn uranium tetrafluoride into uranium hexafluoride, which is used as the feed gas for the centrifuges.

The overhead images in Figure 7 show that a number of buildings at the fuel fabrication plant were either retrofitted or newly constructed between June 2009 and November 2011. The building with the blue roof, Building 4, houses the centrifuge plant; the one on the lower left is believed to be a recreational building.





Figure 7

The fuel fabrication plant in November 2010, with annotations identifying newly constructed buildings on the site between June 2009 and November 2011.

We are not certain what the other buildings contain, but equipment had to be housed for uranium tetrafluoride and uranium hexafluoride production, and an entirely new set of equipment had to be installed to make uranium oxide fuel pellets for the light water reactor. In addition, either zircaloy tubing or stainless steel tubing must be produced to clad the light water reactor fuel and fuel assemblies, which



are very different from those previously used at Yongbyon.

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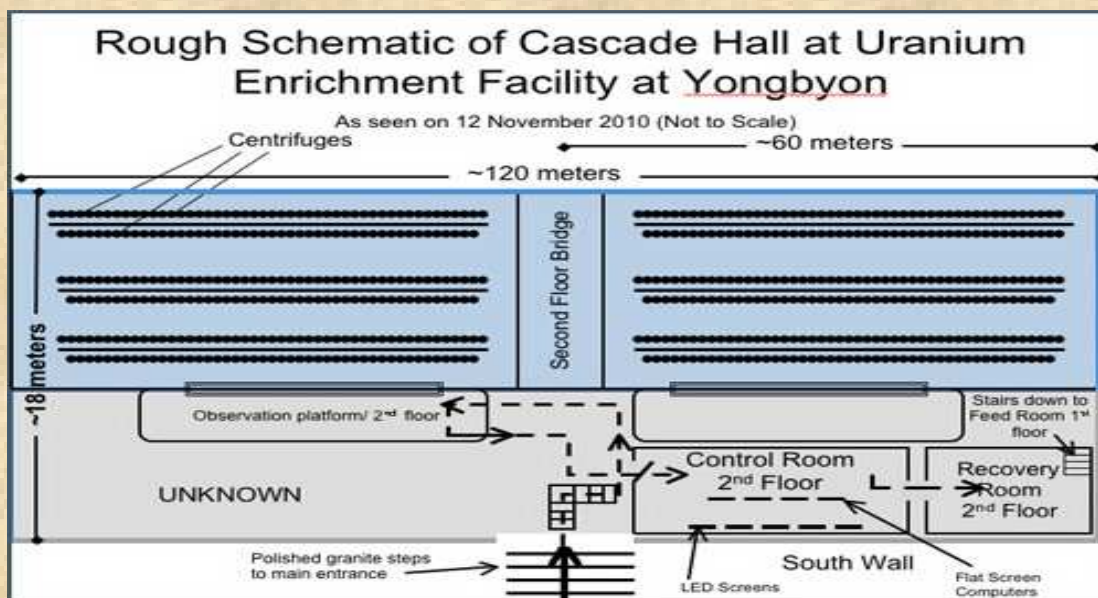
Based on overhead-imagery analysis and our recollection of Building 4, we constructed the 3-D model of the centrifuge building shown in Figure 8. We have also labeled where the centrifuge hall, the control room, the recovery room, and the feed room are located within the building.

Figure 8

Three-dimensional model of Building 4 (the new uranium enrichment centrifuge plant) in the fuel fabrication plant, created using the latest satellite images.

Figure 9 is a rough schematic of the interior layout of the building. In the November 2010 visit, we observed approximately 2,000 centrifuges, divided into six cascades, from the second-floor observation platform identified in the diagram. Unless Pyongyang allows access to this facility, however, the world will not know if it is fully operational -- nor will the world know much about the sophistication of other undisclosed facilities.

Figure 9



A rough schematic of the floor plan for the cascade hall at the uranium enrichment centrifuge facility (Building 4) in Yongbyon, as of Nov. 12, 2010.

**How will Kim Jong-il's death influence Pyongyang's nuclear calculus?** Though probably less cataclysmic than some observers anticipated, the death of leader Kim Jong-il in December has introduced new uncertainties into the North Korean picture. There have been notable continuities in Pyongyang's perspective and basic policies over the past 50 years, and we expect those to remain in place. For example, the North has always seen itself as besieged on all sides, without permanent, trustworthy allies. That has made it suspicious of foreign advice and highly resistant to outside blandishments. With young Kim Jong-un at the helm, Pyongyang may be more susceptible to both external and internal developments. Nevertheless, without significant change in the external security environment -- probably much more change than either Seoul or Washington can deliver -- we would expect the North to remain a tough customer to deal with.

Perhaps the greatest challenge at the moment is to divine how internal dynamics during the political succession -- even one well-scripted and moving apace, as the North's seems to be -- might nudge national security decisions one way or the other. In the case of the nuclear issues, the boundaries that we once thought we understood have now become harder to discern. One concern is that the likelihood of nuclear or missile tests over the next year may have grown.

During an October 2010 military parade, Pyongyang displayed a new class of road-mobile, intermediate-range ballistic missiles: the so-called "Musudan," capable of being armed with a nuclear payload and with an estimated range of up to 3,000 kilometers.



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The Musudan is derived from the Soviet 1968 submarine-launched SS-N-6 missile. Although it has not been flight-tested, the Musudan would represent a major escalation of North Korea's nuclear threat if Pyongyang is able to build a miniaturized nuclear warhead to fit it -- a feat that we believe cannot be accomplished with confidence without at least one additional nuclear test.

Kim Jong-il's apparent attempts to avoid crisis, preserve "stability," and support the then-envisioned succession process has been overtaken by his mortality. In the current leadership circumstances, Pyongyang's definition of stability might be quite different. Certainly, the North's early media commentaries in the wake of Kim's death highlighted as one of his signal accomplishments the country's becoming a nuclear weapons state -- a not unexpected emphasis, but not a hopeful signal, nevertheless. (In contrast, after the transition from Kim Il-sung to Kim Jong-il, the North repeatedly maintained that denuclearization of the Korean Peninsula was one of Kim Il-sung's deathbed wishes.) Further complicating the picture is the North's long-term fixation on light water reactors as a solution to its severe energy problem. Pyongyang's goal of energy independence and security, which is married to the notion that a nuclear power industry is a potent political symbol, may not be something that Kim Jong-un is willing to abandon. Unless that idea is either broken or an alternative is supplied (something other than heavy fuel oil, which has become a tattered Band-Aid), the nuclear energy issue will probably remain unresolved. The United States should not challenge Pyongyang's right to have nuclear electricity but instead provide a more pragmatic energy solution.

When the Korean Peninsula Energy Development Organization (KEDO) still existed and was confidentially reviewing options other than nuclear power with Pyongyang, the most promising substitute was natural gas power plants. (The KEDO organization was established as part of the Agreed Framework to provide North Korea with two modern light water reactors, but it was effectively terminated in 2002 after the Bush administration accused Pyongyang of cheating on the agreement.) The problem, of course, was that the North had no infrastructure to handle -- much less access to a supply of -- natural gas. Recent Russian-South Korean-North Korean consideration of a Russian pipeline might provide new opportunities to revisit the issue.

On the upside, diminution of what Pyongyang perceives as an external threat could provide circumstances in which the new leadership might entertain bolder moves -- further encouraging tension reduction and experimenting with new approaches on the economic front. For years, the Chinese have advised Washington that even Deng Xiaoping could not have moved ahead with his economic reform program if he had not first been able to reduce the external threats Beijing feared from the Soviet Union and the United States. By encouraging improvements in the security environment, Washington and Seoul could possibly set in motion a series of mutually reinforcing steps that would finally get at legitimate US concerns about both the North's nuclear weapon and missile programs.

*The authors wish to thank Dr. Chaim Braun, Stanford University, and Allison Puccioni, IHS Jane's, for their valuable input.*

### Interpol chief: No specific intelligence 2012 Olympics will be targeted

Source: [http://www.washingtonpost.com/world/europe/interpol-chief-in-london-for-talks-after-reports-that-european-nations-failing-passport-checks/2012/01/19/gIQA7Zj59P\\_story.html](http://www.washingtonpost.com/world/europe/interpol-chief-in-london-for-talks-after-reports-that-european-nations-failing-passport-checks/2012/01/19/gIQA7Zj59P_story.html)

Interpol's chief sounded an alarm Thursday that countries are still failing to check identity documents against its database — a warning that comes just months before the 2012 Olympics.

Ron Noble, secretary-general of the international police agency based in France, said out of the 1.1 billion travelers last year, ID documents of about 500 million people were not checked against Interpol's database, which is one of the world's most detailed.

"It will take a tragedy — a specific kind of tragedy — for behavior to change," Noble told The Associated Press after speaking to foreign correspondents in London.

Noble has said Britain is the only EU country to systematically check passports against those registered with Interpol as missing worldwide. Britain carried out 140 million checks last year against the database — more than the rest



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of Europe combined.

Last year, he said more than 11,000 people were caught trying to enter the U.K. using lost



or stolen passports.

France carried out the second-highest number of checks at 10 million.

A special Interpol team will be sent specifically for the Olympics, helping British authorities determine whether anyone trying to enter the U.K. is wanted, whether their documents have been listed as lost or stolen and whether they are considered a threat.

He said the team will be smaller than the one Interpol sent to South Africa for the 2010 World Cup — an event where teams were at border crossings and airports.

“We know terrorists use fraudulent ID documents,” Noble said.

The U.K. Border Agency faced intense criticism last year after passport checks were relaxed during the height of the summer tourist season to lessen lines at London’s Heathrow Airport, Europe’s busiest. A government report on Thursday blamed poor communications, a lack of supervision and other shortcomings for the problems.

Olympics security has been a primary concern since 1972, when 11 Israeli athletes and coaches were killed at the Munich Games.

Noble said while there was no specific intelligence that the games would be targeted, such events provide an array of opportunities

for criminals, including pickpocketing, forced prostitution, illegal Internet betting rings and hoaxes.

And then there is still the threat of terrorism. Noble said while al-Qaida’s ranks had been depleted, affiliates were actively recruiting in places like Somalia.

**Another fear that Noble said “keeps him up at night” is the threat of a nuclear or biological attack. Interpol has been alerted to some 2,715 instances where there were questions of whether there had been illicit trafficking of nuclear material.**

Noble stressed, however, that didn’t mean there were more 2,000 cases of trafficked nuclear material.

While most of the cases involved non-nuclear radioactive material cases — 2,535 — there were 200 cases involving nuclear material. Only four cases involved the attempted sale of highly enriched uranium, Noble said.

The U.S., he said, had the most cases in the database — mostly because of its reporting through the U.S. Nuclear Regulatory Council. After that, Eastern Europe has had the most and some of the most significant cases of concern in terms of criminality, Noble said.

As for whether terror groups were becoming more capable of unleashing biological attacks, Noble pointed to advances in both technology and biotechnology. He said the risk was increasing — partially because technology can be misused — but that did not mean there was an increased likelihood of a bio-terrorist attack.

“It’s so easy to think about how an attack can be carried out because the screening of passengers doesn’t focus on that at all,” Noble said. “That’s why it’s important to identify people who are engaged in conduct that is suspicious or illegal.”

Noble is American and a former head of the U.S. Secret Service. Interpol is based in Lyon, France.

## Nuclear material stolen from Egyptian nuclear power plant site

Source: <http://www.globalpost.com/dispatch/news/regions/middle-east/egypt/120119/nuclear-material-stolen-egyptian-nuclear-power-plant->

**Dabaa, the coastal town where Egypt’s first nuclear power plant is under construction, saw clashes last week between government forces and locals angry over loss of land to the project.**

Egypt reported that radioactive material was stolen from the site a nuclear power plant on its northern coast, according to Reuters.



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The plant, which is unfinished and would be Egypt's first nuclear power plant, is located in a town called Dabaa and is west of Alexandria on the Mediterranean Sea. Protesters have been demanding the plant be relocated because they have lost land to the project. But the sit-ins

There have been conflicting reports regarding the Nuclear Stations Authority committee that went to inspect the site on Thursday in order to assess the damages.

It was rumored that committee members refused to enter the site upon hearing that



escalated on January 13 and government security forces clashed with demonstrators.

Reuters reported: "Soldiers and the protesters hurled stones at each other and exchanged gunfire after the protesters demolished a wall surrounding the site, a security source and witnesses said."

Egyptian newspaper Al Masry Al Youm reported:

The plant's construction site was looted and vandalized earlier this week, resulting in LE500 million in losses.

safes containing radioactive elements were missing.

However, Electricity Ministry spokesperson Aktham Aboul Ela denied that there were signs of radioactivity. "We found chemicals in two locations, but they are not hazardous," he said. Reuters reported that an official from the International Atomic Energy Agency in Vienna said what was stolen were "low-level radioactive sources," but would not elaborate. Egypt has requested assistance in recovering the stolen material.

### Radioactive Material Stolen in Egypt

Source: <http://www.stratfor.com/analysis/radioactive-material-stolen-egypt>

#### Summary

Calibration devices that may contain radioactive material were reportedly stolen from a contentious nuclear power plant that is under construction Jan. 18 in Dabaa, Egypt. Due to the small amounts of radioactive material that would be in each device, the threat of malicious exposure to radiation is very low, though accidental exposure is a possibility.

In fact, given the public discontent over the power plant, it is likely that the thieves do not know what the devices are and only took them as part of a larger theft intended to delay the plant's construction.

#### Analysis

Egyptian state-run newspaper Al-Ahram on Jan. 19 reported



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the theft a day earlier of calibration devices that may contain radioactive material from a controversial nuclear power plant under construction in Dabaa, Egypt. The identities of the thieves are unknown, but it is possible that they are local Bedouins, who have been vandalizing and violently protesting against the plant, which is being built on land taken from them without compensation.

If the stolen devices do contain radioactive material, that material could be extremely dangerous, but it is unlikely that the thieves even know what they possess. The radioactive devices were likely just part of a larger theft intended to delay the plant's construction. For this reason and others, the threat of malicious radiation exposure is very low. Instead, the greater risk is from accidental exposure.

It is still unclear what the stolen devices actually were. An unnamed source at the International Atomic Energy Agency (IAEA) reported Jan. 19 that tools used to calibrate measuring devices were stolen from the nuclear power plant in Dabaa. Subsequently, an official IAEA statement said the stolen items were "low-level radioactive sources." A statement from Egypt's Atomic Energy Agency and Ministry of Electricity and Energy, which certainly would have an incentive to downplay the incident's significance, indicated that the stolen devices were used to calibrate monitoring stations that track the amount of radioactivity at the site. Based on these statements, it is possible that the stolen devices calibrated radiation detection devices at monitoring stations.

Officials have not identified the radioactive material in the stolen devices, but it could be cesium-137. Radiation detection devices need to be calibrated at regular intervals, and cesium-137 is typically used as the radioactive source during calibration. It appears in amounts of less than 1 milligram in these devices, which gives off much less than 1 curie of radiation, the amount at which the device would require special handling.

But even at that amount, cesium-137 is an extremely dangerous isotope. It emits both gamma rays and beta particles, making it difficult and dangerous to handle, and it has a

half-life of 30 years, which extends the time that exposure would be dangerous. In addition to the threat of radiation poisoning and potential carcinogenic effects, cesium-137 also is dangerous because it can mimic potassium, making it easily absorbed by the body, where it can interfere with basic biological processes.



The number of devices stolen has not been released, so it is impossible to know the exact amount of radioactive material the thieves possess. However, the amount is likely extremely small.

Consequently, if the material itself were sought for criminal use, it would most likely only be useful to poison a targeted individual. Radioactive isotopes have been used as a method of poisoning before. For example, former Soviet and Russian intelligence officer Alexander Litvinenko was killed by exposure to polonium-210 in the United Kingdom in 2006.

The greatest potential threat to the broader populace lies in accidental exposure after improper disposal of the devices containing radioactive material. In 1987, 1,000 Brazilians were exposed to radioactivity when cesium chloride was removed from salvaged medical equipment. Two hundred forty-four people showed significant exposure and four died as a result. In 2010, eight people in India were hospitalized due to exposure to cobalt-60, another radioactive isotope, after an unidentified object was dismantled at a scrap shop. No deaths resulted from the incident.

If cesium-137 was in fact the material in the stolen devices, the overall risk for exposure is low. The radioactive material would be securely contained within the devices and would need to be removed, either by brute force or a systematic dismantling of the device. Additionally, each device contains such a small amount of the radioactive material that the yield from each device would need to be combined in order to produce an amount of any significance. That requires knowledge of the purpose of the devices.

This is knowledge that the thieves probably do not have. In addition to participating in violent clashes that have killed two people and injured at least 41 over the past week in



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Dabaa, Bedouins have damaged an estimated 500 million Egyptian pounds (about \$83 million) worth of machinery at the nuclear power plant and stolen several computers, cables, furniture

and transformers from it. The calibration devices may have been another item these Bedouins took, not knowing they contain radioactive material.

## Nuclear Terrorism: A Rationale Choice For Terrorists? – Analysis

By Muhammad Jawad Hashmi

Source: <http://www.eurasiareview.com/26012012-nuclear-terrorism-a-rationale-choice-for-terrorists-analysis/>

Nuclear terrorism is defined as the use of a nuclear device by a terrorist organization to cause massive devastation or the use (or threat of use) of fissionable radioactive materials; “assaults on nuclear power plants is one form of nuclear terrorism.” The term nuclear terrorism is understood to be a terrorist act using a nuclear or radiological weapon intended to kill or capable of killing hundreds or thousands of people with one attack. Nuclear terrorism at times has also been defined as the world’s most dangerous terrorists acquiring the world’s most dangerous weapons.

The term “nuclear terrorism” encompasses a broad range of possible criminal acts. It includes actions against nuclear facilities, military or civilian, including vehicles transporting nuclear weapons, components, or materials; and those in which nuclear weapons, explosive devices, or materials are used to threaten or actually destroy people and property. The first type of action might serve as a precursor to the second; terrorists might assault or infiltrate a facility to steal a weapon or material for use in a future nuclear threat.

### Global Concerns over Likelihood of Nuclear Terrorism

The discussion regarding nuclear terrorism first came in sight during 1970s; later on it took on a larger public character in the 1980s after NBC aired Special Bulletin, a television dramatization of a nuclear terrorist attack on the United States. In 1986 a private panel of experts known as the ITFPT (International Task Force on the Prevention of Terrorism) released a report urging all nuclear armed states to beware the dangers of terrorism and work on equipping their nuclear arsenals with permissive action Links. The experts warned that the probability of nuclear terrorism “is increasing and the consequences for urban and industrial societies could be catastrophic.”

Since the creation of the atomic bomb, government officials, scientists, and concerned citizens have been aware that weapons of mass destruction could fall into the hands of dangerous terrorist groups or rogue regimes. Bruce Hoffman mentions that there were least fifty two incidents of terrorist’s threats to use WMD during 1968-1994.

The alarmists such as Scott D. Sagan threatens the world that the proliferation of nuclear weapons will lead to the spread of nuclear weapons into terrorist hands, or to such countries where there is a risk of terrorist access to such weapons. Before 9/11 many international security specialists claimed that terrorists were not interested in creating mass fatalities.

These attacks, which have resulted in thousands of deaths and injuries, have raised concerns

that the constraints on terrorists against committing mass murder have been breached, and that next time terrorists may use nuclear weapons or other weapons of mass destruction. Since 1995, there have been three significant episodes that bear out the danger that terrorists can have access to — and no scruples about using — devices, substances or weapons with the potential for mass killings. These episodes also manifest that preparation for acts of terrorism with such weapons of mass destruction or devices may be difficult and at





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times impossible to detect. The Aum Shinrikyo attacks on the Tokyo Subway in 1995 resulted in the death of 12 people and some 6000 were injured, the unsolved anthrax attacks in the United States (Florida, Washington and New York) in October 2001 are the first two. The third is the poisoning of Alexander Litvinenko in London in 2006 with Polonium-210.

According to the Los Alamos National Laboratory in the United States, Polonium-210 is 250 billion times more toxic than hydrocyanic acid, the chemical used in Nazi gas chambers. Polonium-210 has been used as part of the trigger process in many nuclear weapons and the main grounds for suspicion that Iran wants to develop nuclear weapons is based on Iran's reported experimentation with this substance. Though this case is still being investigated by Britain's anti-terrorist police, most scenarios suggest that it can be read in one of only two ways. First, though the event may not have been an act of nuclear terrorism, it has to be taken as a warning of how undetectable the preparations for nuclear terrorism might be. Second, the death may have been the result of an active plan to conduct nuclear terrorism.

In contrast to the nuclear weapon case, Christoph Wirz and Emmanuel Egger conclude from their study that there are in principle no impossible obstacles to the acquisition and use of radiological weapons by a well-organized terrorist group, even though such an action remains high-tech and thus very difficult. During the 2008, the President Barack Obama said that nuclear terrorism is "the gravest danger we face." Former US President George W. Bush views this alarming threat in such remarks;

"The gravest danger to freedom lies at the crossroads of radicalism and technology. When the spread of chemical and biological and nuclear weapons...occurs, even weak states and small groups could attain a catastrophic power to strike great nations..."

It would be a milestone; timely for ongoing efforts to consolidate the non-proliferation regime, combat nuclear terrorism and strengthen nuclear safety says Mohammad ElBaradei.

### Why Terrorists Potentially Want to go Nuclear?

Nuclear weapon is the most dangerous weapon that mankind has ever made. These weapons are ultimate weapons for ultimate

destruction. Terrorists have been struggling for the publicity throughout the time and WMD may sever as an attention-getter stunt. Nuclear terrorism becomes a lucrative option for the terrorist organizations only because of lethality of nuclear weapons. Historically speaking, it has been observed that terrorists have been pursuing weapons which are increasingly lethal. Indeed, the acquisition of any type of nuclear weapon would boost their confidence as well as degree of terrorist-actions. This inclination towards nuclear weapons or material could be well observed in the case of biological and chemical agents which are being used by terrorist groups/individuals in USA and else where. So, based on this premise it can be proposed that the tendency towards the acquisition of WMDs and their usage would increase in near future.

It is acknowledged that terrorist organizations are relatively weak in terms of power, prestige, and security, when compared with large states. So, these factors become a key to understand the dynamics of acquisition of nuclear technology by terrorist organizations. Terrorists have been constantly struggling to gain more and more power against their adversaries to boost their striking potential and this could be understood by Morgehthau's definition that the possession of power is really the possession of coercive potential. Prestige is also related to power and also an integral component of international relations. Prestige could play a motivating role and is subject to constant change. Coercive potential is directly related to the perceived power and prestige in one way or other. For terrorists to be perceived as credible source of threat, they must be perceived as powerful and prestigious. This may lead to the acquisition of ultimate weapons by terrorist organizations to raise a high and prestigious voice to fulfil their objectives or blackmail the adversaries.

Security is also connected to power and actors feel more secure once they are powerful. The power and security dynamics may unleash terrorists to exercise the phenomenon of "might is right". The alarming episode is that terrorists might be observing that the sole solution to their problems is the acquisition of WMDs, which could ensure their power, prestige, security and enhance the credibility of their threats.



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To conclude one must understand that, terrorists are rational actors prevailing in the world. So, it can be assumed that the acquisition of nuclear weapons become more rational for terrorists as it may enhance the vulnerability of states. Similarly, it can be assumed that a terrorist group with nuclear weapon may pose a serious challenge of blackmail. At the same time terrorist

organizations might consider that nuclear weapon may create environment of deterrence against their adversaries. Furthermore, it can be assumed that terrorists may use nuclear or radiological weapon to create precedence, so that states may not try to underestimate their capabilities. It may enhance the credibility of threats posed by the non state actors in the upcoming era.

*Mr. MJ Hashmi is M.Phil in Defence and Strategic Studies. He is an Author of a book entitled as "Nuclear Terrorism in Pakistan: Myth of Reality?" His Area of interest is Nuclear Terrorism, Nuclear Safety and Security issues in Pakistan, Arms Control and Disarmament, Nuclear Non-Proliferation.*

### Virtual Plumes – The Emergency Preparedness Solution

Source: <http://teletrix.com/products/virtual-plumes/>

Virtual Plumes is a software program used to develop Emergency Preparedness drill scenarios. Mobile field teams equipped with Teletrix simulators are presented with radiation exposure rate readings in a real time virtual environment that mimics exposure rates they would see in an authentic radioactive plume release. Virtual Plumes software provides the ability to model a radioactive plume release that in conjunction with Teletrix Simulated Radiation Meters, SP900 Probe Paks and SD900 Simulated Alarming Dosimeters provide state of the art training for emergency preparedness drills. All functions of plume modeling, execution, detection and dose monitoring for field teams are accomplished in a completely simulated environment.

#### How Virtual Plumes Works with Teletrix Simulators

Plume release parameters are loaded into the laptop-based Virtual Plumes software and dynamically presented to vehicle-mobile field teams monitoring the simulated release with Teletrix Simulated Radiation Meters, SP900 Probe Paks and SD900 Simulated Alarming

Dosimeters. Virtual Plumes knows where the field team is as it displays real time location via GPS to the projected plume's travel. Virtual Plumes then generates a 1-meter, window closed dose rate reading or a ground frisk



count rate reading which is sent to the various Teletrix simulators being used by the team. The team monitors the activity of the plume using the simulators and responds to the obtained readings as if exposed during an actual event. The field team relies on its instrumentation to make decisions...just like they would

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have to in a real emergency.

Coaching, verbal cues and other prompts are eliminated from emergency preparedness exercises as trainees learn to measure plume activity and operate their instruments through the realistic use of simulators and experience of actually performing monitoring tasks. Once

the exercise is terminated, the scenario can be replayed for debrief and feedback.

No other emergency drill exercise matches the realism available through the use of Virtual Plumes and the hardware simulation of Teletrix.

### Al Qaeda In Pursuit Of Nuclear Weapons/Radiological Material

By Muhammad Jawad Hashmi

Source: <http://www.eurasiareview.com/29012012-al-qaeda-in-pursuit-of-nuclear-weaponsradiological-material-analysis/>

The pursuit of nuclear weapons and material by sub national groups has been an alarming challenge to deal with. This article will examine groups like al Qaeda that are said to have the ability and motivation to pursue nuclear



capabilities. This study simultaneously provides an insight into the issues related to the demand for these weapons capabilities and their supply. According to Daniel Metraux, on the demand side of the nuclear market there are small national groups working with political or religious belief structures that may be stirred to pursue massive devastation. Some of these groups have large financial and organizational resources, together with the physical assets. Some of these groups also enjoy sanctuary either in a lawless grey zone or as guests of the local rulers where they can pursue their plans. On the other hand, in Japan, extensive legal protections for religious organizations operate in a very permissive environment without much state interference.

The supply side of the nuclear market indicates that such opportunities to acquire nuclear material and expertise are potentially numerous for such groups or such terrorist organizations.

The A.Q. Khan network revealed that people from inside a state weapons program in certain circumstances, take advantage of their expertise, access, and control over equipment and material for considerable profit and personal benefits. There is also the huge nuclear weapons inventory and production complex of the former Soviet Union (FSU) possessing a vast potential source of supply.

The Russian inventory of nuclear weapons, particularly tactical weapons, remains larger than any other in the world. In its report, the National Intelligence Council (NIC) indicated that Russian nuclear weapons storage facilities are facing vulnerabilities to an extent that an insider can attempt unauthorized actions.

The low funding, lack of trained security personnel, and insufficient equipment for security storing of such material brings Russian facilities housing weapons-usable nuclear material under the constant threat for leakages. It is therefore recognized by the Moscow that there must be a need for increased security and assistance from other countries that have robust nuclear command and control systems. The interest of some terrorists in nuclear weapons, the potential opportunities for acquiring nuclear weapons or material, and a number of non-traditional weapon designs, some of which may use previously uncontrolled strategic nuclear materials, all highlight the potential for terrorists acquiring nuclear weapons in an unprecedented fashion.

Security briefings suggest that jihadi groups are also close to producing “workable and efficient” biological and chemical weapons that could kill thousands if unleashed in attacks on the West. This is quite vivid in case of Al Qaeda which is trying to



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secure nuclear weapons, says Barack Obama: “Al-Qaeda is trying to secure material for nuclear weapons and would have “no compunction in using them”, President Barack Obama warned, as he welcomed leaders for the largest gathering in the US since the Second World War.”

The US president has set himself the mission of convincing fellow leaders from 45 nations that they face the same threat – and to establish a plan to secure every ounce of the world’s nuclear weapons-grade fuel.

According to Williams, former CIA Director George Tenet said that at least two suitcase nukes had reached Al Qaeda operatives in the U.S. “Each suitcase weighed between 50 and 80 kilograms (approximately 110 to 176 pounds) and contained enough fissionable plutonium and uranium to produce an explosive yield in excess of two kilotons.” “One suitcase bore the serial number 9999 and the Russian manufacturing date of 1988. The design of the weapons, Tenet told the president, is simple. The plutonium and uranium are kept in separate compartments that are linked to a triggering mechanism that can be activated by a clock or a call from the cell phone.”

### Attempts by Al Qaeda to Acquire Nuclear Weapons

Following is the detailed descriptive and prescriptive analysis of the world’s biggest terrorist organization which allegedly seems to be fully motivated to acquire nuclear capability for terrorist activities.

### Interest of Al Qaeda in Nuclear Weapons

It is a consensus among the world community generally, and the U.S. particularly, that Al Qaeda has actively pursued the acquisition of nuclear weapons. As the director of the Defence Intelligence Agency told the Senate Select Committee on Intelligence on 11 February 2003, “Al Qaeda and other terrorist groups are seeking to acquire chemical, biological, radiological, and nuclear (CBRN) capabilities.” It should be noted that to date there has been no public confirmation by officials that Al Qaeda has actually acquired nuclear weapons, or indeed any nuclear material necessary to build a weapon.

### Motivational Factors

There may be various reasons for Al Qaeda to acquire nuclear weapons, but two rationales

underlying its attempts to acquire nuclear weapons. First, may be the solemn religious duty, to defend co-religionists from the “Jews and Crusaders” and the second may be to inflict the maximum amount of physical damage on the United States.

Given their potential power, nuclear weapons are an obvious means to this end. On November, 2001 Al Qaeda announced, that we have chemical and nuclear weapons as a deterrent and if America used them against us we reserve the right to use them.

### Efforts for CBRN (Chemical-Biological-Radiological and Nuclear Weapons)

Al Qaeda’s early efforts to develop nuclear weapons were not impressive. Mamdouh Mahmud Salim, bin Laden’s “top man” on nuclear matters and an early member of al Qaeda, was apparently the victim of a scam involving low grade reactor fuel. According to another researcher, “intelligence sources now believe that criminals sold al Qaeda irradiated canisters purporting to contain uranium stolen from Russian army bases, whereas in fact the contents would have had no military value whatsoever it had been passed to rogue nuclear scientists.” Salim was finally arrested in Munich on September 1998, and extradited to the United States, where he awaits trial.

Al-Fadl testified that in 1993 he was sent to meet a man outside the capital who was selling uranium, allegedly from South Africa. He also testified that he did not know whether the deal ever took place, but that bin Laden was very serious about buying the material. According to press accounts, Osama bin Laden and his associates were tricked into paying for material called Red Mercury, which they believed to be weapons grade nuclear material.

In the mid 1990s, a number of smugglers claimed to have nuclear material that they referred to as Red Mercury, but in most instances the material was fictitious or radiological waste and not weapons grade nuclear material.

Sources alleged that the Taliban attempted to recruit a former Soviet nuclear weapons expert from a Central Asian state, but the plot was disrupted by Russian authorities.

Searches of al Qaeda facilities after Operation Enduring Freedom have produced little evidence of much progress in



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the al Qaeda nuclear weapons program.

### Pakistani Scientists & Al Qaeda: A Conspiracy VS Reality

Western concerns about the mythical relations between Al Qaeda and Pakistani scientists have been the source of unrest particularly after the 9/11.

It was reported that Sultan Bashiruddin Mahmood, a 38 year veteran of Pakistan's civilian nuclear program met with Osama bin Laden in Pakistan. But there are no further details regarding this meeting that could inform that this meeting was actually held.

Suleman Assad and Mohammed Mukhtar, two nuclear scientists suspected by the Americans for their involvement with al Qaeda or the Taliban fled to Burma during late 2001 or early 2002 to avoid questioning.

During the course of Operation Enduring Freedom, allied military forces exposed a number of documents related to nuclear weapons. Among them was a weapons design that experts who examined it characterized as unworkable, and other documents suggesting the group was also interested in a (RDD) Radiological Dispersion Device.

CNN obtained several papers from a suspected al Qaeda location in Kabul. Albright concluded that there was no evidence that the al Qaeda had gone beyond theory: "To create

a nuclear weapon, he said a designer must learn a whole set of manufacturing steps not mentioned in al Qaeda's manual and develop confidence in the weapon's design."

Other documents suggested a more sophisticated knowledge of nuclear weapons, although they contained mistakes, e.g. references to "Saturium."

### Future Prospects of Al Qaeda's CBRN Weapons Ambitions

There is not solid evidence that al Qaeda or indeed any terrorist group has acquired nuclear weapons, despite their burning desire.

Brigadier General Yossi Cooperwasser, the former chief of research for Israeli military intelligence said that we don't have any evidence to support concerns over lost, stolen or misappropriated nuclear devices.

However, while the likelihood might be low, the consequences of the terrorists' use of nuclear weapons are likely to be high.

On June 2002, an al Qaeda spokesman declared the organization's intention to kill four million Americans, albeit with chemical or biological rather than nuclear weapons.

The death of Bin Laden in Abbotabad in 2011, and the arrest of key al Qaeda's 53 lieutenants e.g. Khalid Shaikh Mohammed would create significant new hurdles for the group in the pursuit of their nuclear objectives.

*Mr. MJ Hashmi is M.Phil in Defence and Strategic Studies. He is an Author of a book entitled as "Nuclear Terrorism in Pakistan: Myth of Reality?" His Area of interest is Nuclear Terrorism, Nuclear Safety and Security issues in Pakistan, Arms Control and Disarmament, Nuclear Non-Proliferation.*

### US offers nuke clean-up help

Source: <http://www.news24.com/World/News/US-offers-nuke-clean-up-help-20120205>

The United States is offering technical assistance to Spain to clean up land contaminated by radiation from undetonated nuclear bombs that accidentally fell on the area in 1966, the US State Department announced on Saturday.

The Spanish and US governments have not yet reached an agreement on the clean-up.

At the request of the Spanish government, an American technical team led by the US Energy Department travelled to the southeastern Spanish town of Palomares in February 2011 to offer advice for the remediation plan.

"No final decision has been reached regarding cleanup of the site," the State Department said in a statement on its website.

On January 17 1966, a US B-52 bomber carrying four nuclear bombs collided with a KC-135 tanker during mid-air refueling off the coast of Spain. In addition to killing seven crew members on the airplanes, three hydrogen bombs fell to the ground near Palomares and one fell into the Mediterranean Sea.

The non-nuclear explosives on two of the bombs that hit the ground detonated, spreading



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seven pounds of plutonium over a 200 hectares. The bomb that fell into the sea was recovered intact after a search by the US Navy. "In 1966, we worked closely with Spain to remediate the accident site, and have collaborated with Spanish authorities for more than 40 years to monitor the site and the health of local inhabitants," the State Department statement on Saturday said.

Spanish Foreign Minister Jose Manuel Garcia-Margallo spoke with US State Department Secretary Hillary Clinton about the remediation this week during the Munich Security Conference in Germany, according to the Spanish newspaper Herald of Aragon.

Clinton is "personally committed" to resolving the contamination issue, Garcia-Margallo told the Spanish news media.

### 1966 PALOMARES B-52 CRASH

Source: <http://cline-disasters1.creekview-hs.wikispaces.net/Palomares%20Incident>

In 1966, at the height of tensions between the United States and the USSR, the USAF (United States Air Force) initiated operation Chrome Dome. This was an operation intended to keep nuclear armed B-52s in the skies patrolling the border of the former USSR, ready to strike in the event of a full scale war. However, like most military operations, Chrome Dome did far more damage than good. Three incidents in the late 1960s, including Palomares, resulted in B-52 crashes, dropping the H-bombs on board from 31,000 feet. In mid January 1966, a B-52 carrying four Hydrogen Bombs collided with a refueling plane at little more



damaged the B-52, ripping off the left wing. Four of the seven crew members managed to eject before impact, however three were killed in the initial explosion. The four H-bombs fell from the plane, and the two that landed in Palomares, Spain, detonated the conventional explosives inside, spreading **radioactive Plutonium** for miles.

#### Aftermath

The resulting explosions from the Palomares crash spread Plutonium, the main radioactive element in H-bombs, for miles around the small fishing community of Palomares. The town and surrounding areas were almost immediately evacuated, and many of the people alive in Palomares during the

than 30,000 feet. The resulting explosion destroyed the refueling jet, and severely



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incident suffered radiation levels far beyond the normal amount, causing cancers, radiation sickness, and several deaths. Over the next few months, over 1,700 barrels of topsoil and contaminated earth were removed and shipped to the United States to be disposed of. However, over forty years later, traces of radioactivity in the soil is still present. While the citizens of Palomares today do not report any side-effects to humans, the crops and livestock in Palomares have been reported to have cancerous conditions, reported to be likely from the contaminated soil and vegetation fed to animals. Locally, citizens were weary to swim in the waters of the Med. Sea, due to the fourth hydrogen bomb being lost at sea. Many were concerned about harmful levels of radiation leaking from the bomb, although the possibility of large amounts of radiation near the shoreline was extremely unlikely. While many were evacuated from Palomares, most were allowed to return after the bombs were recovered and the soil was decontaminated.

Globally, however, the Palomares Incident would mean large set-backs for the USAF (United States Armed Forces) and the government. Spain, unhappy with the carrying of armed nuclear weapons, closed its airspace to all military aircraft coming to

and from Gibraltar. Eventually, after two other nuclear B-52 crashes, Chrome Dome would be put to an end, realizing that it was simply too risky to carry nuclear weapons in the air at all times. Many opponents of the nuclear arms race used Palomares as an example of the environmental risks to such weapons.

### **Environmental Concerns**

Although the Palomares Incident was over 45 years ago, the radiation from the incident is still affecting southern Spain. While the citizens of Palomares do not report any damage to humans, several areas of Palomares and the surrounding areas are fenced off and claimed to be "uninhabitable." Over 50,000 cubic meters of radioactive soil is still present in Palomares, and while the clean up operations in the 1960s went fairly well, the disaster is far from fixed.

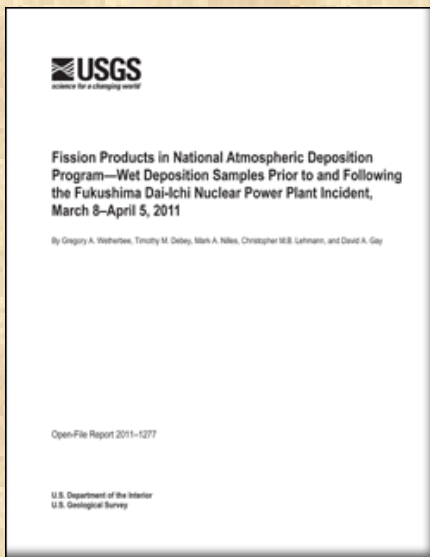
In my own opinion, the Palomares Incident ranks along with some of the worst environmental nuclear disasters. Had something like this happened in my community, if we even survived we would be forced to move, possibly hundreds of miles, and then worry about being exposed to extremely harmful levels of radiation. Those affected by the Palomares Incident were extremely unfortunate, and due to careless mistakes of others, were forced to leave their livelihood and some even lost their lives.

## **Fission Products in National Atmospheric Deposition Program—Wet Deposition Samples Prior to and Following the Fukushima Dai-Ichi Nuclear Power Plant Incident, March 8–April 5, 2011**



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Wetherbee, G.A., Debey, T.M., Nilles, M.A., Lehmann, C.M.B., and Gay, D.A., 2012, Fission

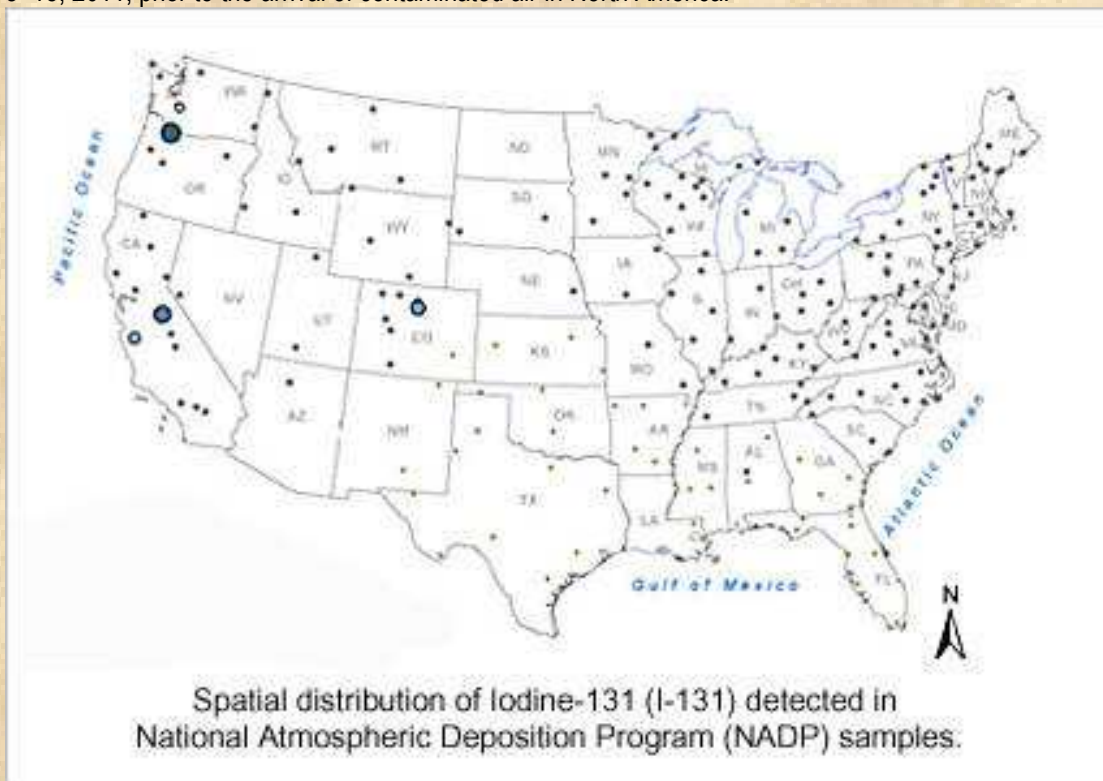


products in National Atmospheric Deposition Program—Wet deposition samples prior to and following the Fukushima Dai-ichi Nuclear Power Plant incident, March 8–April 5, 2011: U.S. Geological Survey Open-File Report 2011-1277, 27 p.

### Abstract

Radioactive isotopes I-131, Cs-134, or Cs-137, products of uranium fission, were measured at approximately 20 percent of 167 sampled National Atmospheric Deposition Program monitoring sites in North America (primarily in the contiguous United States and Alaska) after the Fukushima Dai-ichi Nuclear Power Plant incident on March 12, 2011. Samples from the National Atmospheric Deposition Program were analyzed for the period of March 8–April 5, 2011. Calculated 1- or 2-week radionuclide deposition fluxes at 35 sites from Alaska to Vermont ranged from 0.47 to 5,100

Becquerels per square meter during the sampling period of March 15–April 5, 2011. No fission-product isotopes were measured in National Atmospheric Deposition Program samples obtained during March 8–15, 2011, prior to the arrival of contaminated air in North America.







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that carry radioactive water," said Paul Gunter with Beyond Nuclear, which is based in Maryland. "The industry and the NRC are basically groping in the dark to find these leaks."

Tritium is a naturally occurring radioactive form of hydrogen, but it also is produced as a byproduct of the nuclear reactions in power plants like North Anna.

Tritium emits a weak form of radiation, the NRC said. Because it is produced by cosmic rays colliding with air in the atmosphere, the federal agency said, tritium is found in very small or trace amounts in groundwater throughout the world.

Exposure to radiation can have adverse health effects. For instance, radiation doses can increase the chance of getting cancer and causing genetic abnormalities in future generations.

"Last Friday, we received confirmation from an outside contractor that tritium at a sample point

exceeded the voluntary reporting level established by the nuclear industry in 2006," the company told the NRC on Tuesday.

"No detectible tritium was found in any of the other nine sample points within the protected area," Dominion Virginia Power said, "and there are no sources of drinking water in this area."

The company is collecting the contaminated water in subsurface drains and processing it on the plant site, Zuercher said.

The industry's voluntary threshold for reporting such contamination — which Dominion Virginia Power adheres to — is 20,000 picocuries per liter. The sample the company took showed a radiation concentration of 53,300 picocuries per liter.

Picocurie is a term that describes how much radiation and, therefore, how much tritium, is in the water. The EPA's maximum contaminant level for tritium in drinking water is 20,000 picocuries per liter.

In October 2010, Dominion Virginia Power reported a confirmed tritium sample of 16,500

picocuries per liter in another sampling point in the North Anna plant's protected area.

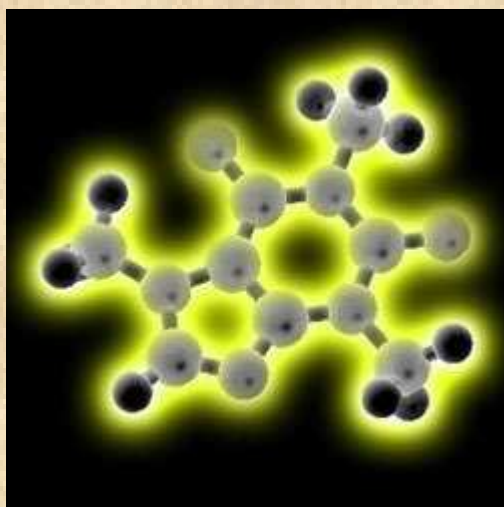
"We will continue to identify and repair any other potential sources," the company said.



## Researchers develop glow in the dark explosive detectors

Source: <http://www.homelandsecuritynewswire.com/srdetect20111219-researchers-develop-glow-in-the-dark-explosive-detectors>

Researchers at the Massachusetts Institute of Technology (MIT) have developed new explosives and chemical detectors that glow when dangerous substances are present.



The new technique combines fluorescent molecules with an open scaffolding system called a metal organic framework that provides space for molecules from dangerous substances to interact with the fluorescent molecules.

Mircea Dincă, an assistant professor of chemistry at MIT and the lead researcher, said this new sensor technique is

particularly useful as results can be read with a quick glance.

“A lot of known sensors work in reverse,” Dincă explained, with most “turning off” when they detect a target substance. “Turn-on sensors are better,” he said, because “they’re easier to detect, the contrast is better.”

“Present materials generally function via luminescence quenching,” and thus “suffer from reduced detection sensitivity and selectivity,” echoed Mark Allendorf, a research fellow at Sandia National Laboratory. “Turn-on detection would address these limitations and be a considerable advance.”

As an example, Allendorf pointed to a fluorescent detector designed for carbon dioxide. “The more gas you have, the more intensity in the response,” making the device’s readout more obvious, he said.

In addition, the molecules are so sensitive they can even detect changes in the viscosity of liquid like blood.

The research was made possible thanks to funding from MIT’s Center for Excitonics, which is supported by the National Science Foundation and the Department of Energy.

## Turn-On Fluorescence in Tetraphenylethylene-Based Metal-Organic Frameworks: An Alternative to Aggregation-Induced Emission

By Natalia B. Shustova, Brian D. McCarthy, and Mircea Dincă\*

Department of Chemistry, Massachusetts Institute of Technology, 77 Massachusetts Avenue, Cambridge, Massachusetts 02139, United States

*J. Am. Chem. Soc.*, 2011, 133 (50), pp 20126–20129





### Abstract

Coordinative immobilization of functionalized tetraphenylethylene within rigid porous metal-organic frameworks (MOFs) turns on fluorescence in the typically non-emissive tetraphenylethylene core. The matrix coordination-induced emission effect (MCIE) is complementary to aggregation-induced emission. Despite the large interchromophore distances imposed by coordination to metal ions, a carboxylate analogue of tetraphenylethylene anchored by  $Zn^{2+}$  and  $Cd^{2+}$  ions inside MOFs shows fluorescence lifetimes in line with those of close-packed molecular aggregates. Turn-on fluorescence by coordinative ligation in a porous matrix is a powerful approach that may lead to new materials made from chromophores with molecular rotors. The potential utility of MCIE toward building new sensing materials is demonstrated by tuning the fluorescence response of the porous MOFs as a function of adsorbed small analytes.

### Death of fourteen bomb dogs sparks \$1 million lawsuit

Source: <http://www.homelandsecuritynewswire.com/dr20111222-death-of-fourteen-bomb-dogs-sparks-1-million-lawsuit>

A firm that trains bomb sniffing dogs for law enforcement and military personnel is suing a transportation company for more than \$1 million over the deaths of fourteen highly-

trained canines bound for Afghanistan.



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Last December American K-9 Detection

had died when they were left unattended in an



Services shipped fourteen dogs to be deployed with American troops in Afghanistan, but the dogs never made it there.

The dogs were held overnight at the Animal Port Houston's George Bush Intercontinental Airport facility after it was not possible to send the animals on a same-day flight. An Animal Port Houston employee said the dogs would be housed in the company's kennel and then taken to their flight the next day. The following morning agents for the dogs' owners went to the shipping facility to find that all of the dogs

unventilated truck. Agents found traces of blood on the floor of the truck and some of the crates were damaged which suggested that the animals had desperately tried to escape.

American K-9 attempted to settle the matter out of court, asking for \$1.3 million in damages and \$30,000 in legal fees from Live Animal Transportation Services, the firm which handled the dogs at Animal Port Houston.

An agreement was not reached and the case is now proceeding to court.

### CBRN devise neutralization

By Warren Melia

Source:[http://www.linkedin.com/news?viewArticle=&articleID=996950043&gid=1946022&type=member&item=86719059&articleURL=http%3A%2F%2Ffeedurl.com%2FhYmvM&urlhash=4DzG&goback=.gde\\_1946022\\_member\\_86719059](http://www.linkedin.com/news?viewArticle=&articleID=996950043&gid=1946022&type=member&item=86719059&articleURL=http%3A%2F%2Ffeedurl.com%2FhYmvM&urlhash=4DzG&goback=.gde_1946022_member_86719059)

The threat of CBRN attack has been assessed as significant for over 10 years in the UK, the need for capability is well established and millions of pounds are spent annually on providing adequate protection to the public yet it is still a threat for which there is minimal dedicated response capability for. Analysts have compared this situation to the need for an insurance policy to cater for an incident that

may never happen - resulting in the decision to obtain minimal cover.

Historical incidents have highlighted the potential for mass casualties, 1984 Rajneesh sect in US infecting 751 casualties with Salmonella and in 1994 Aum Shinrikyo killing 19 and injuring 1900 with Sarin gas attack on the Tokyo subway. The main focus of CBRN provision has therefore



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been focussed on Mass Decontamination, Detection, Containment, and Mitigation to reduce the impact of a release and manage the consequences effectively rather than developing an effective response to neutralise a suspected CBRN threat.



# CBRN

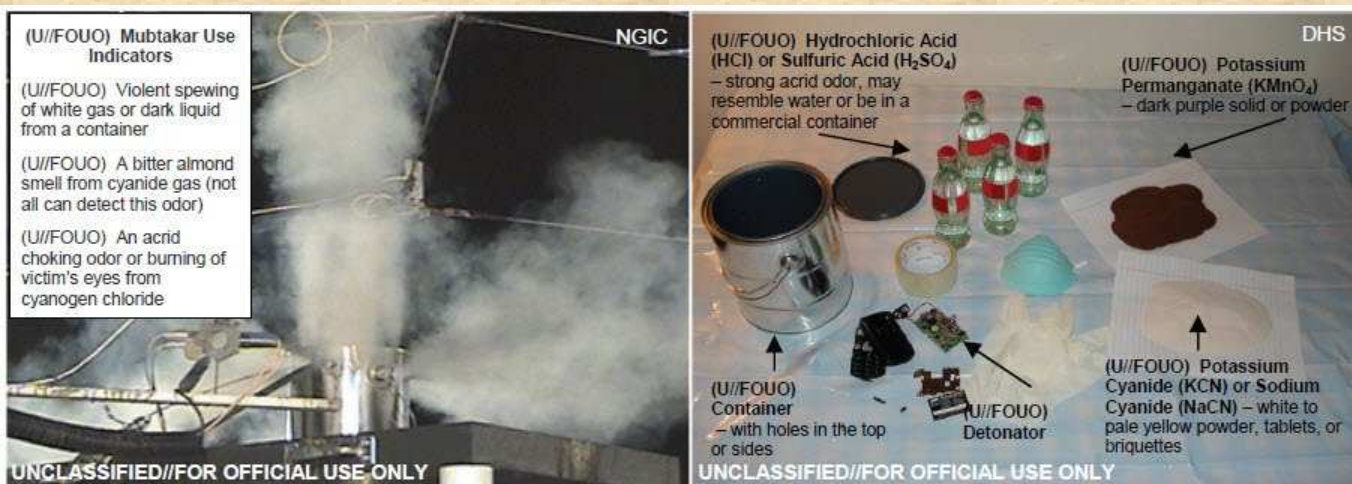
Resource Network

What has yet to be fully experienced is a multiple CBRN attack or prolonged campaign with simple devices such as the Mubtakkar chemical weapon designed by AQ and intended for use on subways in New York in 2005; my experience as both an EOD commander and FRS instructor has highlighted

proliferation and intelligence are other aspects which have received considerable attention and are potentially significant factors for the denial and deterrence of bulk quantities of quality CBRN materials being obtained illegally. A CBRN device is likely to include some form of improvised initiation system, a mechanism which is defined by the NATO definition for an IED:

*"A device placed or fabricated in an improvised manner which incorporates destructive, lethal, noxious, pyrotechnic or incendiary materials designed to destroy, disfigure or harass. They may incorporate military stores but normally use non-military equipment"*

Developing effective CBRN neutralisation capability has to be considered as an essential element of a National capability with an emergency level of capacity available to first



(U//FOUO) Demonstration of a mubtakkar release.

how few CBRN trained responders are aware of this existing threat, how it operates, or the hazards it poses. Current operational structures do not cater for neutralising this threat because EOD is still a separate capability to CBRN. A good example of this is the ORBAT of the NATO CBRN Task Force whose role is limited to detection, monitoring, sampling and protection. Another factor to consider is that commercial providers focus on selling detection and protection equipment which further isolates the need to incorporate neutralisation capability as a primary component of CBRN capability.

The development of comprehensive policy and multi-agency co-ordination planning is generally excellent with numerous training events taking place at National and Regional levels every year in many countries - all vital in mass casualties scenarios. Counter

(U//FOUO) Mubtakkar production indicators (mock-up).

responders. Dealing with the threat before it becomes a consequence is cheaper, the response quicker and ultimately this approach is much more effective in the long term. The European Defence Agency has taken a great step forward by developing a CBRN & EOD Planning Team in 2006 to study and exercise these 2 capabilities concurrently to examine their potential as a single strand.

Emergency neutralisation options for CBRN devices are limited, the consequences of failure are considerably high and this is possibly why capability has been focussed on consequence management. The question however is this - is it better to effect neutralisation and achieve something or to allow a device time to initiate as intended? Emergency neutralisation is a critical element of CBRN capability, in the event of a live incident this is the



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option which provides commanders with a time critical solution. Without it the only recourse is to prepare for a worst case scenario and wait for specialist teams to arrive.

CBRN capability that can be delivered by EOD teams includes: device diagnostics to quickly determine complexity and possible hazard; options for emergency neutralisation and emergency mitigation to reduce device effectiveness.

Terrorist attacks now rarely arrive in single numbers or with just one device, history has evolved the capacity for terror groups to understand how to achieve an aim despite elaborate and robust security measures. In 2006 the Target Europe study concluded that

25% of all terrorist plans since the mid-1990s were intended to be CBRN attacks. The need to execute terrorist attacks using multiple devices, distractions, secondary devices and hoaxes is also well established. An emergency neutralisation option delivered by an EOD team supported by CBRN assets will help to filter the incident categories quickly and enable task priorities to be determined effectively.

While considered and argued as essential, emergency neutralisation options do not need to be executed unless the Operational Commander believes it is viable and appropriate based on the perceived outcomes; deliberate plans can and should still be developed if time or intelligence permits.

*Warren Melia, MIExpE retired from military service in 2008 as the Command Senior Ammunition Technician at HQ Land Forces, where he was the technical advisor to the Capability Director for UK CBRNE operations. Since then, he has worked for West Midlands Fire Service Academy as a CBRNE instructor and is currently a freelance consultant.*

### New laser tech could detect roadside bombs

By Ben Coxworth

Source: <http://www.gizmag.com/lasers-detect-roadside-bombs/19882/>

A new system that utilizes laser light to detect the presence of explosive compounds could be used to identify roadside bombs

Approximately sixty percent of coalition soldier deaths in Iraq and Afghanistan are due to improvised explosive devices (IEDs), placed along the roads. Because these bombs are often planted in public areas, it is important to detect them in a way that doesn't harm the surrounding infrastructure, or unnecessarily require civilians to evacuate

nearby buildings. Researchers from Michigan State University believe that a laser-based system that they developed could fit the bill.



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at Princeton University.

The laser itself is similar in output to a simple presentation pointer. Used in conjunction with a camera, it would direct both short and long pulses of light at suspicious objects or areas. The short molecules cause the molecules of explosive substances to vibrate, while the longer pulses are used to "read" those vibrations, which are unique to each explosive substance.

One of the challenges of field detection of explosives is the fact that there are so many similar chemical compounds present in the environment, and they can mask the sought-after molecules. Using the laser system, however, even a billionth of a gram of explosives can reportedly be detected.

The Michigan State technology is now being developed by spin-off company BioPhotonic Solutions. A similar system is currently being researched

**MLK Parade Bomber****Horrific Hate Crime Prevented; Case Solved**

Source: [http://www.fbi.gov/news/stories/2012/january/hatecrime\\_011312/hatecrime\\_011312?utm\\_campaign=email-lmmediate&utm\\_medium=email &utm\\_source=fbi-top-stories&utm\\_content=62683](http://www.fbi.gov/news/stories/2012/january/hatecrime_011312/hatecrime_011312?utm_campaign=email-lmmediate&utm_medium=email &utm_source=fbi-top-stories&utm_content=62683)





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Had his homemade bomb gone off—one he had diabolically constructed using shrapnel coated with a substance meant to keep blood from clotting in wounds—Kevin Harpham would have undoubtedly caused the death and injury of many people at last year's Martin Luther

King, Jr. Day Unity March in Spokane, Washington.

Instead, Harpham was eventually caught and recently sentenced to

32 years in prison for a hate crime and other offenses related to the attempted bombing.

The case illustrates how a quick response by citizens and local law enforcement averted a tragedy, and how

teamwork and time-tested

investigative techniques

led to the apprehension

of an individual who has shown no remorse for his actions.

**"Clearly he intended to detonate the device, cause mass carnage, and then survey the devastation,"** said Special Agent Frank Harrill, who supervised the investigation.

**"Harpham was acting out against what he termed multiculturalism, but his hatred was firmly rooted in violent white supremacy. This was a prototypical hate crime."**



### A Bomb Designed to Kill

Kevin Harpham had been an artilleryman in the Army, and the bomb he meticulously constructed—using 128 fishing weights for shrapnel, each coated with an anticoagulant commonly found in rat poison—was not a typical improvised explosive device (IED). "JTTF members on this investigation have had experience on many other bombing cases both here and abroad," said Special Agent Joe Cleary, who worked alongside other agents, evidence technicians, and intelligence analysts on the Harpham case. "But none of us had ever seen this type of bomb in the U.S." Cleary explained that most IEDs are triggered with fuses or timers. "This was command-detonated," he said. "Harpham designed it so he could remotely control when the blast would occur and the direction in which the shrapnel would fly. He placed the bomb so it would explode directly across the line of the march, thereby inflicting maximum damage to the marchers. This was a weapon of mass destruction." When bomb experts from the FBI Laboratory reconstructed the device and detonated it, the results were sobering, Cleary said. "The shrapnel exploded with such a high velocity that some targets in the shape of humans were blown over, and a metal filing cabinet was perforated—it was filled with holes." "Harpham intended to use this extremely lethal weapon on individuals solely because of their race and perhaps their religion," Cleary said. "His plan was to wreak havoc on a crowd of innocents."

On January 17, 2011, as hundreds of people gathered in downtown Spokane to participate in the march, Harpham placed his backpack bomb along the parade route at Washington Street and Main Avenue. Alert city workers discovered the suspicious backpack before the

march started, and Spokane Police Department officials changed the route as a precaution. The Spokane Police and Sheriff's Office bomb squad was called in, and their precision in disarming the device enabled evidence to be preserved that would help lead FBI agents to Harpham.

The FBI's Joint Terrorism Task Force (JTTF) in Spokane immediately began an investigation, and JTTF members canvassed the region for batteries and other components similar to those used in the bomb. Within a month, in a small town about 60 miles north of Spokane, they discovered that a local outlet of a large retail chain was selling the same kind of fishing weights Harpham had used as shrapnel.

Store records showed there had been three large purchases of the weights in recent months—two were paid for in cash, but a debit card was used in one transaction, and it belonged to Harpham. At the same

time, the FBI Laboratory had been working to extract a DNA sample from the backpack which was later matched to Harpham through his military records.

Investigators also learned of Harpham's white supremacy postings on the Internet and his affiliation with a neo-Nazi group called the National Alliance.



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Because he lived in a remote, relatively inaccessible area and was likely heavily armed, our Hostage Rescue Team devised a ruse to lure Harpham out of his house. He was arrested March 9, 2011 without incident—but as agents suspected, he was armed when taken into custody.

“Kevin Harpham was the lone wolf that all of us in law enforcement dread,” Harrill said. “He lived alone

and he worked alone, and he didn't foreshadow the bombing plot in any meaningful way. He targeted those who were attempting to celebrate an event meant to unite society,” Harrill added, “and he was prepared to indiscriminately kill men, women, and children.”

On January 17, 2011, as hundreds of people gathered (above) in downtown Spokane to participate in the Martin Luther King Jr.



Day Unity March, Kevin Harpham placed a backpack bomb (inset) along the parade route on Main Avenue. The graphic shows the likely direction of the blast had the bomb detonated.

Harrill credited teamwork and strong partnerships for stopping Harpham and bringing him to justice. “From the workers who noticed the device to the police response, the JTTF investigation, the expertise of the FBI Laboratory, and the prosecuting skill of the U.S. Attorney’s office—everything worked just as it should have.”

## Newest Army Weapon to Thwart Bombs: Paintball Guns

Source: <http://www.wired.com/dangerroom/2011/11/army-bombs-paintball/>

You're a soldier on patrol in Afghanistan.

object far away, sticking out off to the side. Is it a bomb? How should you even check? If the Army's latest research project pans out, you might just whip out your paintball gun.

On Wednesday, the Army announced that it's in the market for a paintball system that can detect the presence and type of different explosives. The system would work by loading up projectiles with materials that advertise the presence of explosives — sort of like a litmus test for bombs — and firing them at the suspected bombs. Picture



Walking down the road, you spot a strange



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paintballing, but with a target that might really kill you.

It's another foray into the field of bomb-hunting technology. Over the past few years, scientists have developed a range of weird and wonderful ways to sniff out the things that go boom, from explosives-sensitive plants to dynamite-detecting bee venom. But for maximum safety, it's always nice to figure out if that package or object is a bomb when you're not close enough to be blown apart by it.

That's standoff explosive detection, a field the Defense Department has shown great interest in as terrorists and insurgents have become better and more frequent users of improvised explosive devices. The Pentagon has put cash into a number of different approaches, using lasers and terahertz radiation to find traces of explosive material.

The paintball idea is comparatively low-tech. The Army notes that the technology to detect explosives with paints and powders is already a commercial reality. They point to Raptor Detection Technology's SAFE-T Spray, which turns orange on contact with certain explosives, as an example.

So fill up some paintballs with bomb-detecting goop and fire away, right? It's a little more complicated than that.

The challenge for the paintball system comes from distance. As you might guess, the greater distance you can put between yourself and a bomb, the better. But with distance comes visibility and accuracy problems.

The Army's looking for a system that works on targets up to 100 meters away. At that distance, it can be hard to see the tiny smear from a paintball, which usually holds about 2.5

milliliters worth of paint. Those pitching the Army need to make a system that fires a larger amount of detection material and one that spreads it out further on contact than the standard neon paintball blotch. Ultimately, it has to be visible from 100 meters without the help of binoculars.

But that's only if you can get your paintball on



target. Anyone who's cursed the gods as their quarry has run through the field unpainted despite firing a barrage of paintballs knows that many paintball guns just aren't very accurate. They often don't have rifled barrels or other ways of putting a spin on their projectiles. Rifling spins a projectile as it's fired, giving it greater accuracy over distance. The Army's aiming for a system that will be accurate up to the 100-meter distance.

Just don't put too much power behind that shot. The Army doesn't want its remote bomb detector gun to accidentally double as remote bomb *detonator*.

### Detect Hidden Threats with a Simple Wipe or Spray

Source: <http://www.raptordetectiontech.com/?q=mip-technology>



With one swipe, a Raptor Detection Technologies SAFE-T® Wipe turns orange, signaling the presence of a specific class of explosive trace residue on the handle of an airline bag.

With one stand-off application, a soldier uses SAFE-T® Spray to detect and identify trace explosives



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on a suspicious vehicle at a checkpoint. The spray immediately creates a visible color change on the door handle.

Without profiling or impact on the fan experience, a sporting event security officer watches the SAFE-T® film on the admission ticket turn dark red, instantly indicating that the holder has touched a potentially threatening substance.

Without wasting the costly and limited response capability of EOD or Bomb

Squads, a first responder is able to quickly and effectively use a SAFE-T® Wipe or Spray to conduct a threat assessment and test on an unattended package.

Within seconds, every time, on any person or object, anywhere, Raptor's SAFE-T® Detection Technologies produces visible indicators of threats to safeguard citizens, transportation systems and critical infrastructure.

## Terror Suspect Says Ammonia in His "Cool Packs" Not For Bombs

By Richard S. Ehrlich

Source: <http://www.scoop.co.nz/stories/HL1201/S00114/terror-suspect-says-ammonia-in-cool-packs-not-for-bombs.htm>

An imprisoned Lebanese-Swedish terror suspect said he stockpiled medical "cool packs" which "contained ammonia" for commercial export, and is not a Hezbollah member, after being arrested for possessing 10 gallons (38 liters) of ammonium nitrate which can be used to build bombs.

"I am 100 percent not guilty in the terror crimes



I am accused of," Hussein Atris, a dual Lebanese-Swedish citizen, told the Swedish newspaper Aftonbladet.

"This is a conspiracy. I deal only with ordinary business operations," Mr. Atris, 47, said in Swedish, describing why he repeatedly came to Thailand during the past two years while exporting items to Lebanon, Liberia and other countries from a building he rented on the outskirts of Bangkok.

"We bought goods in Asia and exported them to other countries, including Lebanon. It was

fans, photocopier paper and cool packs used to relieve pain. These bags contained ammonia," Mr. Atris said.

Ammonia nitrate can be extracted from some cool packs, which are usually plastic bags containing chemicals that maintain a cold temperature after being refrigerated, and can be used for cooling medicine, food, physical aches and other purposes.

His rented building held 4.8 tons (4,380 kilograms) of urea fertilizer, 10 gallons (38 liters) of liquid ammonium nitrate, and 400 electric table fans in cardboard boxes, police told reporters.

"Carefully cut the cold pack open with a exacto knife or razor blade," said an "anonymous" poster on a California-based, question-and-answer website, when "kuyakev" asked how to extract ammonia nitrate from a cool pack.

"The ammonium nitrate is in little pellets, that will begin to come out," the poster said in a reply which could not be independently confirmed.

Police charged Mr. Atris with illegal possession ammonium nitrate -- which requires a Thai government permit.

Ammonium nitrate, together with fertilizer and other items, can be used to build a bomb.

In the U.S., for example, ammonia nitrate was used in the 1995 Oklahoma City bombing.

"Three years ago we started doing business in Thailand. I have rented a store here for two years now," Mr. Atris said in the interview conducted on Thursday



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(January 19) inside Bangkok Remand Prison. "We have never dealt with chemical fertilizers. It must have been placed in our store room by someone, probably the Mossad," he said, referring to Israel's secret service.

No fuses, timing mechanisms or detonating charges were discovered in Mr. Atris's building. The description by Thai police of the building's contents included "enough materials to construct several truck bombs comparable to the one detonated at the Marriott Hotel in Islamabad in 2008," which killed at least 40 people, according to the Texas-based, intelligence analysis website Stratfor in its report on Thursday (January 19) titled "A Hezbollah Threat in Thailand?"

"Urea fertilizer can be used to manufacture the improvised explosive mixture urea nitrate, which was the main charge used in the 1993 World Trade Center bombing. The compound is also frequently used in improvised explosive devices in Iraq and to some extent in Afghanistan," Stratfor said.

"The largest vehicle-borne improvised explosive devices in recent history have contained about a ton of fertilizer," Stratfor reported, speculating on the potential use of the 4.8 tons (9,656 pounds or 4,380 kilograms) allegedly found in Mr. Atris's building.

"The device used in the 1993 World Trade Center bombing consisted of about 1,300 pounds (590 kilograms) of urea nitrate. Constructing and delivering bombs larger than that tends to create technical and logistical hitches. It is much more likely that such a large amount of fertilizer would be meant for multiple smaller or medium-sized devices."

In the interview, Mr. Atris said, "I am a Shia Muslim, but not part of the Hezbollah.

"However, I live in an area outside Beirut where they are strong. I also have sympathy on the left, I also voted for the Social Democrats when I lived in Sweden. Maybe it made me suspicious in Mossad's eyes. They kept an eye on me."

His current return to Thailand came after floods killed more than 800 people, inundated one-third of the country, and swept through parts of Bangkok.

"Firstly, I had to check the warehouse after the floods in November and December. And secondly, I should arrange a shipment to Liberia, that we had problems with. The cargo is now booked on a freighter," Mr. Atris said

without elaborating on its contents, schedule, route or customer.

Shipping containers on freighters are also a problem for counter-terrorist agents who fear huge containers can be packed like a gigantic car bomb, and detonated at sea or in a harbor. Mr. Atris was arrested on January 12 while departing through Bangkok's Suvarnabhumi International Airport, and led police to the rented building on January 16.

"I was just about to fly home. When I went through all the [Bangkok airport] controls and got my bag, I was X-rayed. They took me to a detention center at the airport and interrogated me.

"I only had a bag with some clothes and gadgets like fake iPhones, some USB flash drives, hard drives and memory sticks with me. I usually sell them in Lebanon. And then I was accused of being a terrorist. But I am 100 percent innocent."

On December 18, Israel reportedly told the U.S. and Thailand about the presence of at least two Hezbollah members in Bangkok.

After a three-week secret manhunt by Israeli, U.S. and Thai security forces -- and one day after Mr. Atris was arrested -- the American Embassy issued a public alert on January 13 "that foreign terrorists may be currently looking to conduct attacks against tourist areas in Bangkok in the near future."

The U.S. warning is still in effect, despite repeated efforts by Thai officials to have it cancelled amid worries that Thailand will lose money if fearful foreign tourists avoid the country.

"I feel pretty good in spite of the situation," Mr. Atris said.

"I miss contact with my family in Lebanon. It is only now here in the prison that I have been able to read some papers and get to know more details of my arrest. I have been treated well by the Thai police," he said.

"One evening I was taken out of prison, was placed in a car that drove off with me to a house somewhere. In there, I was interrogated by three men who apparently came from Mossad. I have their first names. They claimed that I lied about various things."

Mr. Atris said he moved from Lebanon to Sweden in 1989, married, and became a Swedish citizen in 1994.

After working as a "hairstylist" for 10 years in Gothenburg, the family moved back to Lebanon in 2005 where they



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have two sons, aged 15 and 12, and two daughters, 17 and 7, he said.

Mr. Atris said he visited Sweden in 2010 to register his fingerprints for his Swedish

passport which was issued in 2005 and expires in 2015.

*Richard S Ehrlich is a Bangkok-based journalist from San Francisco, California, reporting news from Asia since 1978, and recipient of Columbia University's Foreign Correspondent's Award. He is a co-author of four non-fiction books about Thailand, including "Hello My Big Big Honey!" Love Letters to Bangkok Bar Girls and Their Revealing Interviews; 60 Stories of Royal Lineage; Chronicle of Thailand: Headline News Since 1946; and King Bhumibol Adulyadej, A Life's Work: Thailand's Monarchy in Perspective.*

### Canada tests explosive detecting ticket readers

Source:<http://www.homelandsecuritynewswire.com/dr20120123-canada-tests-explosive-detecting-ticket-readers>

In a pilot program, Canadian light rail passengers in Edmonton will be scanned for

passenger's person. These two technologies will work in unison to provide threat detection



and response," explained Walt Bonneau Jr., the president and general manager of Cubic Security Systems.

"A silent alarm triggers video surveillance of the person suspected to be carrying threatening materials, and authorities such as police and transit security are immediately notified."

The specialized ticket machines scan for explosives by reading color changes on the molecularly imprinted polymer coatings on the surface of the tickets that will indicate if they have been in the presence of any

explosives as they pass through ticket turnstiles in a seamless system that avoids recreating the long lines of airport security checkpoints.

Working in conjunction with Cubic Security Systems, a California-based company, Canadian firm Mobile Detect will modify ticket machines to simultaneously process passenger tickets and scan for explosives and radiological threats both in the ticket and their body.

"Basically a passenger puts a ticket in a validator, the technology quickly scans the ticket for explosive materials, then returns the ticket to the passenger. At the same time another detector in the vendor is on the lookout for radioactive materials being carried on the

dangerous substances.

The pilot program is scheduled to be in place for a three-week trial period, after which officials will study the results before making any decisions to expand the program. "The city's perspective is that this is a great opportunity both to look at cutting-edge ways to enhance security on the Edmonton Transit System and thereby assist with security on transit systems across Canada," said Graeme McElheran, a spokesman for the City of Edmonton.

McElheran was careful to note that the pilot program will not disrupt train service or affect passengers. In addition, he emphasized that the program was not



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in response to any specific threat, but simply to test new technology.

"When the project winds up, public transit operators in Canada will have access to new data and knowledge that can help them make future decisions on how to increase the security of public transit system riders," said Danya Vidosa, a spokeswoman for Defense Research and Development Canada's Centre for Security Science, which funded the trial. "We all hope that Canada will never have to face a terrorist threat. But in the unlikely event that it does, projects like this contribute to

developing the tools and knowledge that we need to be better prepared to respond quickly and effectively," Vidosa added.

According to Bonneau, mass transit systems in North America are particularly attractive targets for terrorists as they carry more than fifteen times as many passengers than airplanes each year, yet have made little improvements in the way of security.

"The history of the past several years has shown us that public transit and commuter rail systems have been threatened as much as commercial aviation," Bonneau said.

## 55 dog teams to protect Olympics

Source: [http://www.bournelocal.co.uk/news/55\\_dog\\_teams\\_to\\_protect\\_olympics\\_1\\_3454147](http://www.bournelocal.co.uk/news/55_dog_teams_to_protect_olympics_1_3454147)

Up to 155 dogs will be on duty to sniff out bombs during the London Olympics, the Government has said.

The handlers and their animals, which are typically spaniels trained in detecting explosives, will roam the park in Stratford, east London, to keep athletes, spectators and sponsors safe over the summer spectacle.

Security minister James Brokenshire said dogs from police forces, the military and the London 2012 organising committee would all deploy to the site, which will be a high-profile terrorist target.

He added: "The daily number of explosive dog teams working across the Olympic theatre of operations will vary day to day based on operational demand and scheduling, but it is anticipated up to 55 teams will be scheduled per day working in support of the London 2012 organising committee (Locog) on venue security.

"This is in addition to the deployment of sniffer dogs from the police service and the Ministry of Defence.

"The police expect to deploy 100 explosive detection dogs on a peak day during the Games."



Answering a written Parliamentary question tabled by shadow security minister Diana Johnson, Mr Brokenshire said handlers and dogs from Locog would work up to 12 hours a day on a 20 minutes on, 20 minutes off cycle, with police sniffer dogs working eight-hour shifts.



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### Reveal Imaging's liquid explosive detector passes European test

Source: <http://www.homelandsecuritynewswire.com/srdetect20120130-reveal-imaging-s-liquid-explosive-detector-passes-european-test>

Airline passengers could soon be allowed to carry liquids on board thanks to a new explosive detector by Reveal Imaging.

On Monday the company, a subsidiary of defense giant SAIC, announced that its dual-energy CT-800 scanner passed the stringent requirements set forth by the European Civil Aviation Conference in a laboratory setting.

The scanner is capable of screening 500 to 600 bags an hour and can detect liquid explosives kept in bags, saving passengers the

roughly three times below the mandated threshold.

Following the attempted 2006 bombing of an airliner using liquid explosives, airlines have prohibited travelers from carrying liquids. The European Union Commission hopes to end this ban by 2013 and is currently looking for technology that meets its regulations and standards for explosive detection. So far Reveal Imaging is the first company to pass the most technically challenging test.



hassle of having to remove them. The test proved the CT-800 met Europe's Standard 2 requirements which require a device to detect the broadest range of liquid explosives. In addition, the device's false positive rate was

In response to the test results, Alex Preston, the general manager of SAIC's Security and Transportation Technology business unit, said, "Allowing liquids back into bags will substantially





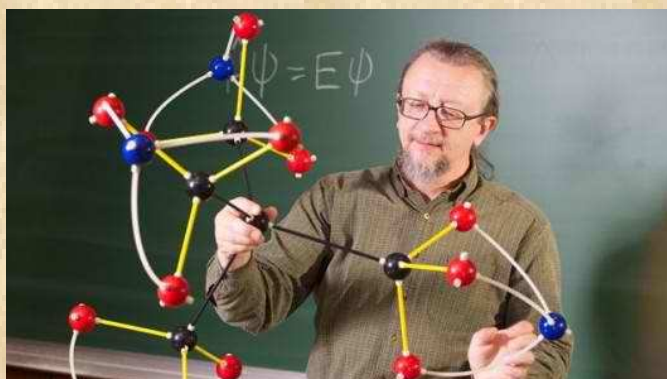
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improve operational and economic efficiency for airports throughout Europe and provide greater convenience for the traveling public. We are pleased the European Commission established the necessary standards that will

get us there. Passing the Type D test so convincingly with the proven high-throughput, low false alarm rate CT-800 platform, we believe will change the landscape of airport screening for years to come.”

### Child creates molecule that could be used for energy storage or explosives


Source: [http://www.gizmag.com/ten-year-old-creates-molecule/21357/?utm\\_source=Gizmag+Subscribers&utm\\_campaign=4686329cac-UA-2235360-4&utm\\_medium=email](http://www.gizmag.com/ten-year-old-creates-molecule/21357/?utm_source=Gizmag+Subscribers&utm_campaign=4686329cac-UA-2235360-4&utm_medium=email)




Prof. Robert Zoellner, with a model of the molecule created by ten year-old Clara Lazen

atoms as nitroglycerin, and according to Zoellner, could potentially be used to store energy or create a large explosion. A paper on his findings, listing Lazen and Boehr as co-authors, was published last month in the journal [Computational and Theoretical Chemistry](#).

I don't know about other people, but when I was a child, I was inventing things such as a musical instrument made out of a folded piece of cardboard and some rubber bands. Ten year-old Clara Lazen, however, has done something a little more noteworthy. The fifth-grader from Kansas City, Missouri, built a model of a molecule that is new to science. If the molecule itself were to actually be created, it could possibly be used for energy storage, or in explosives. Lazen built the model out of balls representing oxygen, nitrogen and carbon atoms, as part of a science exercise at Border Star Montessori School. When her creation was spied by her teacher, Kenneth Boehr, he emailed a photo of it to his friend Robert Zoellner, a chemistry professor at California's Humboldt State University. Zoellner in turn checked the Chemical Abstracts online database, and determined that Lazen's model was unique - although a previously-archived molecular model *did* incorporate the same formula as Clara's, its atoms were arranged differently. Dubbed tetranitrooxycarbon, Clara's molecule contains the same combination of



Computational and Theoretical Chemistry  
Volume 979, 1 January 2012, Pages 33–37



### A computational study of novel nitratocarbon, nitrocarbonyl, and nitrate compounds and their potential as high energy materials

Robert W. Zoellner<sup>a</sup>, Clara L. Lazen<sup>b</sup>, Kenneth M. Boehr<sup>b</sup>

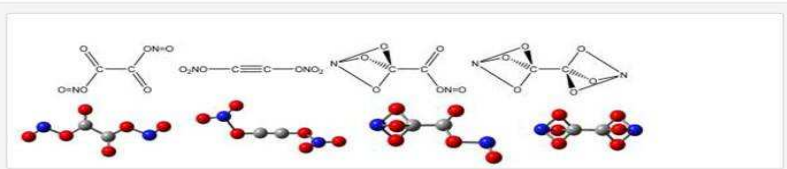
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Received 1 June 2011. Revised 22 September 2011. Accepted 12 October 2011. Available online 21 October 2011.

#### Abstract

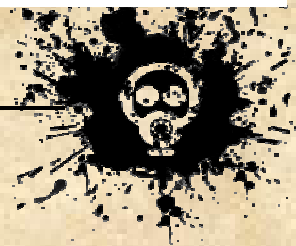
The Hartree–Fock RHF/6-31G<sup>+</sup> and density functional B3LYP/6-31G(d) methods were used to determine the structures and properties of the isomers of the first three members of the series C<sub>n</sub>(CO<sub>3</sub>N)<sub>2n+2</sub> (n = 0, 1, 2). The first member of the series, C<sub>0</sub>(CO<sub>3</sub>N)<sub>2</sub>, has six possible isomers, di(nitrate-O)acetylene, *cis*- and *trans*-di(nitrate-O,O)ethylene, the novel di(nitrate-O,O,O)ethane or bis(nitratocarbon), di(nitroso)oxalate and the mixed isomer nitroso(nitrate-O,O,O)acetate. The most stable of these isomers, both at the Hartree–Fock or density functional levels of theory, is di(nitroso)oxalate, followed by nitroso(nitrate-O,O,O)acetate, and bis(nitratocarbon). The electronic energy of the mixed isomer closely approximates the mean of the energies of di(nitroso)oxalate and bis(nitratocarbon). Neither the *cis*- nor the *trans*-di(nitrate-O,O)ethylene could be optimized to a stable minimum on the Hartree–Fock or density functional potential energy surfaces, and the di(nitrate-O)acetylene isomer was a stable minimum with the Hartree–Fock method but not at the density functional level of theory. Of the two higher members of the series investigated, C<sub>n</sub>(CO<sub>3</sub>N)<sub>2n+2</sub> (n = 1, 2), each has two isomers: the nitrocarbonyl-substituted systems — analogous to di(nitroso)oxalate — and the nitratocarbon-substituted systems (neglecting mixed isomers containing both nitrocarbonyl and nitratocarbon moieties). In these compounds, while the nitrocarbonyl derivatives were found to be significantly more stable thermodynamically than the nitratocarbon derivatives, both systems were stable minima on both potential energy surfaces and may be of interest as high-energy materials.

#### Graphical abstract



#### Highlights

- C<sub>n</sub>(CO<sub>3</sub>N)<sub>2n+2</sub> systems investigated with Hartree–Fock and density functional methods.
- Nitrocarbonyl systems were most stable; nitratocarbon systems were least stable.
- Molecules may be of interest as potential high-energy materials.



**New version of Molotov cocktail used in Athens' riots**

During the recent Athens' riots (Feb 12, 2012) a new Molotov cocktail used against police forces. The "Cobra Molotov" is composed of a plastic bottle (500 or 750ml) filled with liquid ammonia, petrol and *expanded polystyrene foam* (known as thermocole) in small pieces. Around the bottle fireworks with fuse are tied while metallic objects – i.e. nails or screws are placed inside the bottle. The bomb can explode either in the air or on a hard surface (road, human). Metallic objects are released as secondary bullets to a distance of 30m while the content of the bottle is extremely sticky and cause severe burns.



**CBRNE-Terrorism Newsletter – Feb 2012****Iranian Terrorist in Thailand Blows Off His Own Legs in Attack**

Source: [http://www.theblaze.com/stories/iranian-terrorist-in-thailand-blows-off-his-own-legs-in-attack-graphic-images/?utm\\_source=twitterfeed&utm\\_medium=twitter](http://www.theblaze.com/stories/iranian-terrorist-in-thailand-blows-off-his-own-legs-in-attack-graphic-images/?utm_source=twitterfeed&utm_medium=twitter)

An Iranian man carrying grenades blew off his own legs and wounded four civilians Tuesday (Feb 14) after an earlier blast shook his house in Bangkok, Thai authorities said. The explosions came a day after an Israeli diplomatic car was bombed in India – an attack Israel blamed on Iran.

Authorities say it's unclear whether the Bangkok explosions were linked to the New Delhi attack, but Israeli Foreign Ministry spokesman Yigal Palmor said, "we can't rule out any possibility."



A Thai Explosive Ordnance Disposal (EOD) official examines a backpack that was left on the bomb site by a suspect bomber in Bangkok, Thailand Tuesday, Feb. 14, 2012. (AP)

Thai security forces found more explosives in a house where the Iranian man was staying in Bangkok, but the possible targets were not known, Police Gen. Pansiri Prapawat said.

A passport found at the scene of one blast indicated the assailant was Saeid Moradi from Iran, Pansiri said. Authorities in Tehran could not immediately be reached for comment.



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A suspected bomber lies injured at an explosion site in Bangkok, Thailand Tuesday, Feb. 14, 2012. (AP)

Tuesday's violence began in the afternoon when a stash of explosives apparently detonated by accident in Moradi's house, blowing off part of the roof. Police said two foreigners quickly left the residence, followed by a wounded Moradi.

"He tried to wave down a taxi, but he was covered in blood, and the driver refused to take him," Pansiri



said. He then threw an explosive at the taxi and began running.

Police who had been called to the area then tried to apprehend Moradi, who hurled a grenade to defend himself. "But somehow it bounced back" and blew off his legs, Pansiri said.



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Photos of the wounded Iranian showed him covered in dark soot on a sidewalk strewn with broken glass. He lay in front of a Thai primary and secondary school. No students were reported wounded. A dark satchel nearby was investigated by a bomb disposal unit. Pansiri said police found Iranian currency, US dollars and Thai money in the bag.

Three Thai men and one Thai woman were brought to Kluaynamthai Hospital for treatment of injuries, said Suwinai Busarakamwong, a doctor there.

Another Iranian was detained Tuesday night at Bangkok's international airport as he attempted to leave for neighboring Malaysia, said police commander Winai Thongsong. Authorities were interrogating the man, but it was not yet known whether he was involved in Tuesday's blasts.

Last month, a Lebanese-Swedish man with alleged links to pro-Iranian Hezbollah militants was detained



by Thai police. He led authorities to a warehouse filled with more than 8,800 pounds (4,000 kilograms) of urea fertilizer and several gallons of liquid ammonium nitrate.

Israel and the United States at the time warned their citizens to be alert in the capital, but Thai authorities said Thailand appeared to have been a staging ground but not the target of any attack.

Pansiri said that "so far, we haven't found any links between these two cases."

Immigration police are trying to trace Moradi's movements, but initial reports indicated he flew into Thailand from Seoul, South Korea on Feb. 8, Pansiri said. He landed at the southern Thai resort town of Phuket, then stayed in a hotel in Chonburi, a couple hours drive southeast of Bangkok, for several nights.

Bangkok's blasts came one day after bombs targeted Israeli diplomats in India and Georgia. The attack in India wounded four people, while the device found in Georgia did not explode. Iran has denied it was responsible.

In Jerusalem, Israeli foreign ministry spokesman Yigal Palmor said there was not yet any sign that any targets in Bangkok were Israeli or Jewish.

Israeli police have increased the state of alert in the country, emphasizing public places, foreign embassies and offices, as well as Ben-Gurion International Airport.

Thailand has rarely been a target for foreign terrorists, although a domestic Muslim insurgency in the country's south has involved bombings of civilian targets.

Associated Press writers Jocelyn Gecker in Bangkok and Amy Teibel in Jerusalem contributed to this report.



## Terror Changes Its Spots

By Vivek Chadha (IDSA)

Source: [http://www.idsa.in/idsacomments/TerrorChangesItsSpots\\_vchadha\\_140212](http://www.idsa.in/idsacomments/TerrorChangesItsSpots_vchadha_140212)

The terror strike targeting an Israeli diplomat in New Delhi in February 13 2012 has suddenly raised the concerns to higher levels both for the police and intelligence agencies - the primary instruments of defence against terrorism in any country. This is not the first strike against a soft target. July 13, 2011 witnessed bomb blasts in Mumbai's Dadar, Opera House and Zaveri Bazaar area, leaving 26 dead and 131 injured. On September 7, 2011, the Delhi High Court was shaken by a briefcase bomb, which killed 12 people and injured 76. However, the choice of Israel's diplomatic corps as the target of the strike raises both the pitch and the implications.

The previous terror strikes in India have followed a familiar pattern. Most were seen as attacks against the Indian State, even though some specifically targeted foreign nationals as witnessed during the 26/11 Mumbai attack and German bakery blast in Pune. The possible aim of these terror strikes included challenging the secular character of the State in pursuance of an ideology, give a local character to terrorism and create a religious divide through an expectant backlash, thereby enlarging the ensuing conflict. The selection of seemingly random targets also had certain common characteristics. The strikes targeted soft civilian groups. Invariably, the blasts took place in major cities. Even in these cities, it was timed to focus on crowded areas. The blasts were aimed at creating fear psychosis, partly due to the gory scenes at the sites of attack and even more from the 24 hour shrill and relentless beaming of real and at times imagined threats.

The shift in the nature and pattern of the 13/02 strike is significant for a number of reasons. *First*, the strike appears to have been planned simultaneously with another one in Tbilisi, Georgia, yet again against an Israeli diplomat. The coordinated action and commonality of target has raised the possibility of Iran or

Hezbollah being the alleged perpetrator, a linkage alluded to by Israeli Prime Minister who indicated that the incidents were "traceable to Iran". This virtually makes India a proxy battleground for terrorists willing to operate beyond their shores.

*Second*, while the terrorists chose a high profile target, they did not select a populated area, as done in the past like the chaos of a marketplace, judicial court or eatery. The choice is clearly indicative of a selective, demonstrative and punitive strike against a defined adversary.

*Third*, the choice of material, though still unclear, raises a couple of options. The use of Nitroglycerine as an ingredient was discovered by Alfred Nobel as early as 1847 and it was later perfected to make dynamite sticks. However, its instability remained a concern and subsequently led to improved explosive materials like TNT and RDX. Despite the availability of these latter, the liquid form of Nitroglycerine and the relative ease of smuggling it led to its use by terrorists like Ramzi Yousef, who smuggled it on-board a Philippine Airline flight on December 11, 1994. That is the first option. The other option is an RDX based IED, an explosive compound used in limpet mines like Maindeka, considered amongst the most effective and deadly in the world.

*Fourth*, going by the Israeli assertion, if the attacks in India have indeed been planned and executed by Iran, then the choice of country selected for the strike is disturbing. It indicates Iran's decision to retaliate against suspected Israeli targeting of its nuclear scientists, even at the cost of executing it in a country that has been sympathetic to its international isolation. This, as the early debate indicates, has already forced India to answer awkward questions from US lawmakers and powerful Jewish interest groups, who see India supporting Iran despite obvious terror linkages.



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*Fifth*, the strike is probably the first, where a bomb has not been planted on a static, nondescript target, but instead on a temporarily halted vehicle, by a rider on a motorcycle, who reportedly followed the car, planted the device and drove off in a matter of seconds. The characteristics of the mine resemble those of a Limpet Mine, which, classically magnetic in nature, was used against hulls of ships below the water line (the name limpet is derived from

used against a moving vehicle, it is also the first instance of the use of a magnetic IED. *Two*, the nature of the operation indicates a level of professionalism, which has not been identified with the Indian Mujahideen (IM) or Lashkar-e-Taiba (LeT) in the past, raising concerns about their direct or indirect involvement if any. *Three*, the strike could have been engineered or at least coordinated by a foreign expert, with logistic support from groups



marine mollusks which are invertebrates with a shallow cone and a large muscular foot). The name of the mine is attributed to Major Millis Rowland Jeffries and Stuart Macrae, who developed it in 1939 and subsequently used it during the Second World War. It has not only been used against ships by militaries, but also by terrorists, who have employed it as improvised explosive devices (IEDs) against ships and motor vehicles, in ways similar to the strike in New Delhi. Interestingly, most initial devices employed chemical time delays for initiation to enable a quick getaway for the perpetrator, historically a very useful function, as was witnessed against the Japanese in the Singapore harbour, in September 1943. More recent ordnance devices, like Maindeka, have also used mechanical or electronic timers. The use of a limpet IED in the Indian context raises serious concerns. *One*, besides being



like IM or LeT in India, which exposes the weakness in detecting the entry of suspects into the country and the planning, reconnaissance and execution of terrorist act. On the other hand, if the strike was outsourced, then it highlights concerns about the nature of tactical expertise far beyond the existing capability of local groups and, in the process, raises their threshold level to undertake similar strikes in future as well.

*Sixth*, unlike in Georgia, the attack in India could not be detected and averted. It also took place a few hundred metres away from the Prime Minister's residence. Despite the sensitivity of the area concerned, the close circuit television footage being used to analyse the incident is being sourced from a private residence. This raises concerns about defence against similar attacks in future and about the procedures and systems in place to guard against such attacks.



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The success of the 13/2 terror strike may not be measured by its perpetrators from the number of casualties inflicted, but it will be seen in their ability to strike deep into the heart of the largest democracy in a manner, which was as yet untested. It may also become a successful test run for similar attacks in the

future, which could well be more ingenious and sophisticated in their concept and execution. The strike also exposes India to the possibility of a more potent and professional group, which may have already raised the capability levels of indigenous terror cells and created a threat which is both real and potent.



The Institute for Defence Studies and Analyses (IDSA) is a non-partisan, autonomous body dedicated to objective research and policy relevant studies on all aspects of defence and security. Its mission is to promote national and international security through the generation and dissemination of knowledge on defence and security-related issues. IDSA has been consistently ranked over the last few years as one of the top think tanks in Asia.

### Magnet bomb poses new worry for security agencies

Source: <http://timesofindia.indiatimes.com/india/Magnet-bomb-spells-fresh-worry-for-security-agencies/articleshow/11891713.cms>

The magnet bomb attack on a senior Israeli diplomat's wife in the Capital on Monday marks a new challenge for the security establishment already struggling to cope with the formidable task of countering terrorism.

This was the first instance where a magnet

attack on Tal Yehoshua Korene, wife of Israel's defence attache, diverges from the pattern of terror India has suffered so far as it targeted an individual. Terror groups arrayed against India have lately been focused on attacks aimed at maximizing casualties, with bombs set off in crowded



bomb, called limpet bombs because of the way they can be stuck to the vehicles of unsuspecting targets, was used in the country, and spells a new worry. The

places.

The use of a new weapon and the targeting of individuals can present security agencies with fresh





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complexities in a scenario where only those having Z-plus and Z security cover are buffered against use of magnet bombs. Usually, Z-plus and Z category protectees are tailed by security vehicles which would deter an attack like the one on Monday when a motorcyclist stuck an explosive device to the Israeli embassy vehicle when it had stopped at a traffic intersection.

"We can only hope that this does not inspire others. Or else, we will be saddled with a gigantic task," a senior intelligence official said, adding that the security drill may have to be reviewed in light of the attack that has widely been seen as a retaliatory hit by Iran against Israeli targets as part of their confrontation over Tehran's suspected pursuit of nuclear weapons.

"You can imagine what we will be required to do if there are a couple of copycat attacks. The sheer task of providing protectees with additional cover is going to be a huge strain on our resources," said the senior official, who spoke on the condition of anonymity.

The attack has also raised questions on the current scheme of registering diplomatic vehicles under which each country is assigned a specific number. The scheme makes embassy cars as well as individual diplomats using them easily identifiable. Although the arrangement, flowing from international convention on diplomatic ties, is meant to help diplomats carry out their assignment without hassles, the arrangement, as it now transpires, can render them vulnerable.

On Tuesday, security of both the Israeli and American embassies and their staffers was ramped up as the blasts in Bangkok underlined the threat of tensions over Iran's nuclear programme triggering a new wave of covert strikes in foreign capitals. The estimate is that there may be a step up in attacks on Israeli targets as part of what is suspected to be a determined counter-offensive to deter those seeking to thwart Iran from acquiring nuclear weaponry.

However, home minister P Chidambaram refrained from spelling out the suspected source of the attack on the Israeli woman whose condition remained critical. Speaking to reporters, he confirmed that Monday's strike was a terror attack. Talking to reporters, he also said the attacker was well-trained, but refused to point fingers at anyone.

Home secretary R K Singh also said, in response to a question on whether Iran was behind the blast, that it was too premature to name anyone.

However, sources in the home ministry said that although the bomber showed skill of a degree that is not associated with local modules, the attack could not have been executed without significant local support. To back up the assumption, they pointed to his familiarity with the terrain.

Significantly, the attack has again exposed a chink in the security cover, with footage of police CCTVs yielding virtually no clue to the bomber's identity except that he was riding a red motorcycle. Delhi Police investigators have now sought CCTV footage from Canadian and Israeli embassies.

The probe has already taken an international dimension, with investigators approaching their counterparts in Georgia on the similar attack on an Israeli target in Tbilisi on Monday. The attackers in the Georgian capital have been nabbed and can, along with the bomber who was arrested in Bangkok on Monday, help investigators determine whether the attacks flowed from a plan to retaliate against the targeted assassinations of Iranian nuclear scientists.

Israel has been eager to help with investigation: an offer which has already been accepted. Sources in the home ministry confirmed that the two countries, whose security agencies have a good rapport, will share information as the investigation progresses.



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### The bombs hidden in \$27 portable radios: Iranians using well-disguised explosives against Israeli targets around the world

Source: <http://www.dailymail.co.uk/news/article-2104609/Iranian-hit-squad-targeting-Israelis-hid-bombs-27-portable-radios.html#ixzz1n81FhO8v>

The bombers who allegedly planned to attack Israeli targets in Bangkok, Thailand, were armed with professional-grade explosives hidden in \$27 portable radios.

Authorities discovered an Iranian hit squad had at least five of these bombs with them when their plot in Thailand blew up in their faces last week.

A photo shows one of the devices that was recovered from an Iranian safe house. It was packed with ball bearings for maximum damage and had six magnets on the side, meaning it could be stuck to the underside of a car.

The inexpensive Chinese-made radio was also rigged by the Iranians with a standard American hand grenade pin and detonator that, when pulled, would have set the device off in about four and a half seconds, ABC News reported.



Clever cover: Iranian operatives are hiding explosives in the guts of cheap Chinese-made radios like these, according to reports



© AFP/GETTY IMAGES



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**Botched:** Saeid Moradi blew off his own legs when one of the bombs he allegedly threw bounced back to him

It's unclear how the bombs were brought into the country -- whether they were smuggled in covertly or taken in diplomatic satchels.

The plot against the Israelis was foiled a week ago when some of the explosives accidentally detonated at a safe house serving as a base of operations for Saeid Moradi and at least two other Iranian colleagues.

Moradi, bloody, allegedly fled the house with two bombs and tried to hail a taxi to escape the scene. When the cab driver wouldn't stop, he threw one bomb at the car, injuring four people on the street, according to Thai authorities.

He threw a second bomb at police when they arrived, but it bounced off a car and exploded near him -- blowing off his own legs.

Moradi and two other Iranian nationals are in police custody and charged in connection with the botched attack. Officials have named three more, two men and a woman, who they are searching for.

ABC News reports that American and Israeli explosives experts say the bombs are strikingly similar to those used in two other attacks on Israeli targets outside the Middle East.



**Fleeing:** These surveillance photos show the three alleged bombers as they escaped their safehouse. Saeid Moradi, center, fled carrying two of the radio bombs

A bomb was found stuck to the underside of an Israeli diplomat's car in Tbilisi, Georgia. Within hours, an explosive attached to the car carrying an Israeli diplomat's wife blew up in New Dehli, India. The woman, her driver and two bystanders were injured in the attack.

The bombings are widely believed to be retaliation for explosions, believed to be the work of Israelis that killed at least five of Iran's top nuclear scientists.

All of this comes at a time of mounting military tension between Iran and Israel. British and US officials have urged Israel not to unilaterally strike the Islamist republic.

However, officials are beginning to worry that Israel might send warplanes to bomb Iranian nuclear sites before the country can complete a reactor -- or worse, an atomic bomb.

Israeli warplanes are suspected of preemptively wiping out nuclear sites in both Iraq and Syria.

### Rats trained to detect explosives

Source: <http://www.homelandsecuritynewswire.com/srdetect20120227-rats-trained-to-detect-explosives>



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Bomb sniffing dogs could be a thing of the past thanks to explosives seeking rats. Unlike dogs, when rats detect sensitive explosives like land mines they rarely set them off as they weigh less than pound.

CNN reports that the Colombian National Police is currently training lab rats to detect hidden explosives. In a demonstration, one rat successfully found an explosive device buried underground in less than a minute.

Luisa Fernanda Mendez Pardo, the head of the explosive detecting rat training program and a specialist in canine explosives training, said a rat's sense of smell is just as good as a dog's. So far Pardo said the experiment has far exceeded her initial expectations. "As a researcher," Pardo told CNN, "I can tell you that this project has exceeded the expectations we had at the beginning. We have been able to condition the rats to follow simple verbal commands. We have also trained them to not be afraid of their human handlers."

The rats have been trained to detect seven different types of explosives including ammonium nitrate, gunpowder, and TNT.

Pardo added that compared to dogs, rats are far more cost-effective. "With the money it takes to feed a dog per day, you can feed seven rats for seven days," she said.

Second Lieutenant Edgar Ramirez of the



Colombian National Police could think of little negative aspects of using rats other than their relatively short life span. "These animals live only three to four years, which is a relatively short period of time from a human perspective. On the other hand, they're very prolific. They reproduce themselves exponentially in a very short time," Ramirez said.

Colombia is not the only country to use rats to detect explosives. Mozambique has already trained rats to help authorities detect land mines.

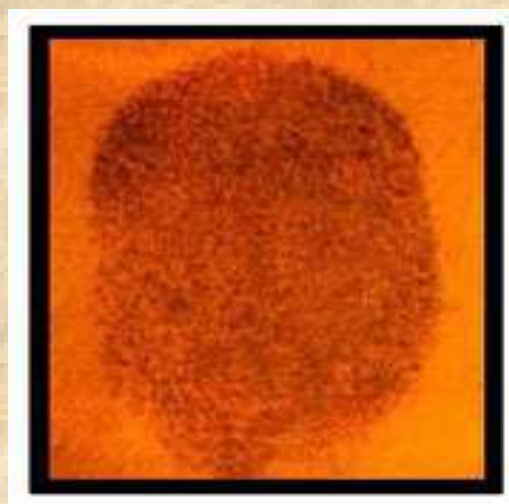
### Simple sensitive TNT detection

Source: <http://www.rsc.org/chemistryworld/News/2012/February/tnt-explosives-detection.asp>

Indian scientists have created a gel that gives a fluorescence response when exposed to particles of explosive trinitrotoluene - better known as TNT. By adding the gel to filter paper, they have shown how to make a cheap system for quick and easy TNT detection that is nonetheless highly sensitive.

The explosive is still widely used in devices such as landmines, and it contaminates water and soil, leaving behind a long legacy.

Sniffer dogs and ion mobility spectroscopy are the most widely used TNT detection methods, but both can only be used in certain circumstances and the latter requires quite a bit of kit. Chemical 'noses' have been developed, including ones that use fluorescent techniques. But these are



technologically sophisticated - fine for the US military, say, but less good for use in poorer areas or by untrained personnel.



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Therefore, Ayyappanpillai Ajayaghosh and his team at the National Institute for Interdisciplinary Science and Technology in Trivandrum decided to investigate whether fluorescent gels could be used to detect TNT. They used OPVPF, a perfluoroarene based gelator known to form arene-perfluoroarene interactions in a brick wall arrangement. The team suspected that such an organisation might result in fluorescence quenching by the electron deficient aromatic TNT molecules.

A solution of OPVPF gave only a weak response to TNT and so the team made a gel using a solution of OPVPF, which fluoresced yellow. In addition, the researchers coated the gel on filter paper, changing the emission to an orange-red colour. Both the gel and the coated paper, however, showed a fast quenching of the fluorescence when exposed to TNT (within five seconds of exposure).

Different nitro-aromatics do also give a quenching effect, but this shouldn't be a problem say the researchers because such compounds are often bi-products of TNT manufacture and present with TNT.

'This work is an excellent demonstration of the idea that new and useful properties can emerge from a self-assembled material that are unavailable from the individual components,' says Anne McNeil who works on stimuli responsive gels at the University of Michigan, US. 'The "test strip" concept, wherein a piece of filter paper was coated with the gel aggregates and dried, was brilliant because it enabled surprisingly low detection limits while retaining fast detection speed due to facile vapour diffusion'.

The test strip can be used to detect concentrations of TNT at the attogram level, and can work with solid residue, vapour or solutions of TNT, and so could be used for environmental monitoring as well as security applications.



## “Anonymous” hackers target US security think tank

By Cassandra Vinograd

Source: <http://www.businessweek.com/ap/financialnews/D9RRNNP80.htm>

Hackers with the loose-knit movement "Anonymous" claimed on Sunday to have stolen a raft of emails and credit card data from U.S.-based security think tank Stratfor, promising it was just the start of a weeklong, Christmas-inspired assault on a long list of targets.

Anonymous boasted of stealing Stratfor's confidential client list and mining it for more than 4,000 credit card numbers, passwords and addresses. The real threat appeared posed to individual employees of government agencies and private companies, and one alleged hacker said the goal was to use the credit data to pilfer a million dollars and give it away as Christmas donations.

Images posted claimed to show receipts, and victims confirmed to The Associated Press unauthorized credit card transactions linked to their accounts.

"Not as many as you expected? Worry not, fellow pirates and robin hoods. These are just the "A"s," read a message posted online that encouraged readers to download a file of the hacked information.

The flood of leaked data started when a Twitter account tied to Anonymous posted a link to what they said was Stratfor's tightly-guarded, confidential client list. Among those on the list: The U.S. Army, the U.S. Air Force and the Miami Police Department.

The rest of the list, which the hacking movement said was a small slice of its 200 gigabytes worth of plunder, included banks, law enforcement agencies, defense contractors and technology firms such as Apple and Microsoft.

"Not so private and secret anymore?" the group taunted in a message on the microblogging site, warning of more mayhem to come.

Austin, Texas-based Stratfor provides political, economic and military analysis to help clients reduce risk, according to a description on its YouTube page. It charges subscribers for its reports and analysis, delivered through the web, emails and videos.

Lt. Col. John Dorrian, public affairs officer for the Air Force, said that "for obvious reasons" the Air Force doesn't discuss specific vulnerabilities, threats or responses to them.

"The Air Force will continue to monitor the situation and, as always, take appropriate action as necessary to protect Air Force networks and information," he said in an email. Miami Police Department spokesman Sgt. Freddie Cruz Jr. said that he could not confirm



that the agency was a client of Stratfor, and he said he had not received any information about any security breach involving the police department.

Anonymous said it was able to get the credit details in part because Stratfor didn't bother encrypting them -- an easy-to-avoid blunder which, if true, would be a major embarrassment for any security-related company.

Hours after publishing what it claimed was Stratfor's client list, Anonymous tweeted a link to encrypted files online. It said the files contained 4,000 credit cards, passwords and home addresses belonging to individuals on the think tank's private client list.

It also linked to images online that it suggested were receipts for charitable donations made by the group manipulating the credit card data it stole.

"Thank you! Defense Intelligence Agency," read the text above one image that appeared to show a transaction summary indicating that an agency employee's information was used to donate \$250 to a non-profit.

One receipt -- to the American Red Cross -- had Allen Barr's name on it.



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Barr, of Austin, Texas, recently retired from the Texas Department of Banking and said he discovered last Friday that a total of \$700 had been spent from his account. Barr, who has spent more than a decade dealing with cybercrime at banks, said five transactions were made in total.

"It was all charities, the Red Cross, CARE, Save the Children. So when the credit card company called my wife she wasn't sure whether I was just donating," said Barr, who wasn't aware until a reporter with the AP called that his information had been compromised when Stratfor's computers were hacked.

"It made me feel terrible. It made my wife feel terrible. We had to close the account."

Stratfor said in an email to members that it had suspended its servers and email after learning that its website had been hacked.

"We have reason to believe that the names of our corporate subscribers have been posted on other web sites," said the email, passed on to The Associated Press by subscribers. "We are diligently investigating the extent to which subscriber information may have been obtained."

The email, signed by Stratfor Chief Executive George Friedman, said the company is "working closely with law enforcement to identify who is behind the breach."

"Stratfor's relationship with its members and, in particular, the confidentiality of their subscriber information, are very important to Stratfor and me," Friedman wrote.

Repeated calls to Stratfor went unanswered Sunday and an answering machine thanked callers for contacting the "No. 1 source for

global intelligence." Stratfor's website was down, with a banner saying "site is currently undergoing maintenance."

Wishing everyone a "Merry LulzXMas" -- a nod to its spinoff hacking group Lulz Security -- Anonymous also posted a link on Twitter to a site containing the email, phone number and credit number of a U.S. Homeland Security employee.

The employee, Cody Sultenfuss, said he had no warning before his details were posted.

"They took money I did not have," he told The Associated Press in a series of emails, which did not specify the amount taken. "I think why me? I am not rich."

One member of the hacking group, who uses the handle AnonymousAbu on Twitter, claimed that more than 90,000 credit cards from law enforcement, the intelligence community and journalists -- "corporate/exec accounts of people like Fox" news -- had been hacked and used to "steal a million dollars" and make donations.

It was impossible to verify where credit card details were used. Fox News was not on the excerpted list of Stratfor members posted online, but other media organizations including MSNBC and Al Jazeera English appeared in the file.

Anonymous warned it has "enough targets lined up to extend the fun fun fun of LulzXmas through the entire next week."

The group has previously claimed responsibility for attacks on companies such as Visa, MasterCard and PayPal, as well as others in the music industry and the Church of Scientology.

*Associated Press writer Jennifer Kway in Miami, Ramit Plushnick-Masti in Houston, Texas and Daniel Wagner in Washington, D.C. contributed to this report.*

## 2012 is an Olympic year: get prepared for Olympic Cybercrime too

Source: [http://www.securitypark.co.uk/security\\_article267083.html](http://www.securitypark.co.uk/security_article267083.html)

With 2012 an Olympic year and athletes around the world limbering up to compete, cyber criminals too are preparing for the next twelve months warns Trusteer. Using the intelligence Trusteer's gathered of the criminals mind, and the weapons at their disposal, this leading provider of cybercrime prevention solutions today gave

its guidance of how it expects threats will morph during 2012.

Amit Klein, CTO for Trusteer explains, "Cybercriminals are successfully defeating security controls across the globe and in all industries. They have moved from the shotgun approach to



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a marksman's methodology, becoming focused on the institutions they target. More organised than ever before, tomorrow's cybercriminal studies their prey and learns their security controls so then can bypass them and commit fraud. While the Olympic's may be a distraction, it's vitally important that security professionals don't take their eye off the prize – to play these fraudsters at their own game, and win gold."

### Trusteer has made five leading predictions for 2012:

- **Prediction 1 – 2012 will see new multipurpose multi functional malware:**

Trusteer predicts malware, originally designed for one purpose, will evolve to pose a new threat with a malicious undertone. Non-financial viruses will morph to become financial malware and be used to commit online banking fraud. Conversely, existing financial malware, will adopt features introduced in non-financial APT attacks. Over the next twelve months perimeters will face an onslaught from various sources, viruses going financial, APT style technologies in ZeuS code derivatives manipulated by new coders and in other commercially available malware kits (e.g. Spyeye).

- **Prediction 2 – We're on the verge of malware globalisation**

Next year cybercriminals will realise their dreams of global domination as Trusteer expects to see widespread resale and repackaging of malware. This means code, originally designed specifically to target one geographical location, will be adopted and translated to target other regions or even countries. The end result will see terms such as 'regional malware' and even 'malware free countries' cease to exist as everyone, regardless of where

they are, comes into the sights of the criminal fraternity.

- **Prediction 3 – Cyber criminals will up their game and improve evasion techniques**

Ultimately a cyber criminal's focus is on infecting the user's PC and to remain undetected for as long as possible. It makes sense, therefore, that they will continue to improve their evasion techniques to 'hide' the rogue program or mimic that of another program. But be warned, where evasion techniques are unsuccessful, fraudsters will resort to developing malware designed to attack and destroy existing protection, with the premise that the organization, and its users, may not notice they're vulnerable to attack.

- **Prediction 4 - Personal information, disclosed on social networks, will be used in social engineering attacks against the enterprise**

Fraudsters, all too aware of the valuable intelligence freely available social networks, are starting to mine these data sources capturing the personal details needed to successfully complete social engineering attacks. Trusteer predicts this will manifest itself over the coming year as an enterprise issue. As a crude example, if an enterprise uses a 'secret question' for password retrieval, it's feasible that an individual's answers could be researched via the net, the password reset and the legitimate account used to compromise the organisation.

- **Prediction 5 – the move to SaaS allowing malware attacks on enterprise applications**

Many organisations, in an effort to reduce cost of enterprise application have moved to SaaS. However, as part of this process, many have outsourced services to external websites without first





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carefully considering the security risks it presents. While the damage that can be done has not yet been evident, Trusteer's prediction is that it will become apparent over the next 12 months. Its belief is that many organisations will spend 2012 fighting flames, backtracking and perhaps having to withdraw these services.

### Key principles in fighting 2012 cyber crime

Searching for security solutions that can turn the table on cyber criminals and maintain the upper hand requires a closer look at the shared attack vectors of successful cyber crime schemes.

- First, malware residing on the machine abuses the trust a user places in the browser and the rendered site, through which fraudsters can initiate an endless

number of social engineering attack variations.

- Second, malware that has free access to application and system resources will eventually leverage technology and social engineering to penetrate any security control.

Amit concludes, "Cybercrime will eventually prevail if malware is allowed to infect machines and remain undetected and uninterrupted. Over time cybercrime prevention can simply not coexist with malware infected machines. Consequently, effective sustainable security requires cyber crime intelligence that identifies new malware attack and infection behaviours, complemented by the ability of the security control (technology and process) to quickly adapt to and defeat new threats. Forewarned is forearmed, and you've been warned."

### First EU-Report on Maritime Cyber Security

#### Analysis highlights essential key insights, as well as existing initiatives

Source:<http://www.darkreading.com/security/news/232300837/first-eu-report-on-maritime-cyber-security.html>

BRUSSELS and HERAKLION, Greece, December 20, 2011 /PRNewswire/ --

ENISA has published the first EU report [<http://www.enisa.europa.eu/act/res/other-areas/cyber-security-aspects-in-the-maritime-sector>] ever on cyber security challenges in the Maritime Sector. This principal analysis highlights essential key insights, as well as existing initiatives, as a baseline for cyber security. Finally, high-level recommendations are given for addressing these risks.

Cyber threats are a growing menace, spreading to all industry sectors that rely on ICT systems. Recent deliberate disruptions of critical automation systems, such as Stuxnet [<http://www.enisa.europa.eu/media/press-releases/stuxnet-analysis>], prove that cyber-attacks have a significant impact on critical infrastructures. Disruption of these ICT capabilities may have disastrous consequences for EU Member States' governments and social well-being. The need to ensure ICT robustness against cyber-attacks

is thus a key challenge at national and pan-European level.

Some key findings of the report [<http://www.enisa.europa.eu/act/res/other-areas/cyber-security-aspects-in-the-maritime-sector>];

- Maritime cyber security awareness is currently low, to non-existent. Member States are thus highly recommended to undertake targeted maritime sector awareness raising campaigns and cyber security training of shipping companies, port authorities, national cyber security offices, etc. - Due to the high ICT complexity, it is a major challenge to ensure adequate maritime cyber security. A common strategy, and the establishing of good practices for technology development and implementation of ICT systems would therefore ensure "security by design" for all critical maritime ICT components. - As current maritime



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regulations and policies consider only physical aspects of security and safety, policy makers should add cyber security aspects to them. - ENISA strongly recommends a holistic, risk-based approach; assessment of maritime-specific cyber risks, as well as identification of all critical assets within this sector. - As maritime governance is fragmented between different levels (i.e. international, European, national), the International Maritime Organisation together with the EU Commission and the Member States should align international and EU policies in this sector. - Better information exchange and statistics on cyber security can help insurers to improve their actuarial models, reduce own risks, and thus offer better contractual insurance conditions for the

maritime sector. Information exchange platforms, such as CPNI.NL, should be also considered and by Member States to better communications.

The Executive Director of ENISA, Professor Udo Helmbrecht comments;

"This report positions maritime cyber security as a logical and crucial next step in the global protection efforts of ICT infrastructure."

Maritime figures

- 90% of the EU's external trade and more than 40% of the internal trade take place via maritime routes.

Consequently, securing the maritime sector's critical infrastructure and the movement of vital goods, e.g. food and health supplies is a priority area for Europe.

**NOTE:** Read/download the full report at the Newsletter's website – "CBRNE-CT Papers" section

## Will Kim Jong Un be for cyberwarfare what his dad was for nukes?

Source: <http://www.csoonline.com/article/696930/will-kim-jong-un-be-for-cyberwarfare-what-his-dad-was-for-nukes->

The death of North Korean dictator Kim Jong Il has understandably set neighboring South Korea and other countries in the region on edge. But should it put the western world on high alert as well, for possible cyberattacks?

Two cyber security experts have different views on the matter.

There is general agreement that the transition of power could bring significant instability to the region. While the dictator's son, Kim Jong Un, was named by his father to succeed him, the twenty-something Kim has had only two years to be groomed for the position, while his father had 14. He was made a four-star general by his father, but has never served in the military.

And even if the younger Kim does take power seamlessly, there is speculation that he may deliberately act aggressively to quash even the thought of an "Arab Spring" type of rebellion, to consolidate his power and establish a reputation throughout the world that he will be just as unpredictable and threatening as his father.

South Korea's largest news agency, Yonhap, reported that the country had put its military on high alert.

Korea Communications Commission (KCC) raised the cyber alert to the third-highest level over the weekend and stepped up monitoring on distributed denial-of-service attacks, hacking incidents and other assaults via the Internet.

John Linkous, vice-president and chief security and compliance officer of eIQnetworks, says this amount to "a strong possibility" that North Korea could launch cyberattacks against the U.S.

And he says neither private industry nor government may be adequately prepared.

"On the commercial side, if you look at all the successful cyberattacks over the past year, businesses are not prepared," he says, noting that most of those attacks are from smaller organizations, not nation states.

"On the federal side, I would like to think we are prepared, but we probably are not," Linkous says. "We have so many infrastructures spread out over the world that economically and mathematically it's almost not feasible."

He notes that Vivek Kundra, former U.S. chief information officer, gave



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government cybersecurity a "B" grade before he left office in August.

"The (attack) vectors themselves are not that sophisticated, but they don't need to be," he says. "The reality is that this is a nation that clearly views itself as world leader and wants to assert itself in every way. Cybersecurity is a big part of that.

But Gary McGraw, chief technology officer for Cigital, doesn't see the political instability in the country as a direct threat, and says he doesn't think North Korea has the ability to launch a disabling cyberattack.

"A few times in the past North Korea has been blamed for stuff without much evidence, and it

wasn't much beyond denial of service anyway," he says.

McGraw says the kind of attacks that might come from North Korea, are the kinds of things that Google and Amazon probably wouldn't even notice, and if they did, they would have no trouble shutting them down."

He says while cyberwar should be taken seriously, some of the fears about it are the result of hype.

North Korea, he says, has much more serious internal problems to confront.

"Why are we wringing our hands over cyberwar?" he asks. "We ought to be wringing our hands over the fact that they can't even feed their own people."

### McAfee releases 2012 cyber threat predictions

Source: <http://blogs.mcafee.com/consumer/2012-mcafee-threat-predictions-consumers>

The cyberthreats organizations and individuals are likely to face in 2012 will resemble those they faces in 2011, only more so; among the increased threats: attacks on critical infrastructure, mobile devices and consumer electronics, and politically motivated attacks



McAfee has released its list of the major cybersecurity threats organizations and individuals are likely to face in 2012. The company says that for the most part, 2012 looks like it will contain an elevation of many of the threats recently seen to be gaining momentum. Here are the predictions:

**1. Disrupted utilities like water and power:** earlier in the year a Southern California water systems hired a hacker to find vulnerabilities in its computer networks. The

hacker had no trouble seizing control of their equipment and adding chemicals to the drinking water, and do all this in day.

McAfee says that many industrial and national infrastructure networks were not designed for modern connectivity, making them vulnerable. "We expect attackers to take advantage of the situation in 2012, if only for blackmail or extortion, but in a worst-case scenario public utilities such as water and electrical services could be disrupted."

**2. Affecting political change through hacktivism:** hacktivism is the use of computers or computer networks to protest or promote political change. A great example of this is the "Anonymous" group which was active last year doing high profile activities such as briefly taking down New York Stock Exchange's Web site in support of the Occupy Wall Street protests.

McAfee says it expects more organized digital disruptions to come in 2012.

**3. More spam in consumers' inboxes:** the new trend in spamming is sending e-mails from advertising companies that obtain their e-mail lists through shady but legal means. They may buy the lists from companies that are going out of business or partner with other advertising entities or mail-list providers without taking into account privacy policies.

McAfee notes that spammers can do this because under the U.S. CAN-SPAM Act advertisers are not required to receive consent before sending advertising.



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Since this method is cheaper and less risky than bombarding consumers with spam from networks of compromised computers, this activity is likely to continue to grow through 2012, possibly resulting in more spam in inboxes.

### 4. Malware aimed at mobile phones:

Cybercriminals are now testing their creativity with mobile malware in the form of malicious applications. Once downloaded, they can deliver a variety of ads or even send expensive text messages from your phone. They are using botnets — a collection of compromised computers that have traditionally been used to do things like send spam — to target mobile platforms.

McAfee says that mobile malware is not common now, but that it expects these attacks to increase through next year.

**5. Compromised cars, GPS trackers, and other devices:** cybercriminals are now targeting embedded operating

systems or even hardware to gain control of everything from cars to GPS trackers and medical equipment. They can do this two ways — either through infiltrating the device when it is being manufactured or through the easier route of tricking users into downloading malware that can penetrate the “root” of the system.

McAfee expects hackers to become more effective in 2012 and beyond, potentially affecting systems such as consumer electronics.

**6. Cyberwar:** there has recently been an increase in high-tech spying and other cyber techniques to gain intelligence, even if on a small scale. Many countries are now realizing the crippling potential of cyberattacks against critical infrastructure, and realize how hard they are to defend. This dangerous possibility is out there.

## Stratfor - Lessons Learned

By Gregory W. MacPherson, Computer Security Expert, CISSP, etc.

Source: <http://seclists.org/isn/2012/Jan/6>

The stratfor.com hack is old news by now, so what lessons, if any, are there to be learned from this high profile data spill?

To review, stratfor.com private data including

theft but more importantly exposed the security practices of those users, as well as the security practices of stratfor.com.

A review of the data and of the incident suggests several points worthy of consideration. The data was compromised using either a cross site scripting or SQL injection attack. From this fact one might conclude that application security trumps data security, and in this case one would be correct. Of course if the administrators of stratfor had practiced basic data security techniques such as encrypting data at rest, then the sensitive PII of tens of thousands of users might not be on display for the world today. While the Web site did incorporate SSL for user transactions, the account and credit card information existed in a data store in clear text rather than as encrypted hash values. Once the

credit cards, user accounts, and passwords was dumped on pastebin.com on Christmas Day, 2011. The data spill exposed not only tens of thousands of users to potential identity

theft but more importantly exposed the security practices of those users, as well as the security practices of stratfor.com. A review of the data and of the incident suggests several points worthy of consideration. The data was compromised using either a cross site scripting or SQL injection attack. From this fact one might conclude that application security trumps data security, and in this case one would be correct. Of course if the administrators of stratfor had practiced basic data security techniques such as encrypting data at rest, then the sensitive PII of tens of thousands of users might not be on display for the world today. While the Web site did incorporate SSL for user transactions, the account and credit card information existed in a data store in clear text rather than as encrypted hash values. Once the exterior security of the site was breached, regardless of the method, the entire site was compromised. This is referred to in the vernacular as "hard



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exterior, soft chewy inside" and is an unfortunate and prevalent security strategy. Numerous discussions of layered security have addressed the point, therefore I will not belabor it here. Suffice to say that the administrators of stratfor.com now may be viewed as idiots for not following well documented and oft published best practices for computer security. A heuristic study of the user account credentials reveals another salient fact: stratfor users are idiots as well when it comes to security. The password distribution curve for stratfor includes multiple uses of passwords of one character, two characters, three characters, ad nauseum. Additionally dozens of "joe" accounts - accounts where the password echoed the username - are in evidence. Stratfor.com made no effort to enforce a strong password policy - a few lines of JavaScript would have sufficed - and as a consequence we find embarrassing examples such as username stratfor, password stratfor. One real benefit of this data breach is that it illustrates a real world example of the poor choices that users make when it comes to computer security. Strong security must be enforced, not optional, and allowing users to decide whether the security measures inconvenience them leads to situations such as the current topic of discussion.

A third point for consideration is the situation where multiple users with credentials ending in TLDs such as dot-edu, dot-gov, and dot-mil utilized passwords on stratfor.com that echo their credentials on their more sensitive home sites. One would like to think that people who boast of academic, government, or military credentials would be more cognizant of their responsibility to protect the privileged information entrusted to them, but apparently they too, despite their august credentials, are idiots when it comes to authentication credentials and the management thereof. Suffice to say that dot-mil sites routinely employ two-factor authentication to prevent compromises of this exact sort. Some government sites also employ two-factor authentication methods, and possibly a few academic sites do as well. For those sites which rely solely on the arcane userid and password combination, I suspect that this holiday season was less than merry as their security staff worked late to try and head off the

inevitable compromises that would result after dozens of credentials were published.

Finally, not to put too fine a point on it, but the strategy employed by the villains in this scenario - security by embarrassment - remains the sole successful motivational strategy when it comes to computer security. Businesses, academic institutions, government and military all continue to denigrate the role for security in the infrastructure, allocating it the moniker of a "cost of doing business" and placing it strategically somewhere near the bottom of the priority list above performance tuning and documentation. Unfortunately incidents such as the most recent compromise continue to illustrate that business people are idiots when it comes to technology. Decision makers refuse to accept that competent adversaries exist and that those adversaries are both capable and willing to exact this sort of toll on their ability to do business.

Stratfor.com will recover from the recent compromises, and will have a stronger and more robust security posture - for a while. Then business decision makers will become complacent and will look for areas to "cut costs" - and security once again will be relegated to the position of the "kid who gets picked last for the team sport".

If any lesson is to be learned, business people should look at this incident as an example of "the emperor has no clothes" and be more amenable to the entreaties of their technologists and security architects who berate the CFOs and CEOs for funds to allow them to protect the enterprise. While the primary goal of any enterprise - whether private or public - is to "sell widgets". However no store owner of any repute would leave his shop unlocked, unguarded, and unprotected in a "bad neighborhood" - and the Internet is the worst neighborhood possible. At the same time, store owners must be wary of charlatans and snake oil sales people, so choose your computer security expert wisely.

Security best practices have been well documented. It's time for a course in computer security to be added to the lexicon of the business graduate. To neglect the necessity of securing the enterprise properly is for a store owner to leave their cash register unguarded during a riot - idiocy.



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### Japan develops virus to counter cyber-attacks: But can it be used?

Source: <http://www.zdnet.com/blog/asia/japan-develops-virus-to-counter-cyber-attacks-but-can-it-be-used/635>

Japan's Ministry of Defense has commissioned Fujitsu to create a 'search and destroy' virus to counter cyber-attacks, but current legislation prevents its use.

The Japanese Ministry of Defense has revealed its latest project to tackle hacking: a 'seek and destroy' virus designed to track and disable the source of cyber-attacks.

The project, launched in 2008, cost \$2.3 million over three years. Several companies competed for the contract, but Fujitsu was eventually commissioned to develop the new 'cyberweapon'.

The virus has already undergone testing in a closed network environment.

The major feature of the virus is the ability to trace down the source of cyber attacks, including 'spring board' computers used in the attack. The idea is that the 'cyberweapon' will also be able to disable the attacking program and collect information.

According to *The Daily Youmuri*, the virus is particularly effective against distributed denial-of-service attacks, a common form of cyber attack where hackers bombard websites with enormous volumes of data, forcing sites to shut down.

Unfortunately, Japan's Ministry of Defense still has several hurdles to jump before this project can be utilised.

Current Japanese legislation prohibits an 'offensive' retaliation to cyber-attacks, meaning that the current laws will need to be updated before the cyberweapon could be used.

Equally, creating a virus of this sort would violate a clause banning virus production in the Criminal Code.

Ministry officials said that they presently have no authorisation to use cyberweapons to counter cyber-attacks from abroad, unless they are properly defined in defence laws.

Japan's lack of defence when it comes to cyberattacks has drawn criticism recently. A senior ministry official stated that: "Japan will be the only nation with no effective cyber-attack countermeasures unless the legal issue is settled as soon as possible".

Minoru Tereda, a former parliamentary defense secretary, said it is, "regrettable", adding: "Even if cyberweapon development continues, there will be no way to fully take advantage of it".

Fujitsu has declined to comment on the project, but Ministry has said so far that it is not considering outside applications for the program at this point.

### Kaspersky Lab Cyberthreat 2012 forecast

Source: <http://mybroadband.co.za/news/security/40779-kaspersky-lab-cyberthreat-2012-forecast.html>

Kaspersky Lab have picked out the key trends of the past 12 months and compiled a report that highlights the major new features on the security landscape for 2012.

The most significant stories of 2011 according to Costin Raiu, Director of Kaspersky Lab's Global Research & Analysis Team, were:

1. **The Rise of 'Hacktivism'** – one of the major trends of 2011, and no doubt it will continue into 2012.
2. **The HBGary Federal Hack** – how weak passwords, old software systems, and use of the cloud created a security nightmare.
3. **The Advanced Persistent Threat** – these attacks confirm the emergence of

cyber-espionage as common practice among powerful state actors.

4. **The attacks against Comodo and DigiNotar** – trust in certificate authorities (CA) is under threat. In the future, CA compromises may become more widespread. Besides, it is likely that more digitally-signed malware will appear.
5. **Duqu and Stuxnet** – state-of-the-art cyber warfare.
6. **The Sony PlayStation Network Hack** – the new perils hidden in the cloud. Personally Identifiable Information (PII) is conveniently



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available in one place, accessed over fast Internet links; ready to be stolen in case of any misconfigurations or security issues.

7. **Botnet Takedowns and the battle against Cybercrime** – serving notice to the cyber gangs that their scams are no longer risk-free. But every battle shows up the vast limitations of today's legal systems when it comes to a coordinated and effective approach to cybercrime.
8. **The Rise of Android Malware** – several factors make Android vulnerable to cybercrime: rapid growth; freely available documentation about the platform; and weak screening at Google Market, making it easy to upload malicious programs.
9. **The CarrierIQ Incident** – do you know exactly what is running on your mobile device? A single incident highlighted how little we know about who is in control of our hardware.
10. **Mac OS Malware** – the crossover of PC threats (rogue AV programs are one of the most popular malware categories for PCs) to Macs was another important trend of 2011.

"We selected these stories because they point to the major actors of 2011 who will no doubt continue to play a major role in the cyber-security blockbuster which is just around the corner," according to Raiu.

"At the moment, the majority of incidents affect companies and state organisations involved in arms manufacturing, financial operations, or hi-tech and scientific research activities. In 2012 companies in the natural resource extraction, energy, transport, food and pharmaceutical industries will be affected, as well as Internet services and information security companies," warns Alexander Gostev, author of the 2012 Cyberthreat Forecast for 2012.

Kaspersky Lab experts predict that attackers will have to change their methods in response

to the growing competition among the IT security companies that investigate and protect against targeted attacks. Increased public attention to security lapses will also force the attackers to search for new instruments.

The conventional method of attacks that involve email attachments with vulnerability exploits will gradually become less effective, while browser attacks will gain in popularity.

The Kaspersky Lab forecast goes on state that hacktivist attacks on state organisations and businesses will continue in 2012 and will have a predominantly political agenda. Gostev believes this will be an important trend when compared to similar attacks in 2011. However, hacktivism could well be used as a diversionary tactic to conceal other types of attacks.

Hi-tech malicious programs such as Stuxnet and Duqu created with state support will remain unique phenomena. Their emergence will be dictated by international tensions between specific countries. In Gostev's view, the cyber conflicts in 2012 will revolve around traditional confrontations – the US and Israel versus Iran, and the US and Western Europe versus China.

More basic weapons designed to destroy data at a given time, such as kill switches, logic bombs etc. will become more popular as they are easier to manufacture. The creation of these programs can be outsourced to private contractors used by the military or other government agencies. In many cases the contractor may not be aware of the customer's aims.

In terms of mobile threats in 2012, Kaspersky Lab expects to see Google Android continue to be the target of choice for the mobile malware market as well as an increase in the numbers of attacks that exploit vulnerabilities. The emergence of the first mobile drive-by attacks and mobile botnets are also forecast.

Mobile espionage will become widespread and will most probably include data theft from mobile phones and the tracking of people using their telephones and geolocation services.

### Stuxnet and Duqu part of assembly line

Source: <http://www.homelandsecuritynewswire.com/dr20120118-stuxnet-and-duqu-part-of-assembly-line-researchers>

Stuxnet, the highly sophisticated piece of malicious code that was the first to cause

physical damage, could just be the tip of the iceberg in a massive cyberweapon



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manufacturing operation. According to cybersecurity researchers at Kaspersky Labs and Symantec, Stuxnet appears to be part of a larger cybersecurity weapons program with fully operational and easily modified malicious code that can be aimed at different targets with minimal costs or effort.

Since Stuxnet's discovery, the two companies have been hard at work deciphering the code and both found common digital traces for at least seven "launcher" files made from the same software platform. A launcher file is used to secretly insert malicious code onto a computer along with any additional code needed to make the payload function.

So far the seven discovered launcher files contain portions of identical source code, with minor, but critical, differences. Two of the files are known to be used by Stuxnet and two others are used by Duqu, a recently discovered intelligence gathering program thought to be a precursor to Stuxnet.

The remaining three launchers could be associated with unknown versions of Stuxnet and Duqu, or undiscovered cyberweapons currently in operation.

Costin Raiu, the director of the global research and analysis team at Kaspersky

Labs, explained, "Stuxnet's creators used a [software] platform to package and deliver it, because they wanted to be able to make many cyberweapons easily and be able to change them rapidly for targeting and attack."

Raiu added, "Let's imagine you want to steal documents. You don't need the sort of sabotage capability built into Stuxnet, so you take that off. Instead, you use the same platform to create targeted malware, but perhaps focusing on espionage instead. That's Duqu."

Liam O Murchu, Symantec Security Response's manager of operations, said Symantec's research corroborates Kaspersky's findings.

"We've done the same analysis Kaspersky has, and seen the same timelines, dates, encryption keys," O Murchu said. "We think Stuxnet and Duqu are made by the same team, with the same goal.... They can change [the software

weapon produced on the common platform], manipulate it, have different payloads."

Using a common platform, the code's creators can quickly and conveniently reuse software that was expensive to develop. The common platform is similar to a factory production process for building exotic cars where there are many common parts like a frame or an engine, but certain portions must be custom built. This system allows for the quick assembly of existing code to create fully-developed cyberweapons that can be modified to target new industrial control systems or evade detection.

The latest discovery of a common platform, has divided the cybersecurity community with experts disagreeing on the implications.

Don Jackson, a senior security researcher with the Dell SecureWorks Counter Threat Unit, argued that it is unlikely that the platform suggests one lab or set of researchers created

all of the malicious software, instead it is more likely that different groups used the same "kit."

"Many other dimensions of the separate attacks indicate no common authorship or attribution,"

Jackson said.

In contrast, Ed

Skoudis, the cofounder of InGuardians, a cybersecurity firm, agreed with Kaspersky and Symantec.

"It makes tremendous sense," Skoudis said. "Look at the effort needed to produce Stuxnet. You wouldn't want to do it in a way that was one-off. You would want to produce a process that could reuse the parts, not shoot your entire cache of weapons in one attack."

As an example, Skoudis pointed to the United States and its efforts to build the first atomic bomb.

"When the U.S. built the atom bomb, it wasn't just the one. We had an infrastructure and platform for building additional weapons," Skoudis said. "Whoever built Stuxnet got a lot of money and a lot of smart people working on it. It just makes sense that creating these kinds of weapons be repeatable –and that some set of fingerprints are left behind that shows that."





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Adding to the analogy, Raiu likened the Stuxnet manufacturers to a high-tech laboratory developing futuristic weapons.

"What's going on seems not so much like a weapons factory as much as a super-secret lab that creates experimental cyberweapons," he

said. "It's more like they're making ion cannons or something – but for cyberwar. These are not normal line weapons, but the highest tech possible to wage cyberwar and cybersabotage."

### Hackers manipulated railway computers, TSA memo says

Source: [http://www.nextgov.com/nextgov/ng\\_20120123\\_3491.php?oref=topstory](http://www.nextgov.com/nextgov/ng_20120123_3491.php?oref=topstory)

Hackers, possibly from abroad, executed an attack on a Northwest rail company's computers that disrupted railway signals for two days in December, according to a government memo recapping outreach with the transportation sector during the emergency.

On Dec. 1, train service on the unnamed railroad "was slowed for a short while" and rail schedules were delayed about 15 minutes after the interference, stated a Transportation Security Administration summary of a Dec. 20 meeting about the episode obtained by *Nextgov*. The following day, shortly before rush hour, a "second event occurred" that did not affect schedules, TSA officials added.

The agency is responsible for protecting all U.S. transportation systems, not just airports.

"Amtrak and the freight rails needed to have context regarding their information technical centers," the memo stated. "Cyberattacks were not a major concern to most rail operators" at the time, adding, "the conclusion that rail was affect [sic] by a cyberattack is very serious."

While government and critical industry sectors have made strides in sharing threat intelligence, less attention has been paid to translating those analyses into usable information for the people in the trenches, who are running the subways, highways and other transit systems, some former federal officials say. The recent TSA outreach was unique in that officials told operators how the breach interrupted the railway's normal activities, said Steve Carver, a retired Federal Aviation Administration information security manager, now an aviation industry consultant, who reviewed the memo.

"This TSA program is a start to bring, at a higher level, an understanding of the national

impact to cyberattacks," Carver said. The U.S. Computer Emergency Readiness Team and the Pentagon's National Security Agency "have provided great information on the particular threat. They don't say how it has affected



others. TSA tells you how it affected others."

The incident summary praised several TSA personnel for explaining the unfolding situation in context. When TSA investigators began to suspect the exploit was an intentional act rather than a glitch, they acted under the assumption it could present a broader danger to the U.S. transportation system, according to the memo.

"Some of the possible causes lead to consideration of an overseas cyberattack," the write-up stated. Investigators discovered two Internet access locations, or IP addresses, for the intruders on Dec. 1 and a third on Dec. 2, the document noted, but it does not say in which country they were located.

"Information stating the incidents were a targeted attack was not sent out" until midday on Monday, Dec. 5, according to the memo. The data that train operators needed to diffuse the situation was made available to them, officials wrote. Alerts listing the three IP addresses went out to several hundred railroad firms and public transportation



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agencies, as well as to partners in Canada.

"The processes set in place for government to work with the industry in real-time communications regarding a cyber event aligned superbly," the recap stated.

Participants in the Dec. 20 meeting included representatives from information technology firm Indus Corp., the Association of American Railroads, and Boeing Co., as well as government officials from TSA, the Homeland Security Department's cybersecurity divisions, the Transportation Department, and the U.S. Coast Guard.

But, on Monday, officials at the Homeland Security Department, which oversees TSA, said following additional in-depth analysis, it appears that the rail infiltration may not have been a targeted attack.

"On December 1, a Pacific Northwest transportation entity reported that a potential cyber incident could affect train service," DHS spokesman Peter Boogaard said. "The Department of Homeland Security, the FBI and our federal partners remained in communication with representatives from the transportation entity in support of their mitigation activities and with state and local government officials to send alerts to notify the transportation community of the anomalous activity as it was occurring."

Based on the memo, it is unclear if other railway companies have experienced similar

network incidents. Companies often are reluctant to discuss computer breaches openly for fear of scaring off customers. And, sometimes, businesses never detect the intrusions, they add.

For government to improve cyber emergency response, "the biggest thing is to start with the communications staff," Carver recommends. "There needs to be an interpreter who can take the information coming out of the U.S. CERT, take that, extract that out, and determine what it means for operations."

Rail industry representatives said they were not at liberty to discuss the contents of the government memo but said the memo was inaccurate. "There was no targeted computer-based attack on a railroad," said Holly Arthur, a spokeswoman for the Association of American Railroads. "Railroads closely monitor cyber security as a fully integrated part of both the industry's overall security plan, as well as individual company plans. Continuous coordination on cyber security occurs across the industry and with the federal government," she said.

"In addition to security measures, railroads like other high tech industries have multiple backup capabilities and ultimately manual operation procedures to address virtually any type of disruption," Arthur said.

## Cyber crime 'to overtake terrorism' as top threat facing the US

Source: <http://www.scmagazineuk.com/cyber-crime-to-overtake-terrorism-as-top-threat-facing-the-us/article/225613/>

Iran has been identified as the main cyber threat to the United States as the office of the Director of National Intelligence (DNI) claims that intrusions are not being detected.

The report by DNI James R. Clapper identified Iran as the main danger to America's information security.

It said: "Russia and China are aggressive and successful purveyors of economic espionage against the United States. Iran's intelligence operations against the United States, including cyber capabilities, have dramatically increased in recent years in depth



and complexity. We assess that FIS (foreign intelligence services) from these three countries will remain the top threats to the United States in the coming years."

He also claimed that FIS have launched numerous computer network operations that target US government agencies, businesses and universities, and believed that "many intrusions into US networks are not being detected".

"Although most activity detected to date has been targeted against unclassified networks connected to the internet, foreign cyber actors have also



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begun targeting classified networks,” he said. On insider threats, Clapper said insiders have caused significant damage to US interests through the theft and unauthorised disclosure of classified, economic and proprietary information and other acts of espionage. Observing the sophistication of computer network operations (CNO), Clapper said these are likely to increase in coming years. He acknowledged the two strategic challenges regarding cyber threats as: the difficulty of providing timely, actionable warning of cyber threats and incidents, such as identifying past or present security breaches, definitively attributing them and accurately distinguishing between cyber espionage intrusions and potentially disruptive cyber attacks; and the highly complex vulnerabilities associated with the IT supply chain for US networks.

“In both cases, US government engagement with private sector owners and operators of critical infrastructures is essential for mitigating these threats,” he said.

According to ABC News, FBI director Robert Mueller said cyber espionage, computer crime and attacks on critical infrastructure will surpass terrorism as the number one threat facing the US.

He said: “I do not think today it is necessarily [the] number one threat, but it will be tomorrow. Counterterrorism – stopping terrorist attacks – with the FBI is the present priority. But down the road, the cyber threat, which cuts across all [FBI] programs, will be the number one threat to the country.”

Research by NCC Group found that cyber crime originating from the UK cost the global economy more than £1.3bn in 2011, with more than 23 million hacks attempted. This placed the UK at 15<sup>th</sup> in its global hacking league table, with the US and China positioned first and second respectively.

Together those two countries are responsible for nearly 40 per cent of the world's hack attempts, costing the global economy more than \$44bn each year.

Rob Cotton, NCC Group's chief executive, said: “Reading the papers each day, it's easy to think of hacking as something that happens to us from afar; that we're victims of foreign criminal gangs in developing countries. Yet hackers can be anywhere in the world, as our research illustrates, including on our own doorstep.

“Fighting this global threat will only work with global collaboration. We hear lots about governments wanting to work together and there's a strong financial motivation to find this long-suggested global solution, but progress is painfully slow.”

Akamai said half of the attack traffic against its platform came from Asia, largely from Indonesia, while Taiwan and China accounted for just under 20 per cent of observed attack traffic.

Attacks from South Korea tripled, while attack traffic originating in Europe was down slightly to 28 per cent, and North and South America accounted for nearly 19 per cent. The remaining four per cent came from Africa.

### Ranking countries' cyberattack preparedness

Source:<http://www.homelandsecuritynewswire.com/srinfrastructure20120206-ranking-countries-cyberattack-preparedness>

A new McAfee cybersecurity survey concluded



that Israel, Finland, and Sweden are leading other countries in “cyber-readiness.” The

report says that China, Brazil, and Mexico are among the least cyber-prepared to defend these countries' networks against cyber attacks.

The ranking was on a continuum from one star (unprepared for cyberattacks) to five stars. No country received either five stars or one star. Israel, Finland, and Sweden received four-and-a-half stars each.

The BBC reports that the United Kingdom, with a grading of four out of five stars, ranks favorably in the survey, along with the United States, Germany, Spain, and France.



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The survey was conducted by the Security and Defense Agenda (SDA) organization.

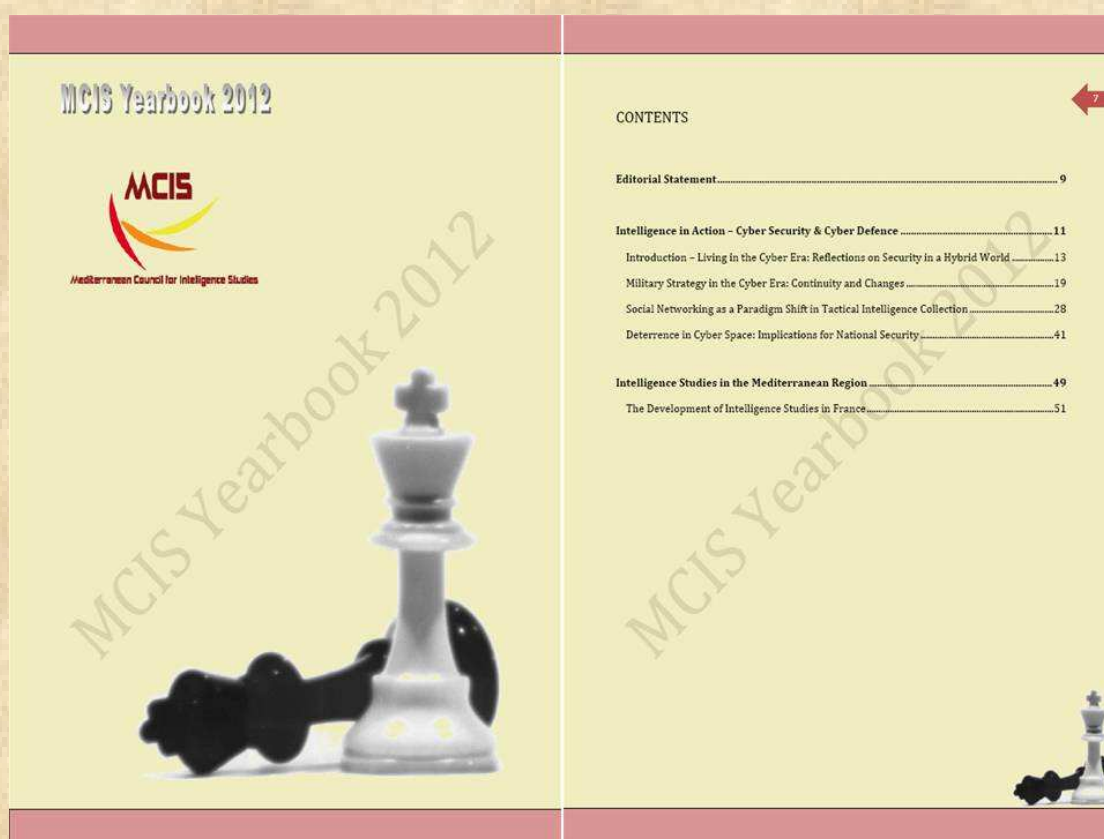
The report recommends that countries engage in more information sharing on national security issues, but experts in the field doubt this particular recommendation will be adopted. Dr. Joss Wright from the Oxford Internet Institute, while welcoming the report's findings, told the BBC he had serious doubts over the feasibility

of its suggestions. "They're recommendations that people have been saying for maybe 10 years," he told the BBC. I would love to see good information sharing - but when you're talking about national security, there's a culture of not sharing. They're not suddenly going to change 70, 100, 1000 years of military thinking."

**NOTE:** You can download full report from Newsletter's website – "CBRNE/CT Papers" link.

## Mediterranean Council for Intelligence Studies (MCIS) – 2012 Yearbook

► Special focus in cyber-defence.



**NOTE:** You can download full report from Newsletter's website – "CBRNE/CT Papers" link.

## Lockheed Martin's NextGen cyber lab

**Contributor:** Andrew Elwell

Source: [http://www.defenceiq.com/defence-technology/articles/a-tour-around-lockheed-martin-s-nextgen-cyber-](http://www.defenceiq.com/defence-technology/articles/a-tour-around-lockheed-martin-s-nextgen-cyber-lab/)

[lab/&utm\\_source=defenceiq.com&utm\\_medium=email&utm\\_campaign=DefOptIn&utm\\_content=2/14/12](http://www.defenceiq.com/defence-technology/articles/a-tour-around-lockheed-martin-s-nextgen-cyber-lab/&utm_source=defenceiq.com&utm_medium=email&utm_campaign=DefOptIn&utm_content=2/14/12)



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Defence IQ was recently given exclusive access to Lockheed Martin UK's NexGen Cyber Innovation and Technology Centre (NCITE) at its hub in Farnborough. There to meet us was John Plumb, NCITE UK Manager, who gave us a tour of the cyber lab while discussing the role of NCITE and how the Centre's work is becoming increasingly important in this network-centric age.

### What is NCITE?

NCITE, previously known as Swift until a rebrand in January 2011, is part of Lockheed's Integrated Systems & Global Solutions (IS&GS) division, which focuses on three predominant sectors: Defence, Civil and National (also referred to as Security).

"When this Lab was set-up in 2006 it was really about showcasing what Lockheed had to offer but in 2009 we expanded to specifically undertake F-35 operational analysis," Plumb explained.

Since changing name to NCITE last year, the Centre has also altered its focus and its role is now evolving within the Lockheed Martin NextGen Innovation framework.

"Because we support the whole of Lockheed Martin UK we get to see everything. We've become a catalyst for horizontal integration," Plumb said. "We often bring parties together and we play a technology consultancy role by default."

The facility in Farnborough is home to over 200 Lockheed Martin employees, with around 15 of these dedicated to the NCITE lab.

### ...Excite at NCITE

We asked what NCITE did and about some of the activities it undertakes on a day-to-day basis.

"We host events and technology demonstrations; we have facilitated collaborative workshops, like MTDS (Mission Training via. Distributed Simulation) with NATO industry partners ... and we provide facilities for other people to do training," Plumb explained. "We have a large data repository, which has for example intelligence reports, open source data, such as Jane's

information, and full motion video which we generated using modelling and simulation tools.

"We also provide consultancy on project management and conduct rapid prototyping with scenario generation," Plumb added.

Elaborating on the bigger picture, Plumb said: "We're an IS&GS lab so we support IS&GS and their strategic thrust within the UK, Europe, the Middle East, and we've also undertaken some work for countries further East like India. Those strategic thrusts aren't just defence; our Civil division deals with air traffic control, the postal sorting, and it recently did the UK census for example."

Breaking it down, around 60% of NCITE's



capabilities are directed towards R&D, with 30% being event hosting and the remaining 10% consultancy work. Focusing in on the main aspects that underpin NCITE's role, Plumb explained that collaboration and research and development (R&D) were the driving forces.

"The big thing about this place is collaboration, it's not just about using Lockheed Martin's expertise but it's also focused on bringing in partners and working with them to build customer solutions ... that is one of the major thrusts for NexGen."

Emphasising the collaboration aspect, Plumb said that "We look for best-of-breed capabilities, if we don't have it we will get a partner who does."



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“We aim to do joint R&D, that’s the vision.”

Plumb said that since becoming NCITE last year there was a “much greater emphasis on research and development now.” However, the lab’s role is again evolving as it seeks to integrate further into the supply chain.

“After concluding the R&D phase we tend to hand-over to deliver teams, although the CONOPS (Concept of Operations) that was revised at the end of last year for NexGen suggested that we should now grow our research and development to a higher state of maturity so that we may actually go on to support the delivery. We haven’t done it ourselves yet, but that is an important shift I think.”

### Shifting from Swift, to NCITE, and now looking ahead...

Discussing the future for NCITE UK, Plumb explained that “there’s been a change in emphasis recently; cyber is really being driven heavily by IS&GS now.” Also based in Farnborough is the UK Security Intelligence Centre (SIC), which is dedicated to the detection, identification and response to information security incidents. NCITE works in close collaboration with the SIC, which was only opened in December, to develop Lockheed Martin UK’s cyber capabilities.

Last year was the year cyber threats suddenly became very real, with Lockheed joining a long list of other corporations like Sony, Booz Allen Hamilton and RSA to have been targeted by hacking groups like LulzSec and Anonymous. Plumb was reluctant to go into the details of the incident but it is clearly playing a formative part of the company’s drive for cyber hygiene. Part of NCITE UK’s role is to help develop these cyber capabilities in collaboration with other labs and IRAD.

At the opening of the UK SIC Giri Sivanesan, Lockheed Martin UK Head of Cyber, said: “In the future we will be looking to support more customers in the public and private sector through advanced cyber defence solutions and training customer staff in the latest cyber tradecraft.”

Aside from cyber, Plumb talked through a number of other initiatives that NCITE UK is looking at in the future.

“The other thing that we want to do more of is replicating communication links, for example modelling tactical data link protocols and modelling bandwidth constraints so that you can stress the system to see where the choke points are. They are real-world issues. We’re hoping to get more capability in to do just that.” Much of the work NCITE is involved with centres around aerospace applications, but Plumb and Simon Russell, NCITE UK’s Chief Engineer, were quick to underline the significance of NCITE’s work across the defence spectrum as it becomes increasingly net-centric.

“The demand for data and information exchange is going up. In the future customers will need to put in the requisite measures to actually ensure that they can manage that



information exchange, that it increases and still be secure, which is quite a big challenge across the land, sea, maritime and space domains.”



## Hezbollah denies US money laundering charges

By Zeina Karam

Source:<http://www.google.com/hostednews/ap/article/ALeqM5inu-iGTFr4rVWxg21RYPaWSJF1KQ>

Lebanon's Hezbollah is denying US allegations of involvement in a \$300 million laundering scheme and drugs trafficking, with its deputy leader claiming in comments published Tuesday the charges were false and that America was "not fooling anyone" with accusations meant to harm his anti-Israeli group.

Sheik Naim Kassem said the Iran-backed Shiite Muslim group does not follow "a religiously prohibited path" to develop its resources and that the accusations were part of U.S. efforts to tarnish Hezbollah's image.

His remarks to supporters Monday evening followed accusations by U.S. federal authorities last week that Lebanese financial institutions wired more than \$300 million to the United States in a laundering scheme they said used the U.S. financial system to benefit Hezbollah.

"America's allegations of money laundering or financing the group from narcotics money are not fooling anyone," Kassem said.

The remarks, published on Hezbollah's website Tuesday, were the group's first on the issue.

The U.S. government said in the lawsuit filed in a Manhattan federal court that it seeks nearly a half-billion dollars in money-laundering penalties from some Lebanese financial entities, 30 U.S. car buyers and a U.S. shipping company.

Prosecutors said the \$300 million was wired from Lebanon to the United States and used to buy used cars and ship them to West Africa. They said Hezbollah money-laundering channels were used to ship proceeds from the car sales and narcotics trafficking back to Lebanon.

The U.S. accusations came after an indictment in federal court in Virginia accused fugitive Ayman Joumaa of leading a drug conspiracy that provided income for Hezbollah, which has been designated by the U.S. State Department as a terrorist organization since 1997.

A Washington-based Drug Enforcement Administration spokesman, Lawrence R. Payne, told The Associated Press in February that Joumaa's organization laundered money using 50 used car lots in the United States. Cars were exported to Lebanon and West Africa.

U.S. Attorney Preet Bharara said the civil case brought Thursday reveals a massive international scheme in which Lebanese financial institutions, including banks and two exchange houses linked to Hezbollah, passed money through the U.S. financial system to launder narcotics trafficking and other criminal proceeds through West Africa and back into Lebanon.

The government said substantial portions of the cash were paid to Hezbollah.

## Al Qaeda Rebranding Itself to Boost its Image

Source:<http://www.forbes.com/sites/marcbabej/2011/12/15/al-qaeda-rebranding-itself-to-boost-its-image/>

File this one under "marketing efforts you hope will fail": Fox News reports that Al

Qaeda in the Arabian Peninsula (AQAP) has been unable to recruit



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enough foreign fighters of late, and is laying part of the blame on negative associations with the Al Qaeda brand. According to an unnamed Arab diplomat, “after (Usama) bin Laden’s death and the Arab Spring, the name (al Qaeda) seems to have negative connotations and baggage.” Since then, AQAP has increasingly been using the name *Ansar al Sharia* (Army of Islamic Law).

Rick “Ozzie” Nelson, director of homeland security and counterterrorism at the Center for Strategic and International Studies, has also noticed the shift away from the Al Qaeda name, telling Fox News that “moving away from the larger al Qaeda brand is something I think we’re starting to see more of.” With the death of bin Laden, it makes sense for groups to become more diffused from centralized leadership so they can focus on regional issues rather than brand-building, he said.

Would-be recruits are “finding that the al Qaeda core is no longer beneficial to be associated with ... because their main leader is gone,” Nelson said, noting that Usama bin Laden was a charismatic leader who offered a lot of financial backing and Ayman al-Zawahiri “is not an effective replacement.”

Papers discovered at Bin Laden’s compound in Pakistan reveal that Bin

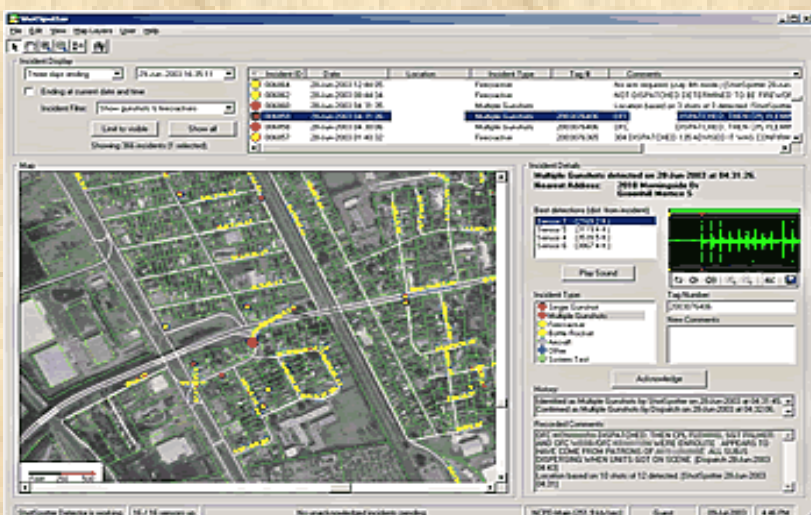
Laden himself had also toyed with the idea of rebranding the Al Qaeda mother organization. Two of the names he came up with *Taifat al-Tawhed Wal-Jihad* (Monotheism and Jihad Group), and *Jama’at l’Adat al-Khilafat al-Rashida* (Restoration of the Caliphate Group). Apparently, naming was not his strong suit. Will the tactic succeed? Unlikely. Introducing a new name is time-consuming, costly and risks loss of equity. What’s more, it misses the point in this case: the only way for AQAP to boost recruitment is through its “product” (read: high-profile acts of terror). Let’s hope AQAP’s “product development” is as misguided as its marketing tactics.

All that said, Al Qaeda leaders don’t have a monopoly on developing unappealing names for unsavory organizations. My #1 in that department was created for the Spanish Falange movement under the Franco dictatorship: *Falange Española Tradicionalista y de las Juntas de Ofensiva Nacional-Sindicalista* (which translates into Spanish Traditionalist Phalanx of the Assemblies of the National Syndicalist Offensive”). It even had an eyesore of an acronym: FET y de las JONS.

Let’s hope that Al Qaeda will settle on something equally catchy.

## ShotSpotter expands to Midwest

Source: <http://www.homelandsecuritynewswire.com/srlet20111227-shotspotter-expands-to-midwest>



Three cities in the Midwest recently announced plans to install gun-shot detecting systems.

ShotSpotter, manufactured by SST Inc., has enabled law enforcement agencies in more than sixty cities across the country to know exactly when a shot is fired, where it came from, and how many.

Most recently Flint, Michigan, Youngstown, Ohio, and Omaha, Nebraska, were added to the company’s growing list of clients.

The Youngstown Police Department has chosen to take a public approach, openly touting the technology with signs that read, “If You Fire a Gun, We Will Find You.” Meanwhile in





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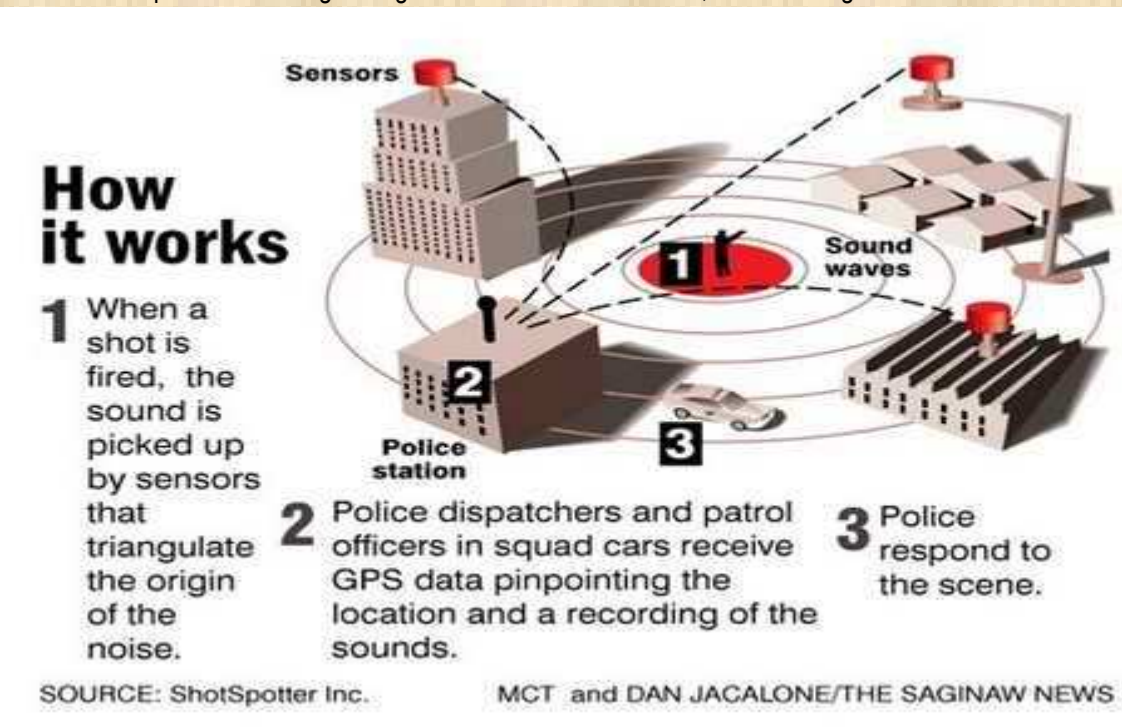
Omaha, the police department is still testing its system with live-firing.

Using sensors fixed to buildings and poles along with GPS technology, ShotSpotter can automatically triangulate the source of gunshots. The software is even capable of identifying whether a shooter is stationary or moving and if so in what direction and speed. It is also capable of distinguishing between

multiple calibers and firearms as well as explosions.

The company is at work on a wearable gunshot detection system built into a vest that includes acoustic sensors, integrated GPS, and a display.

Other innovations include the incorporation of surveillance video so when gunshots are detected, video footage can also be recorded



to help identify a potential suspect.

## StressVest adds physical consequences to training

Source: <http://www.policeone.com/police-trainers/articles/4878327-StressVest-adds-realism-to-force-on-force-training/>



To give training scenarios added realism, StressVest Inc. has developed a vest which provides physical consequences to an exercise without endangering participants.

The StressVest, made from the same manufacturers of the ShockKnife, is a vest worn over everyday clothes that contains laser-sensitive panels on the front and back of it. When the vest is hit by a laser beam from an opponent's firearm, the vest will emit a brief but painful shock. The amount of shock can be adjusted or even calibrated so that it will not trigger unless it is hit multiple times.

In addition, accessory panels



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can be added so that a wearer's arms will also feel the same sensation.

The triggering lasers originate from bullet-sized emitters that can be placed into real pistols or shotguns equipped with a special kit.

The concept for the StressVest comes as an extension of the ShockKnife, which aims to add negative reinforcement to training scenarios. In

most practice situations, rubber knives are used, but these have no consequences. With the ShockKnife, individuals who come into contact with the knife's edge will experience a harmless but painful high voltage shock, providing a realistic and immediate consequence. The basic model of the StressVest costs roughly \$2,000.

### Why Is There No Honest Discourse About Terrorism's Roots?

Source: [http://www.hyscience.com/archives/2007/12/why\\_is\\_their\\_no.php](http://www.hyscience.com/archives/2007/12/why_is_their_no.php)

My suggestion for today's must-read is Frank Salvato's piece in the Hawaii Reporter in which he charges the *politically correct, agenda-driven, sensationalistic, emotionally opportunistic, one-sided and uneducated, mainstream media* with having commandeered the role of arbiter of what is right and what is wrong, and what is appropriate for our consumption and what is not. He writes that the mainstream media has come to dictate, in totalitarian fashion, the parameters of any public conversation with regard to the most important issue of the day, the survival of our nation (*Thanks to Harry Owens for the tip*):

We hear a lot about the subject of terrorism today. This has been the case for mainstream America -- and the world -- since the horrific attacks of September 11th, 2001. Each night on the news, as if by the networks' design, there are the obligatory stories about a car bombing or a suicide attack, perhaps a fifteen second shot of the aftermath, a condescending, concerned look from the anchor and then a commercial. "We'll be right back with another story about Britney Spears' crotch, right after this!" That the single biggest threat to our nation has become B-Roll news program filler should disgust each and every one of us. Then, each and every one of us is to blame that it has come to this.

Try to think back to the last time you saw the images of September 11th on television or in the mainstream media newspapers and

magazines? Chances are it was either directly after the attacks or during a memorial segment commemorating the anniversary of those

# RADICAL ISLAM IS NOT A THREAT? TELL THAT TO...



## SEE WHAT THEY TELL YOU. YOU ARE NEXT.

NOW IS THE TIME TO TAKE ACTION. **VICTORY**  
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attacks. The truth is that the mainstream media removed the images of September 11th from our sight -- the images of death and destruction, the murder of thousands of innocents, the people



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who chose to leap to their deaths rather than burn alive -- because they deemed the images "too disturbing" for us to see.

Try to remember the last time you heard an ingenuous, learned, intelligent discussion about the root causes of Islamist terrorism on a news program or a news issues television show. Most likely it was directly after 9/11. The overwhelming majority of inspection done on the issue today centers on the treatment -- or perceived mistreatment - of radical Islamofascists caught on the field of battle or those who were apprehended for being implicated in plots to slaughter innocents both here in the United States and abroad. Then, of course, we have the pseudo-intellectual network talking heads and anti-war zealots who insist that it is the radical Islamist, caught with AK-47 in hand, who is the victim of the oppression that America has to offer. It couldn't possibly be the person pulling the trigger or detonating the suicide vest is to blame. America's foreign policy "made them do it."

The fact of the matter is this: The politically correct mainstream media; agenda-driven, sensationalistic, emotionally opportunistic, one-sided and uneducated, has assumed, nay commandeered, the role of arbiter of what is right and what is wrong. They have crowned themselves "deciders" of what is appropriate for our consumption and what is not. They have come to dictate, in totalitarian fashion, the parameters of any public conversation with regard to the most important issue of the day, the survival of our nation.

Proof of this can be found in the absence of any pictures or footage of the 9/11 attacks on news broadcasts. It can be found in their grotesque and politically correct reluctance to even speak the words "Islam" and "terrorism" in the same sentence. It can be found in their refusal to acknowledge that almost 100% of the legitimately defined terrorist acts are perpetrated at the hands of Wahhabist terrorists - Islamist radicals, Islamist fundamentalists -- dedicated to the demise of Western Civilization and the establishment of a global Caliphate.

It can be found in the fact that an overwhelming majority of Americans and Westerners can't even explain the difference between the Sunni and Shi'ite sects of Islam.

In his 2003 testimony before the Senate Judiciary Committee's Subcommittee on Terrorism, Technology and Homeland Security,

The Institute of World Politics' Dr. Michael Waller stated:

"The testimony of the Federal Bureau of Investigation (FBI) before this subcommittee on 26 June of this year is a case in point, where the witness failed even to discuss the subject on which he was requested to testify, which was on growing Wahhabi influence in the United States. The FBI Director himself has a splendid staff of speechwriters who painstakingly avoid using the words 'Islam' and 'terrorist' in the same sentence. Such dissembling does a disservice to the American public and arguably has harmed efforts to protect the country from terrorism.

"Part of the trepidation against honestly discussing the issue is the atmosphere of fear and intimidation surrounding part of the discourse. Oftentimes as soon as a non-Muslim notes that nearly 100 percent rate of terrorist attacks were perpetrated in recent years by those who call themselves Muslim, certain self-proclaimed Muslim 'leaders' in the United States take to the airwaves, the press and the Internet to denounce the critic as being 'racist' or 'bigoted.' Some of their non-Muslim friends have done the same, creating a chilling effect on open discussion, leading to poor public understanding of the conflict at hand."

We see in this instance that suspicious and most likely nefarious forces from within the Islamofascist community work in parallel with the American Fourth Estate to quell honest and open dialogue and debate on the root causes of Islamofascist aggression.

The Council on American-Islamic Relations (CAIR), an unindicted coconspirator in the Holy Land Foundation terrorism financing federal court case, has been cited by most every terrorism and counterterrorism expert and analyst as having links to Hamas. Several of their high-ranking officials have been found to have had ties to terrorist organizations. Yet, incredibly, in the face of this knowledge, the FBI and other governmental agencies continue to engage CAIR as a credible civil rights group, going as far as to enlist their "help" in the training of government personnel on the issue of tolerance toward the Islamic community.

The mainstream media and organizations like CAIR are just two obstructionist entities regarding the open and honest discussion of the causes of radical Islamist terrorism, Islamofascist aggression. Their motives are



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ideologically driven. The mainstream media has an embedded progressive-liberal agenda -- an anti-American bias, as it were -- that has been documented in research done by the Pew Public Policy Research Center. Organizations like CAIR have a vested interest in seeing the radical and unyielding tenets of Islam prevail over American doctrine as mandated by the US Constitution.

As we are reminded by David Kupelian's commentary at WNT in November of this year, "The real secret to defeating radical Islam," we've been down this road before: "During the 1960s, the antiwar movement,

*driven by profoundly anti-American groups - whose efforts were legitimized and multiplied by the news media - ultimately caused America to lose its courage and lose the war. What do you think? Is the same thing happening now? And **isn't that exactly what our Islamo-fascist enemies would love most?**"*

The answer to David's question, of course, is that losing our courage and allowing the media to aid our enemy - radical Islam - will cause us to lose this war. We have a choice, but we don't have a lot of time to waste.

## Al-Qaida chiefs quit Pakistan for Africa

Source: [http://www.upi.com/Top\\_News/Special/2011/12/27/Al-Qaida-chiefs-quit-Pakistan-for-Africa/UPI-31911325007543/](http://www.upi.com/Top_News/Special/2011/12/27/Al-Qaida-chiefs-quit-Pakistan-for-Africa/UPI-31911325007543/)

Senior British officials say al-Qaida's core leadership in Pakistan has begun moving to North Africa, in part to escape heavy losses caused by U.S. drone attacks that are concentrating on the jihadist high command, a British newspaper says.

The Guardian quoted the officials as saying that a "last push" in 2012 is likely to destroy al-Qaida's surviving leadership cadre in the tribal badlands of northern Pakistan and open "a new phase in the battle against Islamic terrorism."

U.S. Defense Secretary Leon Panetta said during a Dec. 13 visit to a U.S. counter-terrorism base in Djibouti, a former French colony in the Horn of Africa, that the focus of American efforts to crush al-Qaida is shifting to Africa and the Arabian Peninsula after the offensive against the jihadists in Pakistan.

U.S. forces and intelligence services will "track these guys wherever they go and make sure they have no place to hide," Panetta declared.

Earlier in December, counter-terrorism experts in London warned that al-Qaida's wing in North Africa -- al-Qaida in the Islamic Maghreb -- was working to turn the semi-arid Sahel region that spans northern Africa from the Atlantic Ocean to the Red Sea into "a new Somalia."

The Sahel runs from Mauritania in northwest Africa across Mali, Burkina Faso, southern Algeria, Niger, northern Nigeria, Chad, South Sudan, northern Ethiopia to Eritrea in the east.

Jerome Spinoza, head of the French Defense Ministry's Africa bureau, which is actively involved in combating AQIM, told a terrorism seminar in London the political upheaval

across North Africa since last January is aiding AQIM.

This, he cautioned, was allowing AQIM to spread its influence south of Algeria, raising the prospect of transcontinental hook-ups with the Boko Haram Islamist militants in northern Nigeria and the al-Shabaab group in lawless Somalia south of Eritrea.

Some say this poses a potential threat to southern Europe.

Jason Burke, The Guardian's South Asia correspondent and a expert on al-Qaida, reported British intelligence says al-Qaida Central has lost so many top operatives "only a handful of key players" are still alive in Pakistan.

These include Ayman al-Zawahiri, a veteran Egyptian jihadist who was Osama bin Laden's longtime deputy until the al-Qaida founder was killed in a U.S. raid in Pakistan May 2.

Zawahiri was chosen to succeed bin Laden several weeks later. Among his senior lieutenants are Said al-Adel, another Egyptian and former Special Forces officer.

Another important figure is Abu Yahya al-Libi, a Libyan ideologue and leading strategist who was one of several top al-Qaida operatives escaped from the U.S. prison at Bagram Air Base in Afghanistan July 10, 2005.

He was a senior member of the Libyan Fighting Group that fought against Moammar Gadhafi.

Zawahiri is leader of Egypt's Islamic Jihad, which assassinated Egyptian President Anwar Sadat in October



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1980 for signing a landmark peace treaty with Israel.

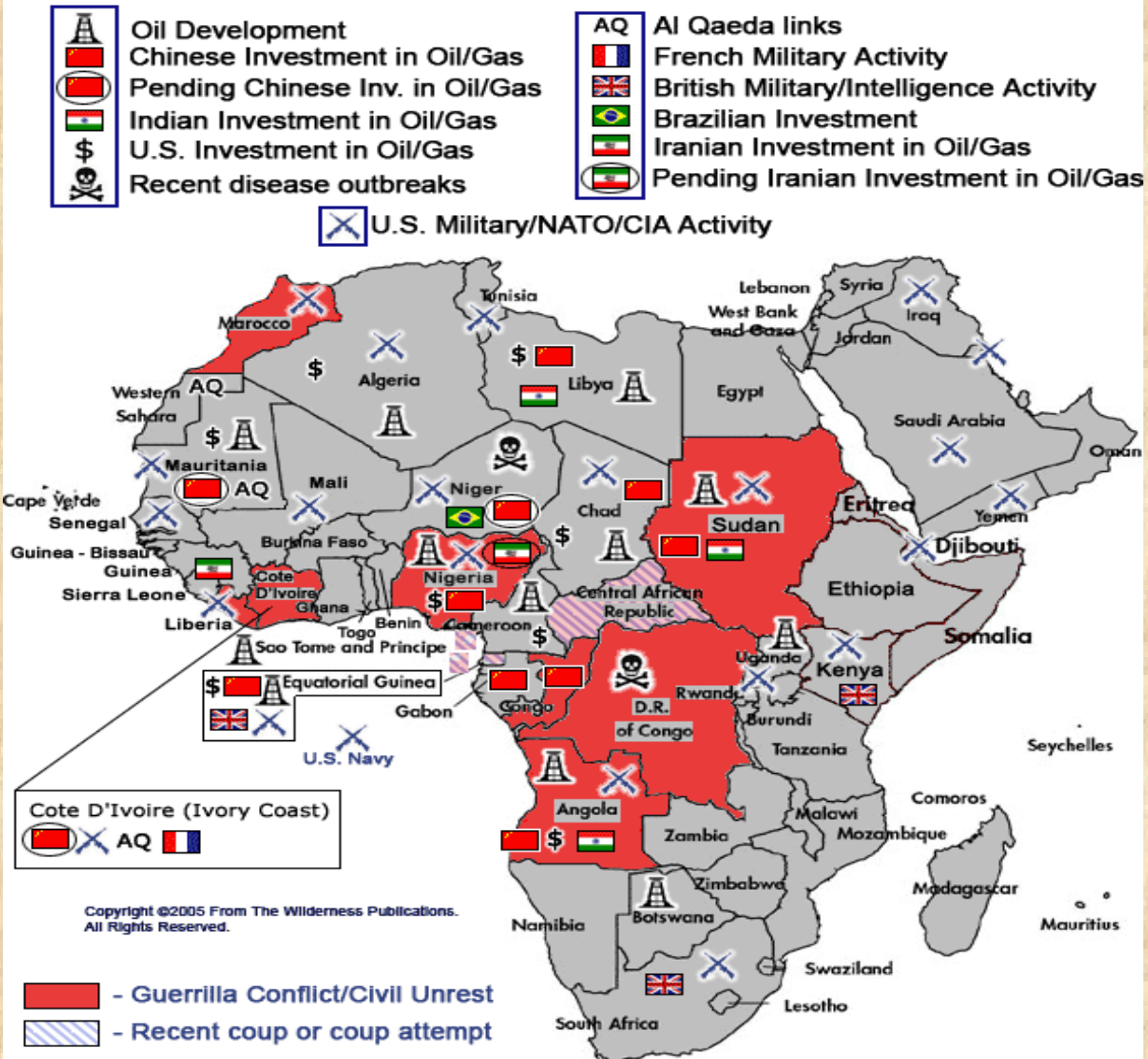
The presence of such important North Africans in al-Qaida's core leadership could indicate their influence in the reported drift from Pakistan back into the Arab world which spawned al-Qaida in the 1990s.

The emergence of Islamist organizations, such as the powerful Muslim Brotherhood in Egypt,

"It is unclear whether the moves from West Asia to North Africa are prompted by a desire for greater security -- which seems unlikely as NATO forces begin to withdraw from Afghanistan -- or part of a strategic attempt to exploit the aftermath of the Arab Spring," Burke observed.

"They may even be trying to shift the center of gravity of al-Qaida's effort back to the

## Africa at the Boiling Point



-Trade between China and Africa up 50% in 2004 (IAGS - Energy Security Nov. 15, 2004)  
 -Sir Mark Thatcher pled guilty to involvement in coup attempt in Equatorial Guinea on Jan 11th  
 -"OIL IS THE ONLY U.S. INTEREST IN AFRICA" - The Economist

and some Salafist groups that are ideologically linked to al-Qaida in North Africa following the downfall of Arab leaders there in 2011, could be an added spur to the reported drift from Pakistan.

homelands of the vast majority of its members."  
 If there is a jihadist redeployment toward North Africa, it marks a strategic shift that could seriously



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impact the burgeoning trend toward democracy in the region where the Arab dictators that al-Qaida sought to topple have been laid low by others.

Libya, in particular, where Salfist groups and

topple Gadhafi's regime, is a potential trouble spot.

Islamist militias are heavily armed. Abdul Hakim Belhaj, leader of the LFG who was tortured in Gadhafi's prisons, is now the military



remnants of the Libyan Fighting Group helped

commander in Tripoli under the new regime.

## Smoke Screening

By Charles C. Mann

Source: <http://www.vanityfair.com/culture/features/2011/12/tsa-insanity-201112>

Not until I walked with Bruce Schneier toward the mass of people unloading their laptops did it occur to me that it might not be possible for us to hang around unnoticed near Reagan National Airport's security line. Much as upscale restaurants hang mug shots of local food writers in their kitchens, I realized, the Transportation Security Administration might post photographs of Schneier, a 48-year-old cryptographer and security technologist who is

probably its most relentless critic. In addition to writing books and articles, Schneier has a popular blog; a recent search for "TSA" in its archives elicited about 2,000 results, the vast majority of which refer to some aspect of the agency that he finds to be ineffective, invasive, incompetent, inexcusably costly, or all four.

As we came by the checkpoint line, Schneier described one of these



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aspects: the ease with which people can pass through airport security with fake boarding passes. First, scan an old boarding pass, he said—more loudly than necessary, it seemed to me. Alter it with Photoshop, then print the result with a laser printer. In his hand was an example, complete with the little squiggle the T.S.A. agent had drawn on it to indicate that it had been checked. “Feeling safer?” he asked.

Ten years ago, 19 men armed with utility knives hijacked four airplanes and within a few hours killed nearly 3,000 people. At a stroke, Americans were thrust into a menacing new world. “They are coming after us,” C.I.A. director George Tenet said of al-Qaeda. “They intend to strike this homeland again, and we better get about the business of putting the right structure in place as fast as we can.”

The United States tried to do just that. Federal and state governments embarked on a nationwide safety upgrade. Checkpoints proliferated in airports, train stations, and office buildings. A digital panopticon of radiation scanners, chemical sensors, and closed-circuit television cameras audited the movements of shipping containers, airborne chemicals, and ordinary Americans. None of this was or will be cheap. Since 9/11, the U.S. has spent more than \$1.1 trillion on homeland security.

To a large number of security analysts, this expenditure makes no sense. The vast cost is not worth the infinitesimal benefit. Not only has the actual threat from terror been exaggerated, they say, but the great bulk of the post-9/11 measures to contain it are little more than what Schneier mocks as “security theater”: actions that accomplish nothing but are designed to make the government look like it is on the job. In fact, the continuing expenditure on security may actually have made the United States less safe.

The first time I met Schneier, a few months after 9/11, he wanted to bet me a very expensive dinner that the United States would not be hit by a major terrorist attack in the next 10 years. We were in Washington, D.C., visiting one of the offices of Counterpane Internet Security, the company he had co-founded in 1999. (BT, the former British Telecom, bought Counterpane seven years later; officially, Schneier is now BT’s chief security technology officer.) The bet seemed

foolhardy to me. Defense Secretary Donald Rumsfeld had just told *The Washington Times* that al-Qaeda was dispersing its killers all over the world.

From an airplane-hijacking point of view, Schneier said, al-Qaeda had used up its luck.



Passengers on the first three 9/11 flights didn’t resist their captors, because in the past the typical consequence of a plane seizure had been “a week in Havana.” When the people on the fourth hijacked plane learned by cell phone that the previous flights had been turned into airborne bombs, they attacked their attackers. The hijackers were forced to crash Flight 93 into a field. “No big plane will ever be taken that way again, because the passengers will fight back,” Schneier said. Events have borne him out. The instigators of the two most serious post-9/11 incidents involving airplanes—the “shoe bomber” in 2001 and the “underwear bomber” in 2009, both of whom managed to get onto an airplane with explosives—were subdued by angry passengers.

Schneier’s sanguine views had little resonance at a time when the fall of the twin towers was being replayed nightly on the news. Two months after 9/11, the Bush administration created the Transportation Security Agency, ordering it to hire and train enough security officers to staff the nation’s 450 airports within a year. Six months after that, the government vastly expanded the federal sky-marshal program, sending thousands of armed lawmen to ride planes undercover. Meanwhile, the T.S.A. steadily ratcheted up the existing baggage-screening program, banning cigarette



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lighters from carry-on bags, then all liquids (even, briefly, breast milk from some nursing mothers). Signs were put up in airports warning passengers about specifically prohibited items: snow globes, printer cartridges. A color-coded alert system was devised; the nation was placed on “orange alert” for five consecutive years. Washington assembled a list of potential terror targets that soon swelled to 80,000 places, including local libraries and miniature-golf courses. Accompanying the target list was a watch list of potential suspects that had grown to 1.1 million names by 2008, the most recent date for which figures are available. Last year, the Department of Homeland Security, which absorbed the T.S.A. in 2003, began deploying full-body scanners, which peer through clothing to produce nearly nude images of air passengers.

Bruce Schneier’s exasperation is informed by his job-related need to spend a lot of time in Airportland. He has 10 million frequent-flier miles and takes about 170 flights a year; his average speed, he has calculated, is 32 miles and hour. “The only useful airport security measures since 9/11,” he says, “were locking and reinforcing the cockpit doors, so terrorists can’t break in, positive baggage matching”—ensuring that people can’t put luggage on planes, and then not board them —“and teaching the passengers to fight back. The rest is security theater.”

Remember the fake boarding pass that was in Schneier’s hand? Actually, it was mine. I had flown to meet Schneier at Reagan National Airport because I wanted to view the security there through his eyes. He landed on a Delta flight in the next terminal over. To reach him, I would have to pass through security. The day before, I had downloaded an image of a boarding pass from the Delta Web site, copied and pasted the letters with Photoshop, and printed the results with a laser printer. I am not a photo-doctoring expert, so the work took me nearly an hour. The T.S.A. agent waved me through without a word. A few minutes later, Schneier deplaned, compact and lithe, in a purple shirt and with a floppy cap drooping over a graying ponytail.

The boarding-pass problem is hardly the only problem with the checkpoints. Taking off your shoes is next to useless. “It’s like saying, Last time the terrorists wore red shirts, so now we’re going to ban red shirts,” Schneier says. If the T.S.A. focuses on shoes, terrorists will put their

explosives elsewhere. “Focusing on specific threats like shoe bombs or snow-globe bombs simply induces the bad guys to do something else. You end up spending a lot on the screening and you haven’t reduced the total threat.”

As I waited at security with my fake boarding pass, a T.S.A. agent had darted out and swabbed my hands with a damp, chemically impregnated cloth: a test for explosives. Schneier said, “Apparently the idea is that al-Qaeda has never heard of latex gloves and wiping down with alcohol.” The uselessness of the swab, in his view, exemplifies why Americans should dismiss the T.S.A.’s frequent claim that it relies on “multiple levels” of security. For the extra levels of protection to be useful, each would have to test some factor that is independent of the others. But anyone with the intelligence and savvy to use a laser printer to forge a boarding pass can also pick up a stash of latex gloves to wear while making a bomb. From the standpoint of security, Schneier said, examining boarding passes and swabbing hands are tantamount to performing the same test twice because the person you miss with one test is the same person you’ll miss with the other.

After a public outcry, T.S.A. officers began waving through medical supplies that happen to be liquid, including bottles of saline solution. “You fill one of them up with liquid explosive,” Schneier said, “then get a shrink-wrap gun and seal it. The T.S.A. doesn’t open shrink-wrapped packages.” I asked Schneier if he thought terrorists would in fact try this approach. Not really, he said. Quite likely, they wouldn’t go through the checkpoint at all. The security bottlenecks are regularly bypassed by large numbers of people—airport workers, concession-stand employees, airline personnel, and T.S.A. agents themselves (though in 2008 the T.S.A. launched an employee-screening pilot study at seven airports). “Almost all of those jobs are crappy, low-paid jobs,” Schneier says. “They have high turnover. If you’re a serious plotter, don’t you think you could get one of those jobs?”

The full-body-scanner program—some 1,800 scanners operating in every airport in the country—was launched in response to the “underwear bomber” incident on Christmas Day in 2009, when a Nigerian Muslim hid the plastic explosive petn in his briefs and tried





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to detonate it on a flight from Amsterdam to Detroit. It has an annual price tag of \$1.2 billion. The scanners cannot detect petn directly; instead they look for suspicious bulges under clothing. Because petn is a Silly Putty-like material, it can be fashioned into a thin pancake. Taped flat to the stomach, the pancake is invisible to scanning machines. Alternatively, attackers could stick gum-size wads of the explosive in their mouths, then go through security enough times to accumulate the desired amount.

Staffing the airport checkpoints, at least in theory, are “behavioral detection officers,” supposedly trained in reading the “facial microexpressions” that give away terrorists. It is possible that they are effective, Schneier says—nobody knows exactly what they do. But U.S. airlines carried approximately 700 million passengers in 2010. In the last 10 years, there have been 20 known full-fledged al-Qaeda operatives who flew on U.S. planes (the 9/11 hijackers and the underwear bomber, who was given explosives by a Yemeni al-Qaeda affiliate). Picking the right 20 out of 700 million is simply not possible, Schneier says.

After the airport checkpoint, an additional layer of security is provided, in theory, by air marshals. At an annual cost of about \$1.2 billion, as many as 4,000 plainclothes police ride the nation’s airways—usually in first class, so that they can monitor the cockpit. John Mueller, co-author of *Terror, Security, and Money*, a great book from which I drew much information for this article, says it’s a horrible job. “You sit there and fly and you can’t even drink or listen to music, because you can’t have headphones on. You have to stay awake. You are basically just sitting there, day after day.” Unsurprisingly, there’s a lot of turnover—“you’re constantly training people, which is expensive.” Worse, the program has had no measurable benefit. Air marshals have not saved a single life, although one of them did shoot a deranged passenger a few years ago. Has the nation simply wasted a trillion dollars protecting itself against terror? Mostly, but perhaps not entirely. “Most of the time we assess risk through gut feelings,” says Paul Slovic, a psychology professor at the University of Oregon who is also the president of Decision Research, a nonprofit R&D organization. “We’re not robots just looking at the numbers.” Confronted with a risk, people ask questions: Is this a risk that I benefit from taking, as when I

get in a car? Is it forced on me by someone else, as when I am exposed to radiation? Are the potential consequences catastrophic? Is the impact immediate and observable, or will I not know the consequences until much later, as with cancer? Such questions, Slovic says, “reflect values that are sometimes left out of the experts’ calculations.”

Security theater, from this perspective, is an attempt to convey a message: “We are doing everything possible to protect you.” When 9/11 shattered the public’s confidence in flying, Slovic says, the handful of anti-terror measures that actually work—hardening the cockpit door, positive baggage matching, more-effective intelligence—would not have addressed the public’s dread, because the measures can’t really be seen. Relying on them would have been the equivalent of saying, “Have confidence in Uncle Sam,” when the problem was the very loss of confidence. So a certain amount of theater made sense. Over time, though, the value of the message changes. At first the policeman in the train station reassures you. Later, the uniform sends a message: train travel is dangerous. “The show gets less effective, and sometimes it becomes counterproductive.”

Terrorists will try to hit the United States again, Schneier says. One has to assume this. Terrorists can so easily switch from target to target and weapon to weapon that focusing on preventing any one type of attack is foolish. Even if the T.S.A. were somehow to make airports impregnable, this would simply divert terrorists to other, less heavily defended targets—shopping malls, movie theaters, churches, stadiums, museums. The terrorist’s goal isn’t to attack an airplane specifically; it’s to sow terror generally. “You spend billions of dollars on the airports and force the terrorists to spend an extra \$30 on gas to drive to a hotel or casino and attack it,” Schneier says. “Congratulations!”

What the government should be doing is focusing on the terrorists when they are planning their plots. “That’s how the British caught the liquid bombers,” Schneier says. “They never got anywhere near the plane. That’s what you want—not catching them at the last minute as they try to board the flight.”

To walk through an airport with Bruce Schneier is to see how much change a trillion dollars can wreak. So much inconvenience for so little benefit at



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such a staggering cost. And directed against a threat that, by any objective standard, is quite modest. Since 9/11, Islamic terrorists have killed just 17 people on American soil, all but four of them victims of an army major turned fanatic who shot fellow soldiers in a rampage at Fort Hood. (The other four were killed by lone-wolf assassins.) During that same period, 200 times as many Americans drowned in their bathtubs. Still more were killed by driving their cars into deer. The best memorial to the victims of 9/11, in Schneier's view, would be to forget

most of the "lessons" of 9/11. "It's infuriating," he said, waving my fraudulent boarding pass to indicate the mass of waiting passengers, the humming X-ray machines, the piles of unloaded computers and cell phones on the conveyor belts, the uniformed T.S.A. officers instructing people to remove their shoes and take loose change from their pockets. "We're spending billions upon billions of dollars doing this—and it is almost entirely pointless. Not only is it not done right, but even if it was done right it would be the wrong thing to do."

### Al-Qaeda and the Rise of China: Jihadi Geopolitics

**Author:** Brian Fishman

*Source:* <http://www.cfr.org/china/washington-quarterly-al-qaeda-rise-china-jihadi-geopolitics/p26791>

*Brian Fishman explains why Al-Qaeda affiliated jihadi thinkers are concerned with China's rise, as the country becomes increasingly tied to regimes they believe are fundamentally corrupt.*

Prognosticating about China's economic, political, and military rise has become a favorite conversation for Western politicians and policy wonks. But Western observers are not the only strategists debating the impact of increased Chinese power. A parallel conversation has been taking place among al-Qaeda affiliated jihadi thinkers for much of the last decade. That discussion ranges from debate about how best to support rebellion among Muslim Uyghurs in China's Xinjiang province to more abstract disagreements over how a transnational militant network such as al-Qaeda should adapt when a traditional state upends the U.S.-led system that has been its primary boogeyman for nearly 15 years.

### Rail Security and the Terrorist Threat

**By Eben Kaplan**

#### Introduction

High profile terrorist attacks on rail systems in Madrid, London, and Mumbai provide troubling illustration to persistent warnings that the U.S. public transportation system is a vulnerable target for terrorists. But passenger rail is not the only, and perhaps not even the gravest concern. Much of the 160,000 miles of railroad track in the United States transports freight, including highly toxic chemicals. These shipments often have minimal security, even though they pass through populated areas, endangering thousands of lives.

#### Passenger Rail

Each year Americans make more than 3.5 billion trips on intercity trains, commuter rails, and subways. On a given day in New York City, more people pass through Penn Station than all three major airports servicing the region combined. The abundance of

passengers, combined with the need for easy access, makes securing passenger railways a daunting task. Absolute security can never be achieved, and experts caution against extreme security measures, which they say would disrupt how transportation systems function while offering no guarantee against attack.

In an attempt to balance security and accessibility, rail companies have taken measured precautions to help prevent attacks. These include random searches of passengers and baggage, increased presence of security officers and bomb-sniffing dogs, increased video surveillance, removal or hardening of trash cans so they cannot hide bombs, and encouraging passengers to report suspicious activity. But though these measures preserve passengers' easy access to trains, they would be unlikely to foil a determined terrorist cell.



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In light of this inherent vulnerability, many rail companies have sought to bolster their ability to react to emergencies in order to minimize the impact of an attack. This includes emergency planning, hiring and training emergency personnel, and purchasing emergency equipment such as radios. By mitigating the potential impact of a terrorist attack, experts say, rail companies could discourage some terrorists from targeting them.

### Improving Passenger Rail Security

Though security professionals see trains as some of the likeliest terrorist targets, P.J. Crowley, a homeland security expert at the Center for American Progress, explains: “On passenger rail, there’s a limit to what can be done.” Some experts believe existing precautions on most railroads already approach that limit, but Crowley suggests increasing police presence in stations and on trains could further diminish the risk of attack. The problem, he says, is that local governments usually don’t have the money to sustain such a force.

In lieu of additional manpower, security experts suggest an element of randomness could help thwart terrorist plots by presenting a dynamic target. Frequent, unpredictable police presence and random searches—like those implemented on the New York City subway following the 2005 London bombings—have the potential to deter or disrupt an attack. Random searches avoid the civil liberties issues raised by profiling based on race, gender, or age. They also ensure that every passenger has a chance of being searched, dissuading notions that, for instance, female suicide bombers are less prone to security screening. Some in Congress have become frustrated by the financial roadblocks in the way of increased security measures. House Homeland Security Committee Chairman Bennie Thompson (D-MS) has decried a system that sees nine dollars spent on aviation security for every penny spent on shoring up railways, but many people disagree. “A commercial airliner has the capacity to kill 3,000 people,” Homeland Security Secretary Michael Chertoff once told reporters, “A bomb in a subway car may kill thirty people. When you start to think about your priorities, you’re going to think about

making sure you don’t have a catastrophic thing first.”

Some security analysts argue the best way to ensure the safety of American railways, as well as the myriad other easy targets in the country, is to focus efforts on counterterrorism investigations and intelligence operations. “The best way to prevent a terrorist attack is to stop terrorists before they can strike,” writes James Jay Carafano in a recent Heritage Foundation memo. Indeed, perhaps the most serious plot against an American passenger train—a plot to bomb the Herald Square subway station—was foiled by a yearlong undercover operation by the New York Police Department.

### Freight Rail

Many of the tracks that carry passenger trains run parallel to those carrying freight shipments throughout the United States, meaning rail cargoes often travel along the same heavily



populated corridors. Much of the freight presents little danger to people living near the tracks, but some does—particularly certain industrial chemicals. The deadliest of these chemicals are almost identical to those used as weapons on the battlefields of World War I, and in 2005 former White House Deputy Homeland Security Adviser Richard Falkenrath told the Senate these chemicals pose “the single greatest danger of a potential terrorist attack in our country today.”

Hazardous chemicals travel on railcars in ninety-ton pressurized tanks. What little security exists along their route tends to be lax, and at



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times tanks sit unmonitored in rail yards for days at a time. Should one of these tanks rupture—either from a terrorist attack or an accident—the results could be catastrophic. Fred Millar, a rail security lobbyist and former member of the Washington, D.C. local Emergency Planning Committee, likens the shipment of chemicals through America's biggest cities to “pre-positioning weapons of mass destruction.”

Dr. Jay Boris of the Naval Research Laboratory in Washington, D.C., told the City Council that the worst-case scenario for that city could result in up to a hundred thousand fatalities. A video from his laboratory simulates the spread of a toxic gas cloud over three major U.S. cities. A more conservative 2004 Homeland Security Council report estimated that a ruptured chlorine gas tank in a densely populated area could kill as many as 17,500

conforms to federal regulations for transporting hazardous materials. Those regulations require rail carriers to implement security plans, including special training for their employees. Carl Prine, an investigative reporter for the *Pittsburgh Tribune-Review*, says FRA audits since 2003 show many companies have yet to conform. In researching his own report, Prine gained unfettered access to rail cars holding toxic chemicals in several U.S. cities.

The Department of Homeland Security (DHS) and the Department of Transportation (DOT) offer a list of voluntary security practices for hazmat carriers, including criminal background checks for employees, regular training drills, and designating a liaison to government emergency response agencies. Many believe these measures should be mandatory; Senator Frank Lautenberg (D-NJ) described the federal government's approach to the issue as merely

“window dressing” (*WashPost*). The rail industry says it implemented most of these measures before the government issued its recommendations. “We have the best safety record of any transportation method in the United States,” Wilson says. “[After 9/11,] we identified our vulnerabilities and made significant changes to our operations.”

One proposed measure championed by Fred Millar and others calls for rerouting hazardous rail cargo so it bypasses densely populated areas. In 2005, the District of

Columbia became the first of several cities to enact legislation banning rail carriers from transporting hazardous chemicals through the city's center. That ban has yet to take effect due to an unresolved legal appeal by CSX Transportation, the primary rail carrier in Washington. Rail companies argue that rerouting would prove costly, though experts note the cargoes in question account for less than 1 percent of rail freight. However, major cities often produce or consume these chemicals, in which case rerouting is not an option.

Though rerouting may be appropriate in some circumstances, Stephen E. Flynn, the Council on Foreign



people and injure an additional 10,000. In addition to the dead and wounded, tens of thousands would have to evacuate, causing widespread panic. Nancy L. Wilson, the Association of American Railroads' vice president for security, calls Boris' projection “pure fearmongering” and suggests the Homeland Security Council model would require perfect conditions. Wilson, who speaks for the rail industry, says a more plausible scenario might result in hundreds dead, not thousands.

### Securing Rail Freight

The Federal Railroad Administration (FRA) has 415 inspectors who ensure that rail freight



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Relations Jeanne J. Kirkpatrick senior fellow for national security studies, explains, "When you do start diverting, you are talking about delays and increased costs. Some of that's worth it, but what's important to remember is that some of these chemicals are very important to our daily lives." For example, oil refineries and water treatment plants use dangerous chemicals to produce the gasoline and drinking water Americans rely on.

Flynn says rail companies need to improve their communication with local officials in places through which they ship dangerous chemicals. "Fire chiefs don't want to show up and have to guess what they're confronting." This is among the voluntary measures recommended by DHS and DOT, but Flynn says the rail industry has resisted because effectively sharing this information can prove costly. Not so, argues Wilson. The rail industry provides lists of the top twenty five most dangerous chemicals that travel through a given community over the course of a year, she says. Companies could easily provide car-by-car information on a daily basis, but local officials have no interest because they fear becoming overwhelmed with information.

Wilson says rail carriers have taken other measures to ensure local officials have adequate information. "The railroad industry, often working with chemical companies, trains more than twenty thousand first responders [about chemical hazards]," she says. The rail industry also has its own intelligence center,

which examines classified government reports for potential threats to railways, and can quickly communicate with the appropriate rail workers when danger is imminent.

### Inherently Safer Technologies

Experts agree that any solution to rail freight security must address the hazardous chemicals themselves. "In my thinking," Crowley says, "freight rail, for all intents and purposes, is an element of chemical security. You can't separate the two." Reducing the need for some of the most dangerous chemicals reduces the risk of their release, either by accident or sabotage. Some chemical companies have begun opting for less hazardous alternative chemicals: At a nominal difference in cost, water treatment facilities can use liquid bleach in place of chlorine and refineries can replace hydrofluoric acid with the less lethal sulfuric acid. Inherently safer technologies (ISTs), as they are called, play a major role in efforts to secure U.S. chemical facilities as well.

Many companies and municipalities make these changes on their own, but the federal government has done little to encourage them. "These are not railroad issues," Wilson says, "The government needs to step up to the plate." Crowley says requiring implementation of ISTs would not work, but "government can use carrots and sticks to force the private sector to adapt."

## Article On Iranian Website: This Is How We'll Close Strait of Hormuz

Source: <http://www.memri.org/report/en/0/0/0/0/0/5956.htm>

*In response to threats by Western countries to impose oil sanctions on Iran, the Iranian website Mashreq News, which is close to Iranian military circles, posted an article on December 15, 2011 outlining military measures that could be taken by Tehran to close the Strait of Hormuz should the regime choose to do so.*

*The article enumerated the forces and weapons that Iran could employ in such a military operation, including fast attack craft carrying anti-ship missiles; submarines; battleships; cruise and ballistic missiles; bombers carrying laser-, radar- and optically-guided missiles; helicopters; armed drones; hovercraft; and artillery.*

*It stated that despite Iranian Supreme Leader Ali Khamenei's statements that Tehran would not initiate a military confrontation but would retaliate harshly if attacked, "there is no guarantee that [Tehran] will not launch a preemptory strike on the civilian level, for instance through cyber-warfare or by means of economic pressure, including by closing the Strait of Hormuz and cutting off [this] energy lifeline for an indefinite period of time." It added, "Should additional sanctions be imposed on Iran, especially in the domain of oil export, Iran might keep [its] oil from leaving its territorial waters."*



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In a further threat, the article stated that Iran would in the future be able to attack the 480-km pipeline with a capacity of 2.5 million barrels/day<sup>[1]</sup> that the UAE is planning to build in order to bypass the Strait of Hormuz in order to neutralize Iran's ability to disrupt the world's oil supply: "As for the plan... to construct a [pipeline] from the UAE that will be an alternative in times of emergency in case the Hormuz Strait is closed, we should note... that the entire territory of the UAE is within range of Iran's missiles, [so Iran] will easily be able to undermine security at the opening of this [pipeline] using weapons to be discussed this report."

In accordance with Iranian doctrine, the article pointed out that these weapons would actually not be necessary because there would be suicide operations, and added that "the faith of the Iranian youth, and their eagerness to sacrifice their lives, will sap the enemies' courage."

Despite statements by Iranian government spokesmen, including Oil Minister Rostam Qasemi and Foreign Ministry spokesman Ramin Mehmanparast, that the closing of the strait is not currently on Iran's agenda,<sup>[2]</sup> Majlis National Security Committee member Pervez Sarouri said that the Iran would be conducting 10 days of naval maneuvers, called "Velayat 90," beginning December 24, 2011, to drill closing it.<sup>[3]</sup>



Satellite view of the Strait of Hormuz connecting the Persian Gulf to the Sea of Oman

Kayhan editor **Hossein Shariatmadari**, who is close to Khamenei, called on the regime to announce immediately that Tehran would close the strait to vessels from the U.S., Europe, Japan, or any other country participating in imposing oil sanctions on Iran.<sup>[4]</sup>

At a press conference on the subject of the Velayat 90 naval maneuvers, which commenced on December 24, Iranian Navy Commander Habibollah Sayyari said that his forces would be capable of closing the strait if asked to do so.<sup>[5]</sup>

It should be noted that Iranian officials have previously threatened to close the strait as a means of deterring Iran's neighbors and the West (see previous MEMRI reports from 2010, 2008 and 2007).<sup>[6]</sup>

The following are the main points of the Mashreq News article on closing the Strait of Hormuz.<sup>[7]</sup>

### Fast Attack Craft



The article stated that since it first introduced fast attack craft for use in the Iran-Iraq war (1980-1988), the Iranian navy has

immeasurably improved the craft's "ability to face advanced enemy combat vessels, much less cargo ships. These boats are equipped with sea radar systems; advanced electronic communication systems; sea-to-sea cruise missiles, both short-range – 25 km – and medium range; medium- and large-caliber [sic] torpedoes; and naval mines, along with traditional means of warfare – including semi-heavy machine guns, missile launchers, and shoulder-launched anti-aircraft missiles. These sea craft are capable of blocking the Strait [of Hormuz] for a



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brief or an extended period, and of facing enemy warships trying to open the route.

"In addition to their high speed and abovementioned equipment, these sea craft are highly maneuverable. Their ability to operate at night, aided by the requisite accessories, as well as in stormy weather, has been demonstrated repeatedly in recent years, in maneuvers both minor and major. Their successful record includes stopping

submarines from countries beyond the [Gulf] region that aimed to cross the Strait of Hormuz, and supporting [Iranian] submarines threatened by enemy warships in the Indian Ocean... Iran has various types of naval mines, both stationary and remote controlled. This weapon [i.e. the mines] may, if necessary, be operated by Iranian boats and submarines [located at] various points in the Strait of Hormuz and the surrounding waters."

### Submarines

The article continued: "The Iranian navy's acquisition of submarines... some 20 in number... has rendered it more powerful than the navies of the [other] countries in the region. Iran's submarine craft can use torpedoes, mines, and missiles, and can remain submerged for weeks in order to accomplish a mission. Apart from the Russian Kilo class submarines, the Nahang, Ghadir, and Fateh class submarines have been pre-fitted for the waters around Iran, especially the Persian Gulf... These submarines can remain stationary in the water and can evade various enemy radar and sonar systems..."

"The Kilo class submarines can carry 24 mines or 18 large torpedoes, while the Fateh class submarines can carry 12 torpedoes and/or eight mines. In addition, there have been reports in the international media stating that Iran has equipped the Kilo class [submarines in its fleet] with Hoot torpedoes..."

"The Ghadir class submarines can also successfully participate in the operation [to close the strait]... [These] are small submarines manned by one or several people. Known as 'wet submarines,' they are used for commando operations, laying mines, and firing torpedoes... and can operate in narrow and shallow areas."



### Warships

The article stated that "Iran has various classes of missile ships, warships, and destroyers. These marine craft are capable of launching four 'Nour' anti-ship missiles, which have a range of 120-170 km, [even] over 200 km. Additionally, these warships' 114mm and 76mm guns... can threaten various [types of] ships. [Iran's] warships can [also] threaten submarines while simultaneously operating together with the rest of the [Iranian naval] force in closing the Strait of Hormuz."

### Anti-Ship Cruise Missiles

It continued: "We divide Iran's missile force into two groups: cruise missiles and ballistic missiles. They possess a wide variety of ranges and destructive capabilities. Coastal launchers for Kowsar short-range missiles and for Nour and Ghadir missiles [with a range of some 200 km] have so far been displayed, and the Naser-1 medium-range missiles are

launched from Qare'a triple-barrel missile launchers. These launchers are independent, meaning that if they are deployed near the coast, they could detect and identify naval targets and attack them without the need for supporting systems from [Iranian] air and naval units."



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Photo: Mehr News Agency  
 Independent cruise missile launcher

"These systems can cover most of the Strait of Hormuz if deployed and camouflaged 70 to 150 km deep into Iranian territory, or even in the



Kerman province [in southeastern Iran]. The Iranian armed forces possess these systems in abundance, and they are ready for deployment."

### Ballistic Missiles

The article noted: "...Thus far, three types of anti-ship ballistic missiles have been displayed

alongside the Khaleej-e Fars missiles as a short range ballistic missile... and their



Mashregnews.ir  
 Triple-barrel launcher for Khaleej-e Fars missiles



Tondar missile

in Iran: Khaleej-e Fars, Tondar, and Sejil. Khaleej-e Fars missiles, with a 300-km range and a 650-kg warhead, are designed to destroy enemy warships. The missile can be prepared for launch in a few minutes due to its use of solid fuel and advanced guidance systems. It strikes the enemy ships from above, traveling at Mach 3, reaching [the target] in a short time and at an acute angle.

"The triple-barrel launcher for these missiles provides sufficient firepower from the first launch; it increases the operational effect of the missile, while decreasing the enemy's ability to retaliate. Based on photos of the missile, it uses an electronic guidance system, which ensures its effectiveness even against the enemy's electronic warfare. The missile's speed, angle of approach, and impact from above are effective points in its modus operandi. We can estimate that the enemy's chances of intercepting it are miniscule.

"The Tondar missile, whose range is estimated by experts to be 150-250 kilometers, operates

combined operation can significantly raise the chances of hitting the target... The [Tondar] missile can cover the Straits of Hormuz from deep inside Iranian territory. The Khaleej-e



Fars missile can cover the Western Sistan-Baluchestan area, the Kerman province area, eastern and southern Fars province, and all of the Straits of Hormuz."





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"The most terrifying of all Iranian missiles is the Sejil long range missile. It has commonly been considered merely a surface-to-surface missile, but the armed forces recently announced that it can also be used to destroy naval targets. Although not much is known about the missile's guidance and targeting systems, the missile has shown great accuracy in hitting a predetermined target. This missile, with a range of 2,000 km, can reach speeds of Mach 8 to Mach 12 (2,700-4,100 meters per second)... Its warhead weighs at least 500 kilograms, helping it to destroy the target. This missile can be used to cover regions beyond the Strait of Hormuz even if deployed on the northern Iranian coast, or at the most distant point in northwest Iran. It is a two-stage rocket powered by solid fuel, and reaches great speed at the end of the first stage [of launch]. It is difficult for the enemy to detect and track it

during the first stage, because it uses several methods to reduce its radar signature... Thanks to its high velocity, the chance of it being hit by enemy defense [systems] is even smaller than the chance that they will hit a Khaleej-e Fars missile.

"Such missiles would be launched from deep inside Iranian territory because scattering launchers over a larger area will make it difficult for the enemy to detect them, will limit the means the enemy will be able to use to destroy them, and will also allow the launchers to be relocated and re-camouflaged.

"Although the enemy is much more likely to detect lower-velocity missiles... the combination of the use of these weapons in areas both closer and farther away from the shore and the increased number of targets... can maintain their effectiveness."

### Bomber Jets

The article stated: "Iranian fighter jets can carry various types of air-to-surface missiles that can operate against naval targets, including air-to-surface missiles with optical, laser, and radar

kilometers, will become operational soon); and Russian-made KH-25 and KH-29 missiles with laser and optical guidance, which can be mounted on Su-24, Su-25, and MiG-29 jets.



guidance; Nour and Ghadir missiles adapted for aerial use; C-801K and C-802 missiles; as well as Kowsar and Naser missiles. [Iranian] Air Force jets can carry up to five such missiles.

"Additional missiles for naval targets include: limited range TV-guided Maverick missiles; Qassad-1 and Qassad-2 optically guided bombs with a range of 30-50 kilometers (Qassad-3 bombs, with a range over 100

Their range is 10km-30km, and they have medium destructive capabilities.

"In addition, KH-58 long-range anti-radar missiles, which can be mounted on Su-24 jets for attacks on enemy warships, will play an important role in closing the Strait of Hormuz.

"The array of missiles and bombs with varying ranges will assist Iran in operating remotely against enemy frigates and warships."



Shahed 285 helicopter equipped with anti-ship missile

### Helicopters

"The Shahed 285 helicopter can carry Kowsar anti-ship cruise missiles, and Mi-171 helicopters can launch Nour long range missiles, and apparently Ghadir missiles as well. These helicopters, along with Cobra attack helicopters, can threaten merchant vessels and enemy



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warships."



### Flying Boats

"Only one model of flying boat has thus far become operational in Iran. In fact, it is a new type of plane that can land on the water, and can be equipped with anti-ship missiles. This boat can take off from the water, from various points on Iran's coast, and can operate against enemy warships together with aerial defense."

### Drones

"The Iranian army drones are used for anti-ship

it launches the missiles. Karar drones can carry



*Karar drone*



missions. The Karar drone can carry four Kowsar missiles. Due to its speed, the drone can increase the potential energy of the missiles and extend their range. The drone has a range of some 1,000 km; it is launched by a rocket, and when it reaches the correct range,

dozens of missiles to the enemy warships.

"The Karar drone is made from materials that allow it to evade radar detection and get close to enemy vessels. Nevertheless, the drone can also use missiles like Naser-1, for large areas."

### Artillery and Surface-to-Sea Rocket Systems

The article also claimed that Iranian security officials several times pointed out that guided bombs are actually being used against moving naval targets. It said that the range of Iranian artillery shells is over 40 km, and that they can

be used to harm or destroy enemy ships. It added that during maneuvers, Iran had successfully utilized the Fajr-3 and Fajr-5 rocket launchers against naval targets.

### Endnotes

[1] Reuters.com, November 21, 2011

[2] Sharq (Iran), December 15, 2011; ISNA (Iran), December 14, 2011. An article on the Mardomak website, which is operated from outside Iran, stated that the closing of the strait was an empty threat: "As long as Iran's economy is dependent upon oil, and the export of crude oil passes through the Persian Gulf, the closing of the Strait of Hormuz will remain [nothing but] a verbal threat... Even if the tension between Iran and the U.S. increases considerably, the closing of the strait will not be an option. Iran will respond to the pressure by other means." Mardomak.org, December 22, 2011.

[3] Fars (Iran), December 13, 2011. The oil minister denied reports that Iran plans to close the strait as part of the exercise. Mashreq News (Iran), December 16, 2011.

[4] Kayhan (Iran), December 13, 2011. In addition, a group of Majlis members circulated a petition defending Iran's right to close the strait in response to oil sanctions. Kayhan (Iran), December 19, 2011.



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[5] Yjc.ir, December 22, 2011.

[6] See MEMRI Inquiry and Analysis No. 615, "Iran Demonstrates Its Deterrent Strength in Military Maneuvers," June 14, 2010, <http://www.memri.org/report/en/0/0/0/0/0/4372.htm>; MEMRI Special Dispatch No. 2029, "Iran Threatens to Close Strait of Hormuz If Attacked," August 19, 2008, <http://www.memri.org/report/en/0/0/0/0/0/2842.htm>; MEMRI Inquiry and Analysis No. 407, "Iran's Response to Western Warnings: 'First Strike,' 'Preemptive Attack,' Long-Range Ballistic Missiles, 'Asymmetric [Guerilla] Warfare,'" November 28, 2007, <http://www.memri.org/report/en/0/0/0/0/0/2465.htm>.

[7] Mashreq News (Iran), December 15, 2011.

### Iran and al Qaida – working hand in bloody glove

By Clifford D. May

Source: <http://www.standard.net/stories/2011/12/28/iran-and-al-qaida-working-hand-bloody-glove>

Late last week, the State Department announced a \$10 million reward for information leading to the capture of Ezedin Abdel Aziz Khalil, aka Yasin al-Suri -- Yasin the Syrian. Serious students of terrorism and

the region," Robert Hartung, State Department assistant director for threat investigations and analysis, told reporters. "He is a dedicated terrorist working in support of al Qaida with the support of the Government of Iran, which the Department of State has designated a state sponsor of terrorism."



Iranian navy members take positions during a drill in the Sea of Oman, Wednesday, Dec. 28, 2011. Iran's navy chief warned Wednesday that his country can easily close the strategic Strait of Hormuz at the mouth of the Persian Gulf, the passageway through which a sixth of the world's oil flows. The navy is in the midst of a 10-day drill in international waters near the strategic oil route. (AP Photo/IIPA, Ali Mohammadi)

counterterrorism saw this as big news for two reasons.

The first is tactical: Never before has a reward been offered for the capture of a terrorist financier. But the moneymen are vital links in the terrorist chain so targeting them makes sense. Also unusual is the amount: Only Ayman al-Zawahiri, who has been trying to fill Osama bin Laden's shoes at al Qaida's main office, commands a larger bounty (\$25 million).

The second reason is strategic: al-Suri is an al Qaida operative who, since 2005, has been living in Iran, working in collaboration with the theocratic regime, according to U.S. officials. "Under an agreement between al Qaida and the Government of Iran, Yasin al-Suri has helped move money and recruits through Iran to al Qaida leaders in neighboring countries in

Those are stunning words. Within the foreign policy establishment the prevailing orthodoxy has long maintained that Iran's Shia rulers despise the Sunnis of al-Qaida; that the enmity is mutual; and that operational cooperation between them is therefore inconceivable. It also has been a longstanding article of faith that the terrorist groups threatening America are "non-state" actors, groups limited in their capabilities because they do not enjoy the support of national rulers with all the resources those rulers can bring to the table.

Dissenting from that paradigm have been such analysts as Michael Ledeen and Thomas Joscelyn of the Foundation for Defense of Democracies and Stephen Hayes of The Weekly Standard.



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They have argued that Iran and al Qaida collaborate despite theological and ideological differences; that many, if not most, of the Islamist groups waging war against the West are linked like strands of a spider's web; and that Iran is the "terrorist master."

Iranian submarines and warships participate in navy drill in the Sea of Oman Wednesday, Dec. 28, 2011. Iran's navy chief warned Wednesday that his country can easily close the strategic Strait of Hormuz at the mouth of the Persian Gulf, the passageway through which a sixth of the world's oil flows. The navy is in the midst of a 10-day drill in international waters near the strategic oil route. (AP Photo/Young Journalists Club, Mohammad Ali Marizad)



For U.S. government spokesmen to talk of Iran working hand-in-bloody-glove with Al Qaida is a little like Inquisitors in 1663 saying to Galileo: "OK, Gal, maybe you're right. Maybe the Earth does move around the sun after all."

Ties between Iran and al-Qaida trace back to the early 1990s when Hasan Al-Turabi, the leader of Sudan's National Islamic Front, made it his mission to encourage Sunni-Shia reconciliation. Al-Turabi facilitated a series of meeting between bin Laden, then living in Khartoum, and envoys from Tehran. It did not take long for Iran and al-Qaida to reach an informal agreement: Iran would provide training, intelligence and explosives. Al-Qaida would make good use of these services and products against common enemies.

The 9/11 Commission Report has a section titled: "Assistance from Hezbollah and Iran to Al Qaida." It notes that what began in Sudan continued: "Intelligence indicates the persistence of contacts between Iranian security officials and senior Al-Qaida figures after Bin Laden's return to Afghanistan... Iran made a concerted effort to strengthen relations with Al Qaida after the October 2000 attack on the USS Cole ..."

The report also found "strong evidence that Iran facilitated the transit of Al Qaida members into and out of Afghanistan before 9/11, and that some of these were future 9/11 hijackers." In May of this year, The New York Times

reported that two defectors from Iran's intelligence service "testified that Iranian officials had 'foreknowledge of the 9/11 attacks' " and that one of them "claimed that Iran was involved in planning the attacks."

There's more. A year ago, Hayes and Joscelyn wrote: "Nearly a decade after the 9/11 attacks, not only do we have abundant evidence that Iran, the world's foremost state sponsor of terror, supports al Qaida. We also have evidence that Iran actively assists terrorists and insurgents targeting our soldiers and diplomats" in both Afghanistan and Iraq.

In an interview last week, Defense Secretary Leon Panetta said that if Iranian rulers "proceed and we get intelligence that they are proceeding with developing a nuclear weapon then we will take whatever steps necessary to stop it." Was he bluffing? Or has there been a fundamental change in how senior members of the Obama administration understand who America's enemies are, how they operate and cooperate? Or is this still an on-going debate within the administration? I suspect we'll find out sometime in the New Year.

*Clifford D. May is president of the Foundation for the Defense of Democracies, a policy institute focusing on terrorism*



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### Water Cannons! Lasers! Sonic Weapons! Fighting Somali Pirates With Science

Source: <http://www.fastcompany.com/1804176/fighting-somali-pirates-with-science>



Piracy is a serious problem in the Gulf of Aden and the Indian Ocean. While NATO, Russian, Iranian, and Chinese ships all escort merchant vessels through the Gulf of Aden, foreign

is booming. A variety of arms contractors and boutique manufacturers are producing everything from “stinky water” walls to high-powered water cannons to deter murderous Somali pirates.

One firm, the International Maritime Security Network, markets an expensive defense package called the “Triton Shield Anti-Piracy System.” The integrated product, which includes everything from on-ship security guards to a specialized camera system, also creates a wall of very stinky water. Bloomberg’s Julie Bykowitz uncovered an impenetrable wall of stinky, foul-smelling water that can be deployed by Triton against potential pirate skiffs. International Maritime Security’s Ralph Pundt described the smell as that of “a skunk on steroids.”

Lasers can also be used to defend against pirates. Earlier this year, British



militaries can't be everywhere at once. Ships traveling through dangerous waters often need to create their own improvised anti-pirate defenses... and the market for these products

defense contractor BAE Systems announced the successful deployment of its prototype anti-pirate laser. BAE's Laser Distraction system



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uses a special eye-safe laser that can either provide a visual warning to pirates at distances greater than two kilometers or temporarily disorient attackers at closer distances. Ships can either deploy the Later Distraction system semi-autonomously or have a crew member operate the product. Meanwhile, fellow British manufacturer BCB International (which has been featured in *Fast Company* before for its miniature drones) markets an anti-pirate air cannon. The Buccaneer is a lightweight air cannon designed to fire and deploy a net around any small craft trying to board a ship. The cannon has a range of approximately 2,700 feet and fires proprietary projectiles that create a net in the water around the craft. Apart from net projectiles, the Buccaneer also fires high-powered smoke projectiles.

BCB International's Phillippe Minchin told *Fast Company* that "the use of lethal force should be selected as a 'last resort,' whereas non-lethal protective measures can help to create a 'layered' and proportional defense around a vulnerable vessel or offshore platform. BCB International's Buccaneer launchers utilize compressed air to launch entanglement nets up to 60 meters, which are designed to foul oncoming skiffs' props and therefore disable the attacker before they have a chance to attempt boarding. Usefully, the Buccaneer can also deploy payloads such as smoke cartridges out to 700 meters, which means that like the LRAD (Long Range Acoustic Device) system, it can create an effect on a target well before it comes into close proximity with the vessel."

LRAD systems are frequently used by military and civilian craft to repel pirates. The sonic systems, often deployed by police and military forces at riots worldwide, create an unbearable wall of noise. In 2008, a British cruise ship successfully used LRAD to repel Somali pirates. LRAD is a proprietary product of the LRAD Corporation, who make a significant portion of their sales from commercial shipping. *Fast Company* reported previously on the growing use of advanced technology by Somali

pirates. Because pirates have begun using more sophisticated methods to trap shipping vessels--it's not unknown for savvy maritime criminals to track sea traffic via Internet



postings--protective measures have changed. However, according to one expert, the best security is the old-fashioned kind. Jay Bahadur, author of *The Pirates of Somalia*, believes that armed guards are the most important anti-pirate defense. In an email, Bahadur told *Fast Company* that while "I think there have been some valid counter-piracy technologies developed by defense contractors--the proposed BAE "laser distraction system" comes to mind--but in the end, it comes down to what shipowners can afford. Commercial shipping is one of the most cutthroat industries in the world, and shipowners don't have the budgets to spend on space-age defenses. The recent drop-off in piracy has been due to the increased use of armed guards, not technological innovation, which in turn have been made economically feasible by skyrocketing ransoms and lengthening captivity periods. One insurance company issued a stat a few months back that 80% of pirate attacks were being repelled by armed guards, and no vessel employing them has been hijacked." Additional anti-pirate security devices are expected to be unveiled at the 2012 Transport Security Expo, which will be held in London this coming November.



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### The new nexus of narcoterrorism: Hezbollah and Venezuela

By Vanessa Neumann

Source: <http://www.fpri.org/enotes/2011/201112.neumann.narcoterrorism.html>

Press stories, as well as a television documentary, over the past two months have detailed the growing cooperation between South American drug traffickers and Middle Eastern terrorists, proving that the United States continues to ignore the mounting terrorist threat in its own “backyard” of Latin America at its own peril. A greater portion of financing for Middle Eastern terrorist groups, including Hezbollah and Al Qaeda, is coming from Latin America, while they are also setting up training camps and recruiting centers throughout our continent, endangering American lives and interests globally. Some Latin American countries that were traditional

among other initiatives, joint oil and gas exploration, as well as the construction of tanker ships and petrochemical plants. Chávez’s assistance to the Islamic Republic in circumventing U.N. sanctions has got the attention of the new Republican leadership of the House Foreign Affairs Committee, resulting in the May 23rd, 2011 announcement by the US State Department that it was imposing sanctions on the Venezuelan government-owned oil company Petróleos de Venezuela (PDVSA) as a punishment for circumventing UN sanctions against Iran and assisting in the development of the Iran’s nuclear program.

Besides its sponsored terrorist groups, Iran

also has a growing direct influence in Latin America, spurred by three principal motivations: 1) a quest for uranium, 2) a quest for gasoline, 3) a quest for a base of operations that is close to the US territory, in order to position itself to resist diplomatic and possible military pressure,

allies for the U.S. (including Venezuela) have now forged significant political and economic alliances with regimes whose interests are at odds with those of the U.S., particularly China, Russia and Iran. In fact Iran and Iran’s Lebanese asset, “the Party of God,” Hezbollah, have now become the main terror sponsors in the region and are increasingly funded by South American cocaine.

Venezuela and Iran are strong allies: Venezuelan President Hugo Chávez and Iranian President Mahmoud Ahmadinejad publicly call each other “brothers,” and last year signed 11 memoranda of understanding for,

possibly by setting up a missile base within striking distance of the mainland US, as the Soviets did in the Cuban Missile Crisis. FARC, Hezbollah and Al Qaeda all have training camps, recruiting bases and networks of mutual assistance in Venezuela as well as throughout the continent.

I have long argued that Latin America is an increasing source of funding for Middle Eastern terrorism and to overlook the political changes and security threats in the region with such geographic proximity to the US and its greatest source of immigrants is a huge strategic mistake. It was



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inevitable that South American cocaine traffickers and narcoterrorists would become of increasing importance to Hezbollah and other groups. While intelligence officials believe that Hezbollah used to receive as much as \$200 million annually from its primary patron, Iran, and additional money from Syria, both these sources have largely dried up due to the onerous sanctions imposed on the former and the turmoil in the latter.

A recent New York Times front-page article (December 14, 2011) revealed the extensive and intricate connections between Hezbollah and South American cocaine trafficking. Far from being the passive beneficiaries of drug-trafficking expats and sympathizers, Hezbollah has high-level officials directly involved in the South American cocaine trade and its most violent cartels, including the Mexican gang Los Zetas. The “Party of God’s” increasing foothold in the cocaine trade is facilitated by an enormous Lebanese diaspora. As I wrote in my May 2011 e-note, in 2005, six million Muslims were estimated to inhabit Latin American cities. However, ungoverned areas, primarily in the Amazon regions of Suriname, Guyana, Venezuela, Colombia, Ecuador, Peru, Bolivia, and Brazil, present easily exploitable terrain over which to move people and material. The Free Trade Zones of Iquique, Chile; Maicao, Colombia; and Colón, Panama, can generate undetected financial and logistical support for terrorist groups. Colombia, Bolivia, and Peru offer cocaine as a lucrative source of income. In addition, Cuba and Venezuela have cooperative agreements with Syria, Libya, and Iran.

Some shocking revelations into the global interconnectedness of Latin American governments and Middle Eastern terrorist groups have come from Walid Makled, Venezuela’s latter-day Pablo Escobar, who was arrested on August 19, 2010 in Cúcuta, a town on the Venezuelan-Colombian border. A Venezuelan of Syrian descent known variously as “El Turco” (“The Turk”) or “El Arabe” (“The Arab”), he is allegedly responsible for smuggling 10 tons of cocaine a month into the US and Europe—a full 10 percent of the world’s supply and 60 percent of Europe’s supply. His massive infrastructure and distribution network make this entirely plausible, as well as entirely implausible the Venezuelan government did not know. Makled owned Venezuela’s biggest airline, Aeropostal,

huge warehouses in Venezuela’s biggest port, Puerto Cabello, and bought enormous quantities of urea (used in cocaine processing) from a government-owned chemical company.

After his arrest and incarceration in the Colombian prison La Picota, Makled gave numerous interviews to various media outlets. When asked on camera by a Univisión television reporter whether he had any relation to the FARC, he answered: “That is what I would say to the American prosecutor.” Asked directly whether he knew of Hezbollah operations in Venezuela, he answered: “In Venezuela? Of course! That which I understand is that they work in Venezuela. [Hezbollah] make money and all of that money they send to the Middle East.” A prime example of the importance of the Lebanese diaspora in triangulating amongst South American cocaine and Middle Eastern terrorists, is Ayman Joumaa, a Sunni Muslim of the Medellín cartel with deep ties with Shiites in the Hezbollah strongholds of southern Lebanon. His indictment made public on Tuesday “charges him with coordinating shipments of Colombian cocaine to Los Zetas in Mexico for sale in the United States, and laundering the proceeds” (NY Times, Dec. 14, 2011).

The growing routes linking South American cocaine to Middle Eastern terrorists are primarily from Colombia through Venezuela. According to an April 2011 report by the United Nations Office on Drugs and Crime (UNODC) the Bolivarian Republic of Venezuela is the most prominent country of origin for direct cocaine shipments to Europe, with the cocaine coming mainly from Colombia, primarily the FARC and ELN terrorist groups. Shipments to Africa, mostly West Africa, gained in importance between 2004 and 2007, resulting in the emergence of a new key trans-shipment hub: centered on Guinea-Bissau and Guinea, stretching to Cape Verde, The Gambia and Senegal, thus complementing the already existing trafficking hub of the Bight of Benin, which spans from Ghana to Nigeria. As the cocaine is transported through Africa and into Europe, its safe passage is guaranteed (much as it was in Latin America) by terrorist groups—most prominently, Al Qaeda and Hezbollah. The cocaine can also travel from Latin America’s Tri-Border Area (TBA)—bounded by Puerto Iguazu, Argentina; Ciudad del Este, Paraguay; and Foz do Iguaçu, Brazil—to West Africa





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(particularly Benin, Gambia and Guinea-Bissau, with its poor governance and vast archipelagos) and then north into Europe through Portugal and Spain or east via Syria and Lebanon.

Hezbollah's traditional continental home has been the TBA, where a large, active Arab and Muslim community consisting of a Shi'a majority, a Sunni minority, and a small population of Christians who emigrated from Lebanon, Syria, Egypt and the Palestinian territories about 50 years ago. The TBA, South America's busiest contraband and smuggling center, has long been an ideal breeding ground for terrorist groups, including Islamic Jihad, Hezbollah and Al Qaeda—the latter since 1995 when Osama bin Laden and Khalid Sheikh Mohammad first visited.

Hezbollah is still active in the TBA, according to Argentine officials. They maintain that with Iran's assistance, Hezbollah carried out a car-bomb attack on the main building of the Jewish Community Center (AMIA) in Buenos Aires on July 18, 1994, protesting the Israeli-Jordanian peace agreement that year. Today, one of the masterminds of those attacks, the Iranian citizen and Shia Muslim teacher, Mohsen Rabbani, remains not only at large, but extremely active in recruiting young Brazilians, according to reports in Brazilian magazine *Veja*. This region, the third in the world for cash transactions (behind Hong Kong and Miami), continues to be an epicenter for the conversion and recruitment of a new generation of terrorists who then train in the Middle East and pursue their activities both there and in the Americas.

According to Lebanon's drug enforcement chief, Col. Adel Mashmoushi, as cited in *The New York Times*, a main transportation route for terrorists, cash and drugs was aboard a flight commonly referred to as "Aeroterror," about which I wrote in my May 2011 e-note for FPRI. According to my own secret sources within the Venezuelan government, the flight had the route Tehran-Damascus-Caracas-Madrid, where it would wait for 15 days, and flew under the direct orders of the Venezuelan Vice-President, according to the captain. The flight would leave Caracas seemingly empty (though now it appears it carried a cargo of cocaine) and returned full of Iranians, who boarded the flight in Damascus, where they arrived by bus from Tehran. The Iranian

ambassador in Caracas would then distribute the new arrivals all over Venezuela.

I wrote in my May 2011 e-note that reports that Venezuela has provided Hezbollah operatives with Venezuelan national identity cards are so rife, they were raised in the July 27, 2010, Senate hearing for the recently nominated U.S. ambassador to Venezuela, Larry Palmer. When Palmer answered that he believed the reports, Chávez refused to accept him as ambassador in Venezuela. Thousands of foreign terrorists have in fact been given national identity cards that identify them as Venezuelan citizens and give them full access to the benefits of citizenship. In 2003, Gen. Marcos Ferreira, who had been in charge of Venezuela's Department of Immigration and Foreigners (DIEX) until he decided to support the 2002 coup against Chávez, said that he had been personally asked by Ramón Rodríguez Chacín (who served as both deputy head of DISIP—Venezuela's intelligence service, now renamed SEBIN—and Interior Minister under Chávez) to allow the illegal entry of Colombians into Venezuela thirty-five times and that the DISIP itself regularly fast-tracked insurgents including Hezbollah and Al Qaeda. The newly-minted Venezuelan citizens during Ferreira's tenure include 2,520 Colombians and 279 "Syrians." And that was only during three of the past twelve years of an increasingly radicalized Chávez regime.

While Chávez has done more than anyone to strengthen these relationships with Middle Eastern terrorists, in an attempt to use what he calls "the International Rebellion" (including Hezbollah, Hamas and ETA) in order to negotiate with the US for power in Latin America, the coziness of the seemingly strange bedfellows dates back to the fall of the Soviet Union, when the USSR abandoned Cuba. At the Sao Paulo Forum of 1990, prominent Venezuelans and international terrorists were all in attendance, including: then-Venezuelan President Carlos Andrés Pérez (against whom Chávez attempted a coup in 1992); Alí Rodríguez, then-President of PDVSA (Petróleos de Venezuela, the government-owned oil company); Pablo Medina, a left-wing Venezuelan politician who initially supported Chávez, but has now moved to the opposition; as well as Fidel Castro, Moammar Qaddafi and leaders of the FARC, Tupamaros and Sendero Luminoso (Shining Path). The extent



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to which these alliances have deepened and become institutionalized is exemplified by the Continental Bolivarian Coordinator, the office that coordinates all the Latin American terrorists. According to a well-placed Venezuelan military source of mine, they are headquartered in the Venezuelan state of Barinas—the same state that is effectively a Chávez family fiefdom, with their sprawling family estate, La Chavera, and their total control of local politics. Their extreme anti-Semitism is not ideological, but simply out of convenience: to court and maintain Iranian support.

According to the Congressional Research Service, with enactment of the sixth FY2011 Continuing Resolution through March 18, 2011, (H.J.Res. 48/P.L. 112-6) Congress has approved a total of \$1.283 trillion for military operations, base security, reconstruction, foreign aid, embassy costs, and veterans' health care for the three operations initiated since the 9/11 attacks: Operation Enduring Freedom (OEF) Afghanistan and other counter terror operations; Operation Noble Eagle (ONE), providing enhanced security at military bases; and Operation Iraqi Freedom (OIF).

Yet for all this massive spending on fighting terrorists and insurgents in the Middle East, we are leaving ourselves vulnerable to them here, on a number of fronts. First and foremost, the United States is under territorial threat through its Mexican border. Hezbollah operatives have already been smuggled, along with drugs and weapons, in tunnels dug under the border with the US by Mexican drug cartels. Only a week after my October 5th interview by KT McFarland on Fox, where I specifically warned of a possibility of this resulting in a terrorist attack carried out inside the US with the complicity of South American drug traffickers, the global press revealed a plot by the elite Iranian Quds Force to utilize the Mexican gang Los Zetas to assassinate the Saudi ambassador to Washington in a bombing that would have murdered many Americans on their lunch hour.

Second, American assets in Latin America are under threat. Embassies, consulates, corporate headquarters, energy pipelines and American- or Jewish-sponsored community centers and American citizens have already been targeted by terrorist groups all over Latin America for decades: FARC in Colombia, Sendero Luminoso and Tupac Amaru in Peru and

Hezbollah in Argentina. Al Qaeda is also rumored to have a strong presence in Brazil.

Third, while American soldiers give their lives trying to defeat terrorists and violent insurgents in the Middle East, these same groups are being supported and strengthened increasingly by Latin America, where they receive training, weapons and cash. This makes American military engagement far more costly by any metric: loss of life and financial cost.

Indeed over the last decade, Latin America is a region spiraling ever more out of American control. It is a region with which the United States has a growing asymmetry of power: it has more importance to the United States, while the United States is losing influence over Latin America, which remains the largest source of oil, drugs and immigrants, both documented and not. Latinos now account for 15 percent of the US population and nearly 50 percent of recent US population growth, as well as a growing portion of the electorate, as seen in the last presidential elections. The discovery of huge new oil reserves in Brazil and Argentina, that might even challenge Saudi Arabia, and the 2012 presidential elections in Venezuela, make Latin America of increasing strategic importance to the U.S., particularly as the future political landscape of the Middle East becomes ever more uncertain, in the wake of the Arab Spring and the political rise of the Muslim Brotherhood in previously secular Arab governments. The growth of transnational gangs and the resurgence of previously waning terrorist organizations pose complicated new challenges, as violence and murder cross the U.S. border, costing American lives and taking a huge toll on U.S. law enforcement. The United States needs to develop a smart policy to deal with these challenges.

So while the US is expending vast resources on the GWOT, the terrorists are being armed and reinforced by America's southern neighbors, making the GWOT far more costly for the US and directly threatening American security. Even though Venezuelan President Hugo Chávez may be removed from the presidency either through an electoral loss in the October 7, 2012 presidential elections or through his battle with cancer, certain sectors of the Venezuelan government will continue to support international terrorism, whose activities, bases and training camps have now spread throughout this region. By understanding the



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dynamics of the increasingly entrenched narcoterrorist network, the U.S. can develop an

effective policy to contend with these, whether or not President Chávez remains in power.

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### Iron Triangle of Terror: Iran, Hezbollah, and Los Zetas?

Source: <http://www.analysisintelligence.com/intelligence-analysis/iron-triangle-of-terror-iran-hezbollah-and-los-zetas/>

What would the ultimate border security nightmare look like? Might it involve drug cartels, rogue Special Forces soldiers, or

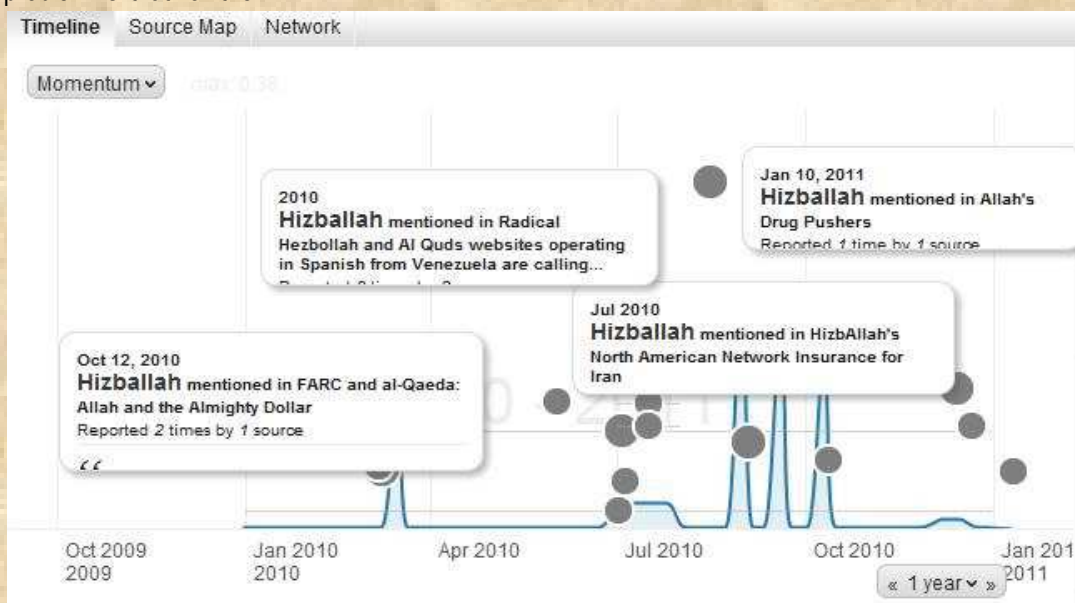


transnational terrorists? How about all three? This scenario sounds like something out of a Hollywood movie. The problem is that for the United States this nightmare may have come true.

On December 15th it was revealed in an indictment that Hezbollah has a substantial drug connection to the Mexican drug cartel Los Zetas. The Lebanese druglord Ayman Joumaa was indicted in absentia for, “conspiring to smuggle over 90,000 tons of cocaine into America and laundering over \$250 million for the cartels”. The druglord has close ties to Hezbollah and functioned as a middle man

between the terrorist organization and the cartels. In terms of raw numbers, the amount of cocaine that he tried to smuggle was equivalent to a cargo of 2,250 eighteen wheelers. The sheer volume of this transaction is cause for concern, but the fact that Hezbollah and Los Zetas are working together is far worse.

So why is this new development so significant to US border security? We must first consider the history and background of these groups. Hezbollah is one of the world's largest terrorist groups and is based in southern Lebanon. The Shiite organization receives funding from Iran and engaged in a proxy war with Israel in 2005. It is responsible for some of the worst terrorist attacks of the last two decades, including the 1983 Beirut bombing that killed 241 Americans. Hezbollah may be



the most influential organization preventing stability in the Middle East.



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Los Zetas are the cartel equivalent of Hezbollah in Latin America. The Zetas are described as, “highly trained, highly motivated commandos formerly with the Mexican military...[that] represent law enforcement’s worst nightmare come true”. The Zetas began as a group of paramilitary soldiers that were turned by the Gulf cartel. After falling out with the cartel, the Zetas formed their own. They are considered to be the “most dangerous drug cartel” and the second most powerful in Mexico. The organization has participated in a number of hideous acts including the 2011 Tamaulipas massacre that killed some 200 civilians. Los Zetas is considered to be one of the best trained and violent groups in Latin America.

What is the regional significance of Hezbollah

located in the tri-border area Brazil, Argentina, and Paraguay. Its primary functions are to launder money and receive profits from the drug trade. Hezbollah had an, “estimated 460 operatives in the TBA by mid-2000” and this number has probably increased dramatically. Profits from criminal activity in the region are estimated to be in the millions of dollars. Over the past 25 years, Hezbollah has carefully trained its top operatives to form cells and set up shop in North and South America. If Hezbollah were a drug cartel or a separatist movement, it would not be as much of a threat to the United States. However, Hezbollah is a very connected organization that has killed hundreds of Americans and fought a war with Israel. The most important fact about Hezbollah is



working with the drug cartels? Let’s consider Hezbollah’s cell activity in Latin America and examine its relationship with the cartels.

Hezbollah’s influence in the region dates back several years. Hezbollah has been involved in the drug trade in Latin America since the mid-1980s. The group is primarily

that it is a state sponsored terrorist organization, “Hezbollah clearly acts as a proxy for Iran—specifically, the Iranian Revolutionary Guards Corps Qods Force—globally and in Latin America. Thus, Hezbollah’s escalating presence in the



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Western Hemisphere can be understood only in the context of its patron Iran's pursuit of its strategic objectives". The fact that Iran is a state sponsor of Hezbollah means that the organization has the finances and the expertise to commit substantial acts of terrorism.

In July, members of Congress were briefed on the growing influence of Hezbollah in the region. One report indicated that the threat to the US border is already here, "operatives were already infiltrating the southern border with Mexico as well as Canada. In July 2010, the first improvised explosive device exploded in the U.S.-Mexico border town of Ciudad Juarez". This problem seems to have been severely overlooked by the mainstream media. It is quite surprising because Assistant Secretary of State Roger Noriega even made a statement saying that, "I believe there will be an attack on U.S. personnel, installations or interests in the Americas as soon as Hizbullah operatives believe that they are capable of such an operation

The issue has increased in momentum over the past few months

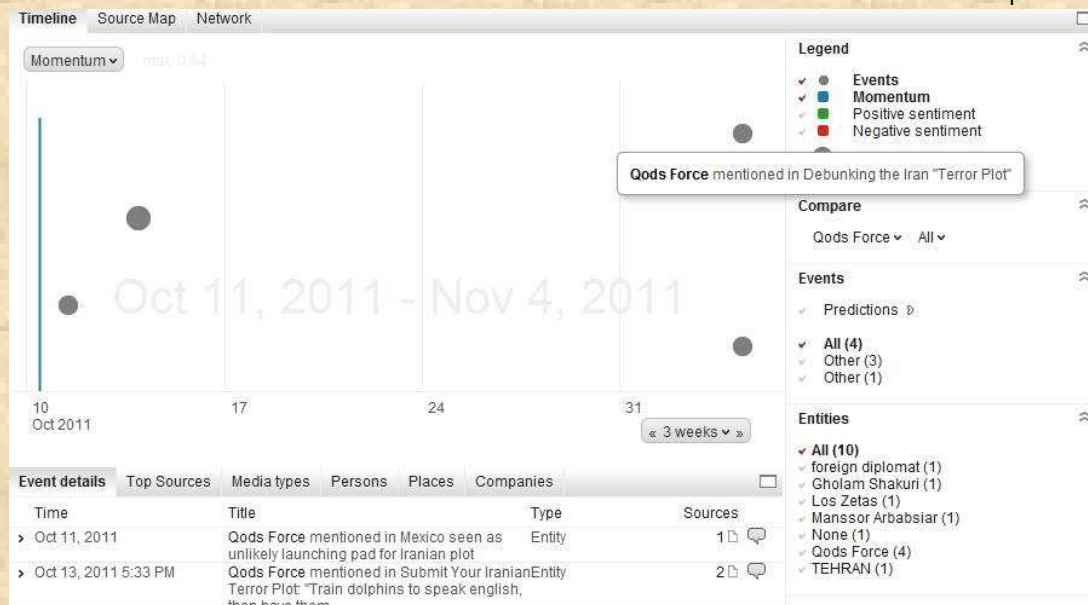
US websites dedicated to border issues and even one of the Republican presidential candidates mentioned the "significant and imminent threat of the Iran-Latin America nexus". Others have indicated that Hezbollah functions as a sort of insurance policy for Iran in those regions. The state can fund the terrorist group and still exercise plausible deniability in the event of a major attack. Iran perceives its support of Hezbollah as a way to pressure the United States within its strategic sphere of influence in the Americas.

Some sources have said that the strengthening relationship between Iran and Venezuela has increased Hezbollah's influence in the region. Both leaders are staunchly anti-American, and it is reasonable to think that they would pursue activities that would undermine US interests. Roger Noreiga, the same official that warned of an attack by Hezbollah, indicates that Venezuela, "has allowed Iran to mine uranium" and that Venezuela's Margarita Island has eclipsed the infamous TBA as the principal safe haven and center of Hezbollah operations in the Americas". This is particularly disturbing as Iran is suspected of pursuing a nuclear

weapon while simultaneously funding Hezbollah close to the US border. Therefore, there major concerns that if Iran obtains a nuclear weapon it might share the weapon with Hezbollah.

There are two major Hezbollah networks operating in the Americas under the direction of the Iranian Quds Force.

The first is the Nassereddine network, operated by a former Lebanese citizen that became a Venezuelan and is now the second-ranking diplomatic official to Syria. He currently resides on Margarita Island and runs money laundering operations for the group. The other network is purportedly run by Hojjat al-Islam Mohsen Rabbani, a cultural attaché from Iran who is involved in



without implicating their Iranian sponsors in the crime". It is highly significant that a former top US official has come out and said that an attack by Hezbollah is likely. However, it appears that the salience of the issue has grown over the past few months:



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various recruitment activities and frequently travels under false papers in Latin America. The two networks together make up the majority of Hezbollah's activity in the Americas. Now back to the cartels. Why is the link between Hezbollah and Los Zetas so important? The main concern is that if Hezbollah and Los Zetas are cooperating on drugs (which they are to the tune of hundreds of millions), then why would they not cooperate on weapons? Hezbollah and other extremists may be willing to export their knowledge of IEDs to the cartels. The relationship between Hezbollah and Los Zetas appears to have already expanded beyond drugs. In October 2011, the US authorities revealed that there was an attempt made by Iran to assassinate the Saudi ambassador on US soil.

It looks like Los Zetas was intricately involved with Iran in this and other related plots, "The alleged plot also included plans to pay the cartel, Los Zetas, to bomb the Israeli Embassy in Washington and the Saudi and Israeli Embassies in Argentina, according to a law enforcement official...The plotters also discussed a side deal between the Quds Force, part of Iran's Islamic Revolutionary Guards Corps, and Los Zetas to funnel tons of opium from the Middle East to Mexico". Other information that we have found would corroborate the existence of a relationship between Hezbollah and Los Zetas.

### Is the relationship between Hezbollah and Los Zetas merely hearsay?

There are also some analysts that think that the entire relationship should be played down and that Hezbollah's influence is overplayed. James Bowsworth of the Christian Science Monitor downplays the relationship saying, "The case is notable for having all the key words that people get excited about: Hezbollah! Terrorist-financing! Cocaine! Zetas! Venezuela! And all of that appears to be true. At the same time, in spite of all the red flag key words, the details within these articles and the indictment show how the US government can deal with the issue of Hezbollah in the hemisphere without panic and over-reaction"

He also quotes one US official that stated the exact opposite of what other sources said, "It's not like there's a sit-down between the leaders of Hezbollah and the Zetas. Nor is this about Presidents Hugo Chavez of Venezuela and Mahmoud Ahmadinejad of Iran plotting together. It should not be portrayed as such". This is interesting in light of the fact that there are extensive Hezbollah networks in the Americas and that Los Zetas may have been complicit with Iran in plotting to bomb the United States. A blog post called "Debunking the Iran Terror Plot" may provide a counterpoint to the theory that Hezbollah and Los Zetas are coordinating. The report takes an in-depth look at the FBI report and finds that there are many holes within the indictment. The author in that piece concluded that the plot did not match Iranian interests and that Los Zetas was likely not involved.

### Conclusion

Are Hezbollah and Los Zetas actively coordinating to undermine US interests in the Americas? There is good reason to believe that the groups are coordinating on narcotics activities. Both stand to gain substantially from money laundering and drug trafficking. The December 15th indictment appears to clearly establish these links and the report has not been questioned as much as the FBI report on the Iranian plot. The data on drug activity between Hezbollah and Los Zetas is more convincing than the plotting charges.

The Iranian plot may have been true and if so it is particularly disturbing for US security. If these two groups are indeed plotting together then an attack at the border may be an imminent threat. Despite this there are no conclusive links to show an iron triangle between Iran, Hezbollah, and Los Zetas. The three may be casually linked to one another in plotting terrorist attacks, but at present this coordination does not seem to be widespread.

## 6,681 killed in 2,782 terror attacks in 2011

Source: <http://www.brecorder.com/general-news/single/599/172/1138737/>



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A total of 2,782 militant, insurgent and sectarian related-terrorist's attacks were



According to the data compiled by taking figures from Pakistan Institute of Peace Studies and other sources, 1850 terrorism and insurgent related incidents were recorded, wherein 2,369 personnel were killed and 1,625 people were killed in 275 clashed between security forces and militants, besides killing 869 militants in 129 military operations.

The US administration carried out 75 Drone attacks in which 557 people were killed, while in 51 cross border attacks 57 people were killed.

Around 675 people lost their lives in 246 political and ethnic clashes and 455 were killed in 132 Inter-tribal clashes in 2011.

The year 2011 was marred by a combination of Taliban militancy, Baloch nationalist insurgency, incidents of sectarian and political violence.

In January 2011, Baloch insurgents

Terrorism Risk Index



| Legend       | Rank | Country     | Rating  | Rank | Country  | Rating  |
|--------------|------|-------------|---------|------|----------|---------|
| Extreme Risk | 1    | Somalia     | Extreme | 6    | Yemen    | Extreme |
| High risk    | 2    | Pakistan    | Extreme | 7    | P.O.T.   | Extreme |
| Medium risk  | 3    | Iraq        | Extreme | 8    | DR Congo | Extreme |
| Low risk     | 4    | Afghanistan | Extreme | 9    | C.A.R.   | Extreme |
| No Data      | 5    | South Sudan | Extreme | 10   | Colombia | Extreme |

© Maplecroft, 2011

reported across the country in 2011 in which around 6,681 people were killed.

The figure was taken after counting casualties caused by terrorist attacks, military operations, inter-tribal clashes and cross-border attacks (including drone strikes and incursions by Nato/ISAF forces in FATA) in Pakistan.

In comparison with corresponding year 2010, militant, insurgent and sectarian related attacks showed a considerable decline, as around 611 less attacks and 3,322 less deaths were reported in the outgoing year.

Fatalities in Terrorist Violence in Pakistan: 2003- 2011

| Year  | Civilians | Security Forces (SFs) | Terrorists | Total |
|-------|-----------|-----------------------|------------|-------|
| 2003  | 140       | 24                    | 25         | 189   |
| 2004  | 435       | 184                   | 244        | 863   |
| 2005  | 430       | 81                    | 137        | 648   |
| 2006  | 608       | 325                   | 538        | 1471  |
| 2007  | 1523      | 597                   | 1479       | 3599  |
| 2008  | 2155      | 654                   | 3906       | 6715  |
| 2009  | 2307      | 1011                  | 8267       | 11585 |
| 2010  | 1796      | 469                   | 5170       | 7435  |
| 2011* | 226       | 98                    | 384        | 708   |
| Total | 9620      | 3443                  | 20150      | 33213 |

\* Data till February 20, 2011, Source: SATP

continued their attacks against government installations,



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personnel of law enforcement agencies, government functionaries and NGO workers.

The recovery of dead bodies of Baloch youth from isolated places continued unabated.

Karachi remained in the grip of politically motivated targeted killings and sectarian violence. In February, owing to upsurge in terrorist attacks and deteriorating security situation in urban centres of Khyber-Pakhtunkhwa (KPK), provincial government decided to launch a major crackdown against suspected militant hideouts in Frontier Region (FR) Peshawar and Michni areas. It was also decided to increase presence

of police personnel from 40,000 to 80,000. A cease fire agreement was signed between warring Sunni and Shia Sects of Kurram Agency, which led to the reopening of Thall-Parachinar road.

In March, the murder of Federal Minister for Minorities Shahbaz Bhatti in Islamabad, suicide attacks on chief of Jamiat Ulama-e-Islam-Fazal (JUI-F) Maulana Fazlur Rehman in Swabi and Charsadda districts, office of Inter Services Intelligence (ISI) in Faisalabad, a funeral prayer in Peshawar and on a patrolling van of Quick Response force in Hangu depict the resurgence of TTP.

The cease-fire reached out between Sunni and Shia tribes of Kurram Agency seemed to be in jeopardy, as area was once again in the grip of violent activities.

The surge in violence was increased in April.

In FATA clashes erupted between Mangal Bagh-led Lashkar-e-Islam (LI) and an alliance of Zakhakhel militia, dissident faction of LI and Ansarul Islam (AI).

Meanwhile, the February 5 cease-fire



agreement signed between Sunni and Shia tribes of Kurram agency fell apart owing to an increase in attacks on traffic convoys along Thall-Parachinar highway.

Bullet-riddled bodies of Baloch nationalist political leaders and activists continued providing fuel to separatist fervour of nationalist resistant movement.

In retaliation Baloch militants killed a leader of Pakistan Muslim League-Nawaz (PML-N) Khuzdar Chapter, Sardar Mahrullah Umrani.

The assassinations of a former provincial legislature of MQM and a religious scholar of Jamia Binoria left city in a vicious cycle of violence.

Moreover, TTP targeted three buses of Pakistan navy with





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remote controlled explosive devices in Karachi.

With the exception of a suicide attack on the shrine of Sakhi Sarwar in Dera Ghazi Khan, situation in Punjab was more or less peaceful.

The abysmal security situation deteriorated further in May in the wake of former al Qaeda chief Osama bin Laden's killing in Abbotabad as TTP and other al Qaeda affiliated groups unleashed a string of multiple-coordinated reprisal attacks across the country.

These revenge assaults included some high profile attacks like ambush on Pakistan Navy's air base, PNS-Mehran, and target killing of a Saudi diplomat in Karachi, twin suicide bombing of FC headquarters in Charsadda district of KPK, a car suicide bombing of CID police station and assault on vehicles of US Regional Assistant Security Officers in Peshawar.

The upsurge witnessed in militant assaults across the country in the aftermath of Osama bin Laden's killing in June.

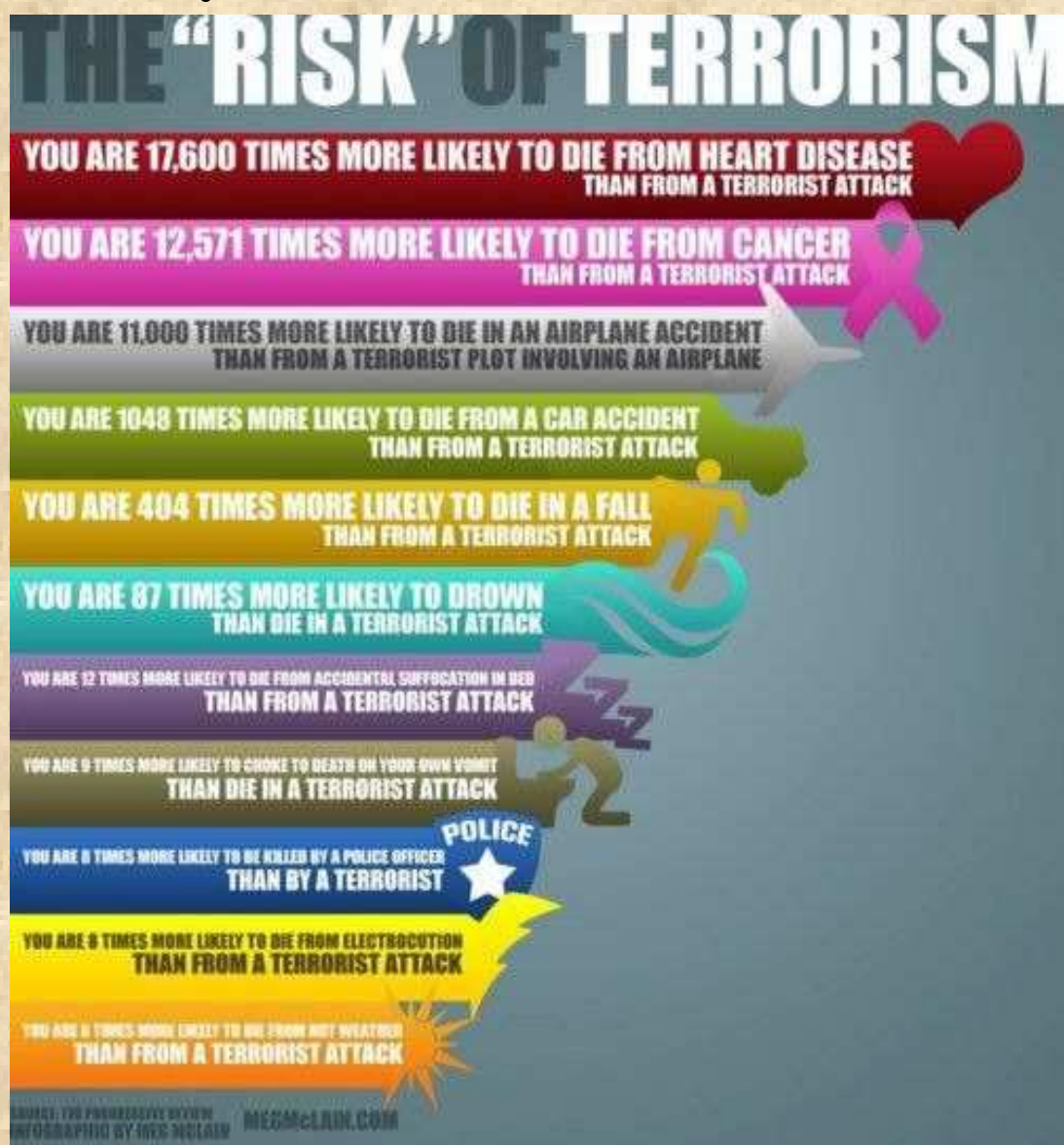
In an important development a dreaded al Qaeda leader and chief of Harkat-ul Jihad al Islamic (HUJI), Ilyas Kashmiri, was assassinated in a June 3 drone strike in South Waziristan agency.

A new trend of large-scale cross-border militant raids from Afghanistan into border areas of Pakistan was also witnessed.

During July violence increased manifold in the country owing to deteriorating security situation.

However, a considerable decrease was witnessed in US drone strikes.

Cross-border militant raids also continued



from Afghanistan into border area of Pakistan, albeit less intensively.

In August a new trend of female suicide bombing emerged on Pakistan's security landscape.

The August 11 suicide attack in Peshawar was third documented incidents in which police confirmed



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involvement of a woman suicide attacker in Pakistan.

The month of September saw an increase in cross border militancy, from Afghanistan into Pakistan's tribal areas.

Pakistan army deployed regular army troops in border areas adjacent to Upper Dir, Lower Dir and Chitral.

After a series of high profile attacks by the Haqqani Network against the US forces in Afghanistan in October, American political and military leadership increased diplomatic pressure on Pakistan to destroy the hideouts and sanctuaries of the network in North Waziristan along with intensifying drone strikes in the tribal region.

The rival factions in Kurram Agency signed a peace agreement to restore peace in the area.

The November 26 Nato air strikes on two Pakistani military check posts in Mohmand

Agency in FATA, which resulted in killing of 26 Pakistani soldiers, subsequent suspension of land route supplies to Nato forces stationed in Afghanistan, and vacation of Shamsi Airbase by the US on Pakistan's demand, not only further strained Pakistan-US relations but also added to Pakistan's security concerns about its western border with Afghanistan.

In December around ten people were killed and over 30 others injured when a powerful car bomb went off on the Arbab Karam Khan Road in the provincial capital.

Twenty-seven militants and two soldiers were killed in clashes between militants and security forces and bombing by warplanes in Orakzai and Khurram agencies.

Around 14 persons including women and girls were killed in Gujranwala on property dispute.

**About the last graphic:** Since this is rather hard to see, been passed around the internet a bit, here is what the infographic statistics say:

- You are 17,600 times more likely to die from heart disease than from a terrorist attack.
- You are 12,571 times more likely to die from cancer than from a terrorist attack.
- You are 11,000 times more likely to die from an airplane accident than from a terrorist attack.
- You are 1,048 times more likely to die from a car accident than from a terrorist attack.
- You are 404 times more likely to die in a fall than from a terrorist attack.
- You are 87 times more likely to drown than from a terrorist attack.
- You are 12 times more likely to die from accidental suffocation in bed than from a terrorist attack.
- You are 9 times more likely to choke to death on your own vomit than from a terrorist attack.
- You are 8 times more likely to be killed by a police officer than from a terrorist attack.
- You are 8 times more likely to die from electrocution than from a terrorist attack.
- You are 6 times more likely to die from hot weather than from a terrorist attack.

Source: <http://motleynews.net/2011/09/24/infographic-the-risk-of-terrorism/>

## Al Qaeda 2012: Will it be resurgence or defeat?

Source: <http://selectedwisdom.com/?p=507>

Al Qaeda is not dead yet, but it's not nearly as strong as it was one year ago. Al Qaeda encountered its worst year ever in 2011 losing countless key leaders in Pakistan, Yemen and Somalia. Meanwhile a host of Arab revolutions unseated dictators long labelled by al Qaeda as apostate tools of the West. Al Qaeda played no part in these 2011 uprisings and

gained a host of Islamist group competitors in the aftermath of these revolutions.

Thus, 2012 will constitute al Qaeda's sink or swim year. Al Qaeda must transform and reinvigorate its base of support or will likely be crowded out by the advances of alternative Islamist groups taking control of Arab governments.



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Despite recent setbacks, al Qaeda does have some potential avenues for re-emerging in 2012. Overall, if al Qaeda does regain its footing, I'm guessing it will be in a largely new form, in parallel rather than in coordination with its traditional senior leadership. I'll focus on this more in two upcoming posts. But for now, here are the al Qaeda hotspots (outside of Pakistan) still warranting concern. I placed them in order based on most concerning to least concerning based on my weighted ranking of each group's operational freedom, estimated resource support, and relative talent level. (This is a quick swag similar to this method from a few months back)

1. *al Qaeda in the Arabian Peninsula (AQAP)* – The loss of Awlaki and other key propagandists reduced the Yemen AQ affiliate's global outreach and international operations. However, AQAP's insurgency against the Yemeni state continues and they've been able to hold territory for sometime. Given a relatively stable safe haven, AQAP retains a base of talent which will likely allow them to project attacks outside the region in the future.
2. *al Qaeda in the Islamic Maghreb (AQIM)* – AQIM appears to have picked up its attacks regionally in the past year and likely gained some weapons and recruits in the fallout of the Libyan revolution. As seen by their reliance on kidnapping operations, AQIM remains starved for resources. While the Sahel provides them a safe haven, it's also a long way from targets and difficult to survive in. New partnerships between Sahel countries like Mali and Algeria suggest a renewed CT focus on this node which may inhibit their growth in 2012.
3. *Re-emerging al Qaeda in Syria/Anbar, Iraq* - While its still too early to tell, Syria may be the most concerning opportunity for AQ's re-emergence – a perfect opportunity really. Syria is a bloody fight against a declared apostate regime combined with a renewed base of support in Western Iraq where Sunnis may be contemplating a civil war with a Shia majority central government. AQ has lessons learned from jihadi participation in the Syrian of 1976-1982 (See "The Vanguard and Muslim Brotherhood Operations in Syria" section from Harmony and Disharmony by Joe Felter, Jacob Shapiro, Brian Fishman and Jeff Bramlett) and a network of support left from shipping foreign fighters into Iraq. Likewise, donations in men and money should be easy to come by for fighting in Syria and/or Iraq.
4. *al Shabaab in Somalia* – I'm not sure what it is, but Shabaab always seems to get derailed by local politics that trump bigger al Qaeda goals. Shabaab will continue to pose a threat in the Horn of Africa but the interventions of Kenya, Ethiopia and the U.S. indirectly, combined with constant resource constraints, appear likely to check Shabaab's growth. It'll be interesting to see how the Kenyan incursion into Somalia plays out in 2012.
5. *al Qaeda in Libya* – With the dust settling after the fall of the Qadhafi regime, veteran Libyan AQ fighters may be slipping into eastern Libya and joining old remnants of the Libyan Islamic Fighting Group (LIFG) and the militias of Darnah. I'm still not convinced this will emerge as a serious AQ threat as resources will likely be limited to the group. Likewise, there are competing tribes that may be willing to take on AQ affiliated militants if coaxed a bit. Only time will tell, but there appears some reason to believe AQ will grow here.
6. *al Qaeda in the Sinai Peninsula* – A new potential group emerging in the vacuum of the Egyptian revolution is al Qaeda in the Sinai Peninsula. This is a smart bet for AQ as the Palestinian-Israeli issue may be the remaining valid AQ ideological tenet for fighting the West. Many of AQ's remaining leaders come from Egypt and courting anti-Israel popular



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support might be a way for AQ to infiltrate an Egyptian revolution they missed. However, Egypt's newly

elected Islamists may frown on a violent group drawing attention from the West.

### Who are the five Al Qaeda terrorists who transited Romania

Source: <http://cotermola.com/2011/12/31/who-are-the-five-al-qaeda-terrorists-who-transited-romania/>

The five terrorists who have transited Romania are accused of several attacks against U.S. troops in Falujjah. Manaf Khalif Asi Sanad Al



Karbouli was chief operative emir of Al Qaeda in 2003-2006 and was involved in several attacks against U.S. troops. Farid Omar Al Ahmed Al Uwaid Karbouli helped mujahideen in Iraq. Omar Kh. Asssey attacked U.S. military convoys in Falujjah and was accused of torturing a Jordanian citizen, who worked for the U.S. military. Muntasier Kh. Aass was directly involved with killing Iraqis accused of collaborating with the U.S. Army.

Romanian DIICOT prosecutors charged Iraqi Asae Mohamad Ali Dulaimi, accused of being linked to Al Qaeda terrorist organization. Prosecutors presented evidence against Iraqi citizens: Omar Farid Farid Ahmed alias Omar Al Ahmed Al Uwaid Karbouli, Falah M. Sanada Aces Salem Khalifa Al Manaf alias Karbouli; Muntasier Kh. Aass alias Omar alias Muntasir Atla Ehud Klef Aasi The Karbouli, Aqeel Mohammed Omar Dhuyab and Kh. Asssey were involved in terrorist activities in Iraq, working for Iraqi Al Qaeda terrorist entity – AQI. Al Dulaimi knew about their involvement in terrorist activities, helping them to leave Iraq where some of them committed acts of terrorism. In a parallel investigation, Romanian DIICOT unit prosecutors, asked for data and information, requesting

assistance in criminal matters from judicial authorities of the Republic of Iraq, the Hashemite Kingdom of Jordan, Sweden and the Republic of Hungary.

According to COTERMOLA sources, Greek intelligence services also had an important role in the capturing of Al Dulaimi and in tracking and revealing this terrorist network. The information is not yet confirmed by the Romanian authorities.

Iraqi citizen FUOAD Obeid AHMAD aka AL KARBOULI Fuad, operated in Romania under the fake identity "M. HOSSIEN FWAD". He was questioned as a witness at the request of DIICOT unit, on



12 May 2009 by prosecutors in Sweden. This witness admitted he knew AL DULAIMI A. A. MOHAMAD under the identity "LOAY ALI ASI SANAD AL-KARBULI". He also said he knew AL DULAIMI's brothers, and declared that they are cousins with MANAF KHALIF ALI ASI SANAD AL-KARBOULI and MUNTASIER KHALIF ALI ASI SANAD AL-KARBULI, indicating Manaf Khalif Asi Sanad



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Al Karbouli as chief operative and emir of Al Qaeda cell between the years 2003 to 2006. The witness said he was aware that Al Dulaimi was arrested several times by the military in Iraq and that at that time, he lived in Hungary. The witness also stated that UMAR FARID AHMAD AL-UWAID AL-KARBULI was a member of Al Qaeda.

**The witness said that LOAY ALI ASI SANAD AL-KARBOULI helped 90 percent of Iraqis in Romania to obtain false passports and shipping documents, and some of them were involved in terrorist activities.**

The witness told the Swedish authorities, Omar Farid Al Ahmed Al Uwaid Karbouli fought for Al Qaeda as a member of the terrorist organization, also helping the mujahideen in Iraq, after which he embezzled money from Al Qaeda, which punished him for this action.

The witness said he was kidnapped by Al Qaeda fighters, while in the city of Homs, Syria and was tortured because he stole from Al Qaeda organization the amount of 100,000 U.S. dollars. In return for his release, his mother would have paid the money demanded by the kidnapers as a reward.

Witness MUNTASIER KHLEF ASI declared more details about their terrorist activities. According to his testimony, OMAR KH. ASSEY is cousin of ZYAD KHALAF AL KARBOULI (important member of Al Qaeda) and that OMAR KH. ASSEY executed in 2005, a terrorist attack on a convoy for the Iraqi police, consisting of 12 cars that came from Jordan to Baghdad, killing all members of the convoy. The captured vehicles were given to the Al Qaeda emir responsible for the FALUJJAH area.

*The witness also said they **attacked a convoy of 2-3 cars that traveled from Jordan to Iraq, which was supposed to belong to the Israeli services, killing all the people in the vehicles.***

They also kidnapped, on the Jordanian territory, a Jordanian citizen under

suspicion of working with the U.S. forces, they tortured and finally killed him, in Iraq.

About Omar Farid Ahmed, the witness said he was part of Al Qaeda and was appointed interim emir for AL QAIME area and was also responsible for foreign fighters brought in to fight for Al Qaeda. The witness said he personally saw Omar Farid Ahmed, in 2004-2006, involved in terrorist activities, wearing a mask and gun, together with Al Qaeda fighters in uniform. He also said he saw Omar Farid Ahmed in Bilal Shuhada area, along with other Al Qaeda fighters, attacking U.S. troops with rocket launchers.

Iraqi citizen ZYAD KHALAF AL KARBOULI was under investigation of Romanian, Hungarian, Swedish and Bulgarian investigators. He was known as a prominent Al Qaeda leader in the Jordan-Iraq border zone. ZYAD KHALAF AL KARBOULI was captured by Jordanian Special Forces, the Jordanian Military Court sentenced him to death in Jordan on 18 June 2008.

### **Al Qaeda terrorist arrested in Romania**

**A terrorist member of the Al Qaeda group was arrested by special intelligence/investigation unit DIICOT in Romania and will be prosecuted.** Dulaimi Mohammad is a native of Iraq, and is accused of five other Iraqis helped to hide in Romania. Also, the Iraqi citizen is accused of terrorism activity in Romania, according to national laws, announced Romania TV, on its website rtv.net. Al Dulaimi helped five members of an Al Qaeda cell. The five are wanted for committing acts of terrorism in the name of the organization and using false identities. They are no longer present in Romania. Iraqi arrested terrorist set up four companies in Romania in order to help his countrymen to enter and leave the country and was caught by authorities in cooperation with intelligence services in Iraq, Hungary, Bulgaria and Sweden. He was indicted for setting up an organized criminal group for smuggling and illegal migration activities, being accused for helping at least 20 other foreigners to transit Romania, targeting Western Europe.



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*Mircea Opris, former investigative journalist, is a counterterrorism analyst for COTERMOLA GRYPHON Think Tank and security consultant at Israeli Protection Specialist. Mircea Opris graduated from the The Centre for the Study of Terrorism and Political Violence at Saint Andrews University, UK. As a counterterrorism analyst, he is founder of the Romanian-based COTERMOLA GRYPHON Think Tank, dealing with counterterrorism, money laundering and organized crime monitoring. Mircea Opris is also founder of the Eastern European Counterterrorism Initiative, an international network of professionals in the field of counterterrorism, focused on Eastern Europe, the Balkans and North Africa.*

### The Rise and Fall of Al-Qaeda: Debunking the Terrorism Narrative

Source: [http://www.huffingtonpost.com/fawaz-gerges/the-rise-and-fall-of-alqa\\_b\\_1182003.html](http://www.huffingtonpost.com/fawaz-gerges/the-rise-and-fall-of-alqa_b_1182003.html)

The popular uprisings in Tunisia, Egypt, Libya, Syria, Yemen and Bahrain have not only shaken the foundation of the authoritarian order in the Middle East, but they have also hammered a deadly nail in the coffin of a terrorism narrative which has painted Al-Qaeda as the West's greatest threat. At least, they should have.

Yet despite Osama bin Laden's killing in May, the dwindling of his group to the palest shadow of its former self and the protest of millions across the Arab world for whom the group never represented, Al-Qaeda holds a grasp on the Western imagination. Few Americans and Westerners realize the degree to which their fear of terrorism is misplaced, making closure over to the costly War on Terror difficult, if not impossible. Shrouded in myth and inflated by a self-sustaining industry of so-called terrorism "experts" and a well-funded national security industrial complex whose numbers swelled to nearly one million, the power of Al-Qaeda can only be eradicated when the fantasies around the group are laid to rest.

#### Myth 1: Al-Qaeda has been operational for more than two decades

Contrary to the conventional terrorism narrative, Al-Qaeda has not been a functional organization with the goal of targeting the West for the past 20 years. By the time the American forces expelled bin Laden and his associates from their base in Afghanistan at the end of 2001, Al-Qaeda, as we know it today, was only five years old.

At the end of the Afghan war in 1989, none of the leading figures -- Sheikh Abdullah Azzam, Ayman al-Zawahiri, nor bin Laden -- called for

targeting the United States or the West. Even after the catalyst for change in bin Laden's thinking -- the American military intervention in the Gulf in 1990 and its permanent stationing of troops in Saudi Arabia -- the group did not translate this hostility into concrete action. Rather, it was during bin Laden's time in Sudan in the mid-1990s where he combined business practices with ideological indoctrination.

#### Myth 2: Al-Qaeda has lots of boots on the ground

At its height of its power in the late 1990s, Al-Qaeda had between 1,000 and 3,000 members. Transnational jihadism of the Al-Qaeda variety has, in fact, never had a large constituency, nor a solid base of popular support: Al-Qaeda has never been a viable social movement, but truly a fringe group without mass appeal among Muslim opinion. Contrary to received wisdom, September 11 did not turn out to be Al-Qaeda's baptism by fire, a force multiplier, a game changer. There was no river of young recruits to rise up and join the fight against the head of kufr (impiety) - the U.S. -- as had happened with the Soviet invasion of Afghanistan in the late 1970s. Western intelligence officials believe that there are fewer than 200 surviving members of Al-Qaeda, based mainly in Pakistan and Afghanistan and mostly unskilled composed of cooks, drivers, bodyguards and food soldiers.

#### Myth Three: Al Qaeda has the same philosophy as other militant Islamist organizations



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While distinctions are rarely made between domestic jihadis and transnational Al-Qaeda types, or between Al-Qaeda and politically based Islamists, such as the Muslim Brotherhood, Hamas or Hizbullah, Al-Qaeda, with deep historical roots in Muslim societies, is an ideological orphan within the military Islamist family, an ambitious venture founded and led by a small vanguard. Grouping all these organizations together glosses over a history of ideological struggles within militant Islamist groups and even among Al Qaeda's inner sanctum of leaders over the concept of transnational jihad. From its origins in the late 1950s until the mid-1990s, a period of almost forty years, the militant Islamist movement known as "jihadism" was inward-looking, obsessed with replacing "renegade" secular Muslim rulers with Qur'anic-based states or states governed by the sharia (Islamic law). In the 1990s bin Laden and Zawahiri twisted these ideologies to suit their purposes of fighting the 'far enemy' -- the U.S. and its close Western allies -- which they believed would attract enough followers to build an army and momentum enough for their nearer battles.

### **Myth Four: While Al-Qaeda Central has suffered a defeat with the loss of bin Laden, local 'branches' of Al-Qaeda in Yemen, Iraq, Pakistan, Somalia and Indonesia will continue to try to attack the U.S. and the West**

The material links and connections between local branches and Al-Qaeda Central are tenuous at best: far from being an institutionally coherent social movement, Al-Qaeda is a loose collection of small groups and factions that tend to be guided by charismatic individuals and are more local than transnational in outlook. Most victims are therefore Muslim civilians. Further, these branches tend to be as much a liability for the long term strategic interests of Al-Qaeda Central as they are assets. Abu Musab Zarqawi, the emir of Al-Qaeda in Iraq, proved to be Al-Qaeda Central's worst enemy. He refused to take orders from bin Laden or Zawahiri and, in fact, acted against their wishes, according to his own desires. Like Zarqawi, local groups or franchises -- like Al-Qaeda in the Arabian Peninsula (AQAP) or Al-Qaeda of the Islamic Maghreb -- which the terrorism narrative often paints as being closely aligned and commanded by Al-Qaeda Central in fact have

proven repeatedly that they run by their own local and contextualized agendas, not those set among the inner sanctum of Al-Qaeda Central.

### **Myth Five: The War on Terror has made Americans safer and has decreased the likelihood of attacks on the country**

There is a clear causal link between incidences of homegrown terrorism in the West and the post-9/11 wars fought in Afghanistan and Iraq, and more recently in Pakistan and Yemen. Far from weeding out individual terrorists drone by drone to put an end to Al-Qaeda and its violence, the American offensive since 9/11 has fed into the Al-Qaeda narrative which paints the West as a Judeo-Christian crusader and, ironically, inspired a new generation of homegrown radicals. Despite their apparent tactical success, U.S. counterterrorism measures like drone attacks further fuel anti-American sentiments and calls for vengeance. Yet neither the U.S. national security apparatus nor terrorism experts acknowledge a link between the new phenomenon of bottom-up extremism and the U.S. War on Terror, particularly in Afghanistan-Pakistan.

Further, despite the phenomenal expansion of the intelligence machine as part of the War on Terror, this machine has failed to detect the few serious attacks and plots against the U.S. homeland, such as the Fort Hood, Texas, shooting that left thirteen dead, the so-called underwear bomber plot, or the 2009 Christmas Day bomb attempt, which was thwarted not by one of the almost one million individuals with top-secret clearances employed to find lone terrorists but by an alert airline passenger who saw smoke coming from a seatmate. In the Times Square bombing, an alert vendor called the police after he saw smoke coming out of a parked SUV. Even when the U.S. pays more than \$5 billion for 1 million employees with security clearances to hunt members of Al-Qaeda, absolutely security cannot exist. The security of the West is organically linked to that of the rest of the world. And U.S. leaders must think twice before pursuing counterterrorism measures which alienate Muslim public opinion and breed homegrown terrorists.

The war with Al-Qaeda is over. Western leaders must level with their citizens: Al-Qaeda poses only a security irritant, not a serious threat. Terrorism cannot be eradicated with drone



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attacks or even massive military interventions, all of which are, in any case, costly. Rather than battling against a mythic foe, the U.S. and Western powers should expedite the withdrawal of soldiers from Muslim territories where their presence is a painful reminder of the European colonial legacy of domination and subjugation.

Further, the U.S. and others offer assistance in rebuilding Yemen and Pakistan's institutions and empowering them to address those serious localized threats, yet resist the temptation of turning the struggle into a war between Al-Qaeda and the West. Taking up the anti-Western mantle is the only option for the survival of localized Al-Qaeda groups, and

it behooves the United States and its allies not to give them a chance.

Tyranny, dismal social conditions, authoritarian political systems, and the absence of hope provide the fuel that powers radical, absolutist ideologies in the Muslim world. It is not enough to focus on the violent ideology of Al-Qaeda without devoting sufficient attention to the social conditions that give rise to it. If the Arab awakenings of the past year manage to fill the gap of legitimate political authority, they will annihilate the last dregs of Al-Qaeda and like-minded local branches. Only then will Al-Qaeda, like Osama bin Laden, not only die, but, finally, be allowed to die.

*Fawaz A. Gerges is a Professor of International Relations at the London School of Economics. His most recent book is *The Rise and Fall of Al-Qaeda* (Oxford University Press, 2011). I want to thank my research assistant, Ms. Dania Akkad, for editing the article.*

### The Rise and Fall of Al-Qaeda

Fawaz A. Gerges

Source: <http://www.oup.com/us/catalog/general/subject/HistoryWorld/MiddleEastern/?view=usa&ci=9780199790654#>

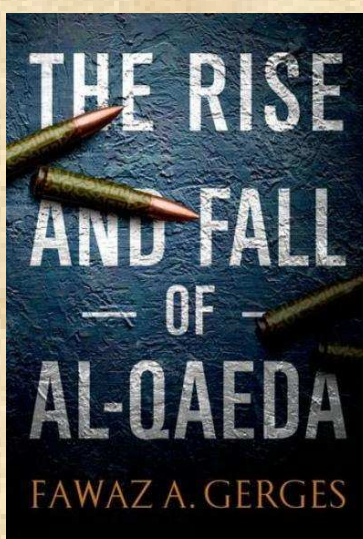
#### Description

In this concise and fascinating book, Fawaz A. Gerges argues that Al-Qaeda has degenerated into a fractured, marginal body kept alive largely by the self-serving anti-terrorist bureaucracy it helped to spawn.

In *The Rise and Fall of Al-Qaeda*, Fawaz Gerges, a public intellectual known widely in the academe and media for his expertise on radical ideologies, including jihadism, argues that the Western powers have become mired in a "terrorism narrative," stemming from the mistaken belief that America is in danger of a devastating attack by a crippled Al-Qaeda. To explain why Al-Qaeda is no longer a threat, he provides a briskly written history of the organization, showing its emergence from the disintegrating local jihadist movements of the mid-1990s—not just the Afghan resistance of the 1980s, as

many believe—in "a desperate effort to rescue a sinking ship by altering its course." During this period, Gerges interviewed many jihadis, gaining a first-hand view of the movement that bin Laden tried to reshape by internationalizing it. He reveals that transnational jihad has attracted but a small minority within the Arab world and possesses no viable social and popular base. Furthermore, he shows that the attacks of September 11, 2001, were a major miscalculation—no "river" of fighters flooded from Arab countries to defend Al-Qaeda in Afghanistan, as bin Laden expected. The democratic revolutions that swept the Middle East in early 2011 show that al-Qaeda today is

a non-entity which exercises no influence over Arabs' political life.





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Gerges shows that there is a link between the new phenomenon of homegrown extremism in Western societies and the war on terror, particularly in Afghanistan-Pakistan, and that homegrown terror exposes the structural weakness, not strength, of bin Laden's al-Qaeda. Gerges concludes that the movement has splintered into feuding factions, neutralizing itself more effectively than a Predator drone.

Forceful, incisive, and written with extensive inside knowledge, this book will alter the debate on global terrorism.

### Features

- A critical and punchy short history, based on extensive research Gerges has conducted for a number of years

- Fawaz Gerges is a public intellectual known widely in the academy and media for his expertise on radical ideologies, including jihadism

### Reviews

- "A masterly and trenchant account of the origins of al Qaeda and its decline after 9/11." --Foreign Affairs
- "An equally important, but little-noted, angle to the [September 11 attacks] that Western readers would do well to ponder." - Bookforum
- "Worth reading" - The Economist
- "A cogent examination of al-Qaeda's historical trajectory that integrates major recent developments into its comprehensive analysis." -Library Journal

## Muslim terrorists give Nigerian Christians ultimatum: Leave or Die

Source: <http://www.energypublisher.com/a/QAMONUWCA31/66230-Muslim-terrorists-give-Nigerian-Christians-ultimatum-Leave-or-Die>

The militant Islamist group Boko Haram has given Christians three days to leave northern Nigeria following attacks on churches and other targets over Christmas that left more than 40 people dead. The ultimatum, issued late on December 31, intensifies the threat to Christians in the Muslim-majority North, parts of which are under a state of emergency after the Christmas violence.

Boko Haram, which wants to impose Islamic religious law across the country, claimed responsibility for a coordinated series of bomb and gun attacks on churches and the security services in five states on Christmas Day 2011. The majority of the fatalities occurred at a Catholic church in Madalla, near the capital, Abuja; around 35 worshippers were killed as explosives were hurled at the congregation as they left the Mass.

It is the second consecutive year that Boko Haram has staged Christmas attacks; in 2010,

32 people were killed in a series of bombings in Jos on Christmas Eve.



Nigerian President Goodluck Jonathan has been criticized for his heavy-handed military response to the Boko Haram threat, which so far appears to operate with relative impunity. The Barnabas Fund - a UK-based advocacy group - warned just before Christmas that the Christmas season would see anti-Christian attacks in various parts of the world. Nigeria is just

one of several countries where such violence broke out.

Nigeria has also been shaken by the government's decision to end its subsidy of fuel. The country had been spending \$7.5 billion for one of the few direct benefits Nigerians enjoyed. The Minister of Petroleum Resources, Diezani Allison-Madueke, said on January 2 that Nigeria's economy will realize benefits right away, allowing for the funding of infrastructure and social programs. Nigerians, on average, earn less than \$2 per day. The Nigeria Labor



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Congress and the Trade Union Congress say eliminating the subsidy is "callous and insensitive." Protesters have taken to the streets, denouncing President Jonathan.

Nigeria produces more than two million barrels of crude oil a day, but must import refined fuel since its refineries lack proper infrastructure and management. Militants operating in oil-rich southern Nigeria have attacked government and oil industry targets for years, demanding that revenues be spent on the poor. These attacks largely stopped after a government amnesty in 2009, but oil companies still battle

tapping and sabotage of their pipelines, sometimes causing massive fatalities.

Elsewhere in sub-Saharan Africa, the imposition of Islamic religious laws is also at issue. For example, in Uganda, Umar Mulinde - a Christian convert from Islam - was assaulted on Christmas Eve. Assailants spewed acid on the Christian pastor, blinding one eye and causing severe burns. He has been an outspoken opponent of introducing Islamic religious laws, known as sharia, to Uganda's courts.



### Global terror: Potential flashpoints in 2012

By Frank Gardner BBC Security Correspondent

Source: <http://www.bbc.co.uk/news/world-16399275>

With much of the Middle East in flux, suspicions intensifying over Iran's nuclear ambitions, a deepening political crisis in Pakistan, and the escalation of jihadist violence in Nigeria there are plenty of potential flashpoints in the year ahead.

There is a distinction between localised conflicts that are largely contained within borders and the kind of global, transnational terrorism that produced events such as 9/11, the Madrid bombings and, in the eyes of many, destructive military ventures like the US-led invasion of Iraq.

ended in the early 1990s following the Soviet pullout and that the Taliban re-emerge in the south, bringing al-Qaeda with them.



#### Afghanistan

Roadside bombs, like this one in Laghman province, have claimed the lives of many Afghan civilians

2011 was another violent year for Afghanistan, with more than 2,000 civilians killed in the first 10 months of the year. The drivers for that violence - insurgency, gun battles, air strikes and criminality - are not about to disappear but the picture is changing. Nato (Isaf) is increasingly positioning itself for the withdrawal of its combat forces by the end of 2014, accelerating the training of Afghan security forces in the hopes they will be robust enough to maintain a semblance of national security and keep al-Qaeda out.

The eventual departure of most foreign forces will not necessarily spell the end of conflict. A worst-case scenario that Nato is working to prevent is that the country reverts to the sort of self-destructive mayhem and warlordism it

#### Pakistan

Logically, an eventual winding down of the Nato vs Taliban conflict in Afghanistan ought to take some of the steam out of Pakistan's own simmering insurgency. But Pakistan's problems run deeper than that, with the country beginning the year with a crisis in relations between its weak civilian government and powerful military as well as a profound mistrust between Washington and Islamabad.

Much has been written in the US media about concerns over the safety of Pakistan's nuclear ballistic arsenal. While these fears may be exaggerated, some militants will be looking to exploit the political chaos and 2012 looks set to be another violent year. Neither the CIA's drone strikes against militants in Pakistan's tribal territories nor al-Qaeda's activities there are likely to stop soon.



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### Iran and the Gulf

Iranian naval exercises in the Gulf in December and early January have ratcheted up regional tensions

International concern over Iran's accelerating nuclear programme is now so profound that



Israel - which feels most threatened by Iran - is having to choose between two deeply unappealing options: living with a nuclear-armed Iran within missile range or launching a pre-emptive strike and starting a war which it may not be able to finish.

Iran has been "wargaming" (planning) for this latter scenario for years and is believed to have in place a number of retaliatory measures should it ever come under full-scale attack. These include Hezbollah in Lebanon unleashing a barrage of rockets on Israel, firing its own missiles at US bases in the Gulf, closing the Strait of Hormuz to shipping and activating sleeper cells in Gulf Arab countries to attack infrastructure and foment unrest. US military officers have so far shown little or no appetite for opening a new theatre of conflict in Iran.

### Iraq

The departure of US combat forces last month after nearly nine years has not been matched by an end to violence. Al-Qaeda's Iraqi

franchise, which many had started to dismiss as a spent and beaten force, has claimed responsibility for the co-ordinated bombings across Baghdad in December that killed more than 60 people. If Iraq's Sunni minority continues to feel disenfranchised and discriminated against by the Shia-dominated government of Prime Minister Nouri Maliki, then there is a risk that violent extremists may be able to attract more recruits to their ranks.

### Yemen

Yemen is currently in slow-motion turmoil. There are clashes almost daily, sometimes between democracy protesters and snipers loyal to outgoing President Saleh, sometimes between supporters of rival tribal groupings, sometimes between the army and Islamist militants in the southern province of Abyan. Yemen's Gulf neighbours, as well as the UK and US, are concerned that with all its problems coupled with economic collapse, Yemen does not become a failed state. 2012 will be critical in determining whether the country can get itself out of its current impasse.

### Somalia

There have been fears, so far unfounded, of an institutional linkup between Somalia's jihadist group, al-Shabab, and its prolific maritime pirates. There is limited co-existence, mainly for financial gain, but no sign yet that Somali pirates would be willing to hand over captured sailors to al-Shabab. Of more concern to the authorities in Britain is the small trickle of British volunteers heading to Somalia intent on volunteering for jihad. Their worry is that sooner or later some will be tempted - as others have in Pakistan - to return to attack Britain instead of fighting and dying in a distant country.

### North Africa

Much of the Libyan capital is still under the control of different militias



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The upheavals across Tunisia, Libya and Egypt prompted by the Arab Awakening have been



followed by only limited outbreaks of violence but certainly in Libya and Egypt, there is a risk that more could follow.

In Libya, it has been proving hard to persuade armed militias to surrender their guns, and there is a real worry that weapons looted from Gaddafi's arsenals have leaked across the southern borders into the hands of militants in Mali and elsewhere. Of greatest concern is the risk of shoulder-launched missiles falling into terrorist hands and there has been a major drive to try to locate them.

Al-Qaeda's franchise in the Sahara, known as al-Qaeda in the Islamic Maghreb (AQIM) is currently holding 12 Europeans for ransom and Western governments have warned their citizens to avoid large parts of the Sahara region for fear of kidnap.

### Nigeria

Last year, attacks by the group Boko Haram - which means "Western education is forbidden" - killed more than 450 people, including at the UN headquarters in Abuja, a radical departure from its previous targets of police, judges and

other local figures. In mid-2011, the US general commanding the Pentagon's Africa Command (Africom) warned there may be growing links between Boko Haram and Aqim. Britain's domestic intelligence agency, MI5, is believed to be on the lookout for any signs of Boko Haram connections amongst Britain's sizable Nigerian community.

### The Olympics

Britain's hosting of the Olympics this summer will, we are told, see "the biggest security operation in this country since the Second World War". Some 13,500 military personnel will be on duty, a Royal Navy helicopter-carrying warship will be docked near the venue, ground-to-air missiles will be deployed and RAF Typhoon fighters will be on standby to provide air defence. None of which should be needed, if all goes to plan. But the Olympics are classed as a "trophy target" for anyone looking to damage Britain and security preparations are being made on the basis of the national terrorist threat being at "severe", the second highest level in a table of five.

### Cyber

Computers belonging to government institutions, commercial organisations and private individuals are coming under constant cyber attack, according to GCHQ, the government's secret communications HQ in Cheltenham. Attacks range from commercial espionage to stealing credit card details to trying to hack into military secrets. To head off the possibility of a catastrophic cyber attack on Britain's infrastructure, the government is investing heavily in protective measures, fighting what it calls "a constant arms race in cyber space".

## Tripping Up Terrorists

By Matthew Harwood

Source: <http://www.securitymanagement.com/news/tripping-terrorists-009393>

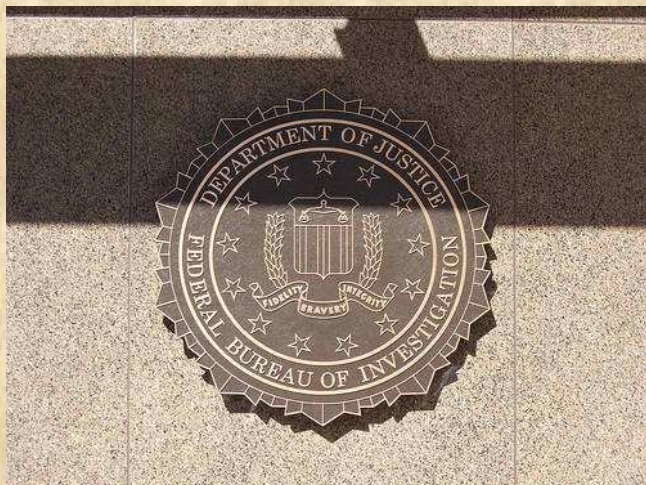
When Khalid Aldawsari purchased a large quantity of the chemical phenol from Carolina Biological Supply of Burlington, North Carolina, he had made a mistake that would doom his terrorism plot. It was January 30, 2011, and Aldawsari was a 20-year-old Saudi national in the United States

on a student visa and living in Lubbock County, Texas. What he didn't know was that the company only received such orders for delivery to businesses. Aldawsari was requesting delivery to a shipping service from which he would retrieve it. That led the



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company to report the purchase as suspicious to the FBI office in Charlotte. As a result of the company's tip, the FBI began surveillance on Aldawsari, which included searching his apartment when he was not at home. The agency discovered that Aldawsari had everything needed to make an improvised explosive device,



including precursor chemicals, lab equipment, wiring, detonation materials, and a hazmat suit. In searching his computer, agents also found that his potential targets included hydroelectric dams, nuclear power plants, and the Dallas residence of former President George W. Bush.

Carolina Biological Supply had known it should alert the FBI thanks to an FBI program known as Operation Tripwire, designed to enlist business in the government's effort to detect terror plots. Tripwire is an example of public-private cooperation that appears to be yielding results.

Established in 2003, Operation Tripwire tasks FBI agents with communicating, preferably face-to-face, with critical infrastructure stakeholders and select businesses to help raise their awareness and teach them what to do if they see something suspicious. In many ways, it's a more focused forerunner to the Department of Homeland Security's "See Something, Say Something" campaign to generate suspicious activity reports from the American public.

"Tripwire is intelligence," says Section Chief Michael Clancy of the FBI's Counterterrorism Division. "It's going out and talking to people...and gathering intelligence and understanding our domain, knowing what the threats are, and using that to inform how we move resources."

Currently about 30 different industries—like beauty supply stores, gun stores, and chemical companies—are actively involved with the program. These are the industries the FBI believes are important to disrupting terrorism plots before they go operational, Clancy explains.

During meetings with agents, Tripwire liaisons are given cards that explain what suspicious activity to look out for. Clancy says there's nothing "earth shattering" on the cards, just commonsense things to be aware of, like customers purchasing large quantities of fertilizer or short lengths of pipe, stockpiling arms, or using cash for large transactions, among other things. The FBI also tells its Tripwire liaisons to talk to their customers, to ask questions, and to listen and observe their responses and to try to sense whether something is amiss. If an interaction or transaction seems unusual, Tripwire participants are told to call the nearest FBI Joint Terrorism Task Force (JTTF), the bureau's counterterrorism investigative offices at 104 locations across the country.

Legitimate terrorism suspicions can also lead to other criminal activity, says Clancy, describing another Tripwire success from his time running a JTTF in Richmond, Virginia. In May 2010, a Home Depot that received Tripwire cards reported four individuals who came into the store and bought up the store's supply of acetone, a common explosive precursor chemical. Then another suspicious activity report came from a nearby Lowe's about the same individuals purchasing acetone. Then a smaller, privately owned hardware store called to report large acetone purchases as well as the individuals' desire to purchase as much acetone as the store owner could get.

"We immediately set up a command post and launched a major investigation, and we tracked these guys down," says Clancy. "They



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weren't trying to build an explosive, they were making synthetic marijuana." Nevertheless, the case showed Tripwire's worth. "We thought that was a real success because people knew, 'I better call the JTTF on this one,'" he says.

The program is resource intensive, because tips require agent follow-up. Clancy, however, could not divulge how much Tripwire costs because there is no line item for it in the FBI budget.

But follow-up is important and a valid use of resources, he says. "We don't leave any leads sitting out there," Clancy explains. "Even the ones that sound absolutely harmless."

The reason behind this, he says, is the specter of homegrown radicalization turning violent fast. "They go from aspirational to actually planning an event within days," explains Clancy.

Not everyone agrees that this is the right approach. Political Science Professor John Mueller, the Woody Hayes Chair of National Security at Ohio State University, argues that suspicious activity reporting programs like Tripwire abandon risk-management methodologies and waste resources. Running down every lead, no matter how absurd, argues Mueller, ignores not only probability but cost.

He's not just talking about the probability of one tip being valid versus one that's not, however. Mueller is skeptical about the value of devoting

resources toward homeland security instead of basic crimes, which are more prevalent. With the probability of being killed by a terrorist at 1 in 3.5 million per year and the probability of being murdered at 1 in 22,000 per year, the government would spend its resources more wisely if it concentrated on solving murders, he says.

Dr. James Carafano, director of the Heritage Foundation's Douglas and Sarah Allison Center for Foreign Policy Studies, does not agree that just because the risk of a terrorist attack is low, it is a waste of resources to try to spot nascent plots. "The problem is what happens when you pass up the one tip that turns out to be the terrorist attack," he says.

Clancy says that the FBI continues to broaden the program's reach to additional industries when new intelligence surfaces that changes the threatscape.

Recently the FBI added construction companies, railways, and farm supply stores to the list. One new addition stands out though: hobby shops. The rationale behind this is the recent arrest of a 26-year-old Massachusetts man, Rezwan Ferdaus, who plotted with undercover FBI agents to attack the Pentagon and the U.S. Capitol using explosive-laden model airplanes.

Private security professionals not aware of Operation Tripwire should call their local JTTF, and see how they can get involved.

### Thirty U.S. car dealers caught in Hezbollah terror-financing scheme

Source: <http://www.homelandsecuritynewswire.com/dr20120104-thirty-u-s-car-dealers-caught-in-hezbollah-terrorfinancing-scheme>

Thirty used car dealerships in the United States are currently under investigation for their part in an international money laundering scheme that sent roughly \$300 million to the known terrorist organization Hezbollah.

According to a lawsuit filed by the U.S. attorney in Manhattan, Lebanese money was funneled through North American financial institutions before it was used to purchase used cars in the United

States. The cars were then shipped to West Africa and sold with the profits smuggled back to Lebanon.

The used car dealerships made millions of dollars in the process and federal authorities are seeking to impose nearly \$500,000 in penalties on the Lebanese banks and the thirty U.S. car buyers.

Georges Baaklini, the owner of a used car dealership in Georgia who made \$1.4 million from the scheme,

maintains that he is innocent. Chuck Sylvester, Baaklini's attorney, said,



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“He’s a victim. He’s from Lebanon but has been doing international business for years.” Sylvester claims that Baaklini was unaware of what his customers were planning to do with the vehicle or where the money came from. Meanwhile Hezbollah has claimed no knowledge of the incident.

Sheik Naim Kassem, Hezbollah’s second in command, said the organization does not follow “a religiously prohibited path” to raise money and that the latest accusations were part of U.S. attempts to denigrate Hezbollah’s reputation.

### Bureau of Counterterrorism

Source: <http://www.state.gov/r/pa/prs/ps/2012/01/180136.htm>

“As the threat from al-Qaida becomes more diffuse, it is in the interest of the United States to forge closer ties with the governments and communities on the front lines and to help them build up their counterterrorism capacity. We need to expand our efforts to build an international counterterrorism network that is as nimble and adaptive as our adversaries’. So we have launched a diplomatic offensive to strengthen bilateral and multilateral cooperation on counterterrorism. We have a broad and ambitious agenda, and to carry out this work, I am upgrading our office devoted to counterterrorism to a full-fledged bureau within the State Department.”

*United States Secretary of State Hillary Rodham Clinton, speaking on a “Smart Power Approach to Counterterrorism,” September 9, 2011*



The Department of State announces the establishment of the Bureau of Counterterrorism, fulfilling one of the key recommendations of the Quadrennial Diplomacy and Development Review concluded in December 2010. The Bureau of Counterterrorism will lead the Department’s engagement in support of U.S. government efforts to counter terrorism abroad and to secure the United States against foreign terrorist threats. The new Bureau will assume the responsibilities of the Office of the Coordinator for Counterterrorism.

#### The Challenge

The United States faces a continuing terrorist threat from al-Qaida and other groups and individuals who subscribe to violent extremism. While we have made much progress in combating terrorism since the 9/11 attacks, challenges remain. Together with defense, intelligence, law enforcement, and homeland security, diplomacy and development are critical to keeping America safe. To secure our future, we must continue to strengthen our international coalition against terrorism, build foreign partner capacity to mitigate terrorist threats, reinforce resilience against attacks, and counter the ideologies and ideas that fuel violent extremism around the world.

#### The Mission

The Bureau of Counterterrorism, in coordination with Department leadership, the National Security Staff, and other U.S. government agencies, will develop and implement counterterrorism strategies, policies, operations, and programs. It will lead in supporting U.S. counterterrorism diplomacy and seek to strengthen homeland security, counter violent extremism, and build the capacity of partner nations to deal effectively with terrorism.

#### The Bureau

The Bureau of Counterterrorism will implement its mission by:

- **Developing and implementing counterterrorism strategies, policies, and operations.** The U.S. government has no greater responsibility than to protect the American people. The Bureau of Counterterrorism will play an integral role in meeting this obligation by leading the Department’s engagement to develop and implement counterterrorism strategies, policies, and operations to disrupt and defeat the networks that support terrorism. The Bureau will work to



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safeguard American security interests while promoting our values, including our support for human rights, democracy, and the rule of law.

- **Strengthening counterterrorism diplomacy.** Strengthening existing partnerships and building new relationships is a cornerstone of U.S. counterterrorism policy. The Bureau of Counterterrorism will engage with bilateral partners, regional organizations, and the United Nations to broaden and deepen counterterrorism cooperation. In one of many initiatives, the Bureau will lead U.S. government efforts on behalf of the State Department to support the Global Counterterrorism Forum, a new multilateral initiative focused on setting the international counterterrorism agenda for the 21st century.
- **Strengthening homeland security.** Securing the homeland from external terrorist threats is central to U.S. foreign policy. The Bureau of Counterterrorism will be the principal State Department link with the Department of Homeland Security (DHS) on counterterrorism strategy and operations. The Bureau will work in partnership with DHS, as well as other agencies and bureaus, to strengthen international cooperation on a wide range of homeland security issues including transportation security, the interdiction of terrorist travel, and critical infrastructure protection.
- **Countering violent extremism.** To defeat terrorists, we must undermine their ability to recruit. The Bureau of Counterterrorism will focus the State Department in U.S. government efforts to counter violent extremism, thereby reducing radicalization and mobilization abroad. The Bureau will work to delegitimize the violent extremist narrative, to develop positive alternatives for populations vulnerable to recruitment, and to build partner government and civil society capacity to counter violent extremism themselves.
- **Building the capacity of foreign partners.** The security of the United States depends on the strength of our partners and allies abroad. With capable partners who are able to manage the threats within their borders and regions, the likelihood of U.S. forces being called into action is greatly reduced. The Bureau of Counterterrorism will work with other bureau and agency partners in supporting U.S. government work to build international partner counterterrorism capacity in the civilian sector and will contribute to efforts in the military and defense sectors.

### The Future

Protecting the United States, the American people and our interests abroad will remain a challenge in the 21<sup>st</sup> Century. New terrorist threats will require innovative strategies, creative diplomacy, and stronger partnerships. By establishing the Bureau of Counterterrorism, the Department of State will strengthen its efforts to meet this challenge.

## The Islamist Winter: New Report Suggests Extremist Views Winning in Libya

By Catherine Herridge

Source: <http://www.foxnews.com/politics/2012/01/04/islamist-winter-new-report-suggests-extremist-views-winning-in-libya/>

Revolutionary fighters sit on a truck mounted with a machine gun in the Abu Salim neighborhood of Tripoli, Libya.

The Arab Spring may quickly become an Islamist Winter in Libya, reads a new report circulated among federal law enforcement and written for policymakers on Capitol Hill.

An advance copy of the report entitled "A View to Extremist Currents In Libya" and obtained by Fox News, states that extremist views are gaining ground in the north African country and suggests a key figure emerging in Libya formerly tied to al Qaeda has not changed his stripes.





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"Despite early indications that the Libyan revolution might be a largely secular undertaking ... the very extremist currents that shaped the philosophies of Libya Salafists and jihadis like (Abd al-Hakim) Belhadj appear to be coalescing to define the future of Libya," wrote Michael S. Smith II, a principal and counterterrorism adviser for Kronos LLC, the strategic advisory firm that prepared the report. Belhadj is considered one of the most powerful militia commanders in Libya as head of the Tripoli Military Council. As Fox News reported earlier this year, Belhadj is reported to be a former emir of an al Qaeda affiliate known as the Libyan Islamic Fighting Group or LIFG. Founded in 1995 to set up an Islamic state or emirate inside Libya, it waged jihad against the regime of former Libyan leader Muammar Qadhafi.

On Nov. 3, 2007, senior al Qaeda leaders announced that LIFG had officially joined Usama bin Laden's network, according to the State Department which designated LIFG as a terrorist organization.

Belhadj, who joined the group at its inception, had fought against the Soviets in Afghanistan in the late 1980s. He was arrested in Malaysia in February 2004, reportedly interrogated by the CIA, before he was sent home to Libya. He was released from prison in 2009 as part of a rehabilitation program.

In its report, Smith writes that a 400-page document authored by members of the LIFG in 2009 and widely depicted as a repudiation of al Qaeda and Islamic terrorism in general was largely misinterpreted by both media and policymakers in the West, and that helped foster support for the revolution in 2011.

"The resultant misapprehensions bolstered by insufficient analysis of the LIFG's 'revisions' have likely influenced decisions made in Washington and Brussels since February 17, 2011," reads the report.

This summer, State Department spokeswoman Victoria Nuland was asked by Fox News about Belhadj, his connections to LIFG and whether he had a place within the Libyan transitional government.

"They're going to have to make their own decisions as all of these countries who have been in transition recently have had to make -- whether past action, past affiliation meets the smell test within the principles that they've laid out," Nuland replied.

Smith emphasized that traditionally Libyan operatives have been central to the al Qaeda mission.

"Libyans have been featured prominently in the history of core al Qaeda. Libyan LIFG member



Abu Yahya al-Libi is regarded as core al Qaeda's top Sharia official and many analysts anticipated he would be appointed bin Laden's successor. His brother is Abd al-Wahad al-Qayid, a founding member of the LIFG who was one of the six LIFG leaders who authored the group's corrective studies while imprisoned in Libya."

The Kronos report says that "Libya is of such strategic interest" to al Qaeda that for years it was its own entity separate from its north Africa affiliate -- al Qaeda in the Islamic Maghreb.

Libya was considered important to al Qaeda because of its geographic proximity to Egypt and its perceived ability to "affect the jihadist political situation in Egypt."

For this reason, among others, al Qaeda's new leader Egyptian Ayman al-Zawahiri in April 2011 called on jihadis to prepare to mount an insurgency against any Western forces in Libya.

"I would like to alert my Muslim brothers in Libya, Egypt, Algeria, Tunisia and the rest of the lands of Islam that if the United States and the NATO forces interfere in Libya, it will be necessary for their neighbors ... and the rest of the Muslims to go forth to fight all of the mercenaries of (Muammar) al-Qaddafi and the crusaders of NATO," he said, according to a translation provided by Kronos.

The report, which includes lengthy translations from LIFG so law and policymakers may directly assess the group's stated intentions, also includes a series of questions for consideration. Among them: whether the transitional



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government in Libya is showing a willingness to cooperate with U.S. counterterrorism operations and whether the number of al

Qaeda affiliated militants has grown in Libya since the death of Qaddafi.

*Fox News chief intelligence correspondent Catherine Herridge's bestselling book "The Next Wave: On the Hunt for al Qaeda's American Recruits," published by Crown, draws on her reporting for Fox News into al Qaeda 2.0 – and the new generation of digital jihadists.*

### 35 radical Islamic terror training camps are now openly operating inside the United States

Source: [http://www.libertynewsonline.com/article\\_301\\_31396.php](http://www.libertynewsonline.com/article_301_31396.php)

A radical jihadist group responsible for nearly 50 attacks on American soil is operating 35 terrorist training camps across the nation, but the U.S. government refuses to include the organization on the State Department's list of foreign terrorists. Jamaat ul-Fuqra, known in the U.S. as "Muslims of America," has purchased or leased hundreds of acres of property – from New York to California – in which the leader, Sheikh Mubarak Gilani, boasts of conducting "the most advanced training courses in Islamic military warfare."

In a recruitment video captured from Gilani's "Soldiers of Allah," he states in English: "We are fighting to destroy the enemy. We are dealing with evil at its roots and its roots are America."

Though Gilani and his organization is suspected of committing assassinations and firebombings inside the U.S., and is also suspected of the beheading murder of Wall Street Journal reporter Daniel Pearl in Pakistan, the terrorist camps spread through the country continue to expand in numbers and population.

A documentary called "Homegrown Jihad: Terrorist Training Camps Around the U.S." provides compelling evidence of how "Muslims of America" operates with impunity inside the U.S. In the video,

producers visited some camps, attempted to visit others and interviewed neighbors and local police officials. It also include excerpts of the "Muslims of America" recruitment video.

Get "Homegrown Jihad: Terrorist Training Camps Around the U.S." and share it with your neighbors, your local police officials and your representatives in Congress.

The recruitment video shows American converts to Islam being instructed in the operation of AK-47 rifles, rocket launchers and machine guns and C4 explosives. It provides instruction in how to kidnap Americans, kill them and how to conduct sabotage and subversive operations.

Jamaat ul-Fuqra's attacks on American soil range from bombings to murder to plots to blow up U.S. landmarks. A

2006 Department of Justice report states Jamaat ul-Fuqra "has more than 35 suspected communes and more than 3,000 members spread across the United States, all in support of one goal: the purification of Islam through violence." In 2005, the Department of Homeland Security predicted the group would continue to carry out attacks in the U.S.

"Act like you are his friend. Then kill him," says Gilani in the



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recruitment video, explaining how to handle American “infidels.”

Wall Street Journal reporter Daniel Pearl was attempting to interview Jamaat ul-Fuqra’s leader, Gilani, in 2002 when he was kidnapped and later beheaded. One year later, Lyman Faris, member of both Jamaat ul-Fuqra and al-Qaida, pleaded guilty in federal court to a plot to blow up the Brooklyn Bridge.

Gilani was at one time in Pakistani custody for the abduction of Pearl. Intelligence sources also suggest a link between Jamaat ul-Fuqra and Richard Reid, the infamous “shoe bomber” who attempted to ignite explosives aboard a Paris-to-Miami passenger flight Dec. 22, 2001.

“What we are witnessing here is kind of a brand-new form of terrorism,” says FBI Special Agent Jody Weis in the documentary. “These home-grown terrorists can prove to be as dangerous as any known group, if not more so.”

As WND reported, a covert visit to a Jamaat ul-Fuqra encampment in upstate New York by the Northeast Intelligence Network found neighboring residents deeply concerned about military-style training taking place there but frustrated by the lack of attention from federal authorities.

Muslims of the Americas Inc., a tax-exempt organization, has been directly linked by court documents to Jamaat ul-Fuqra. The organization operates communes of primarily black, American-born Muslims throughout the U.S. The investigation confirmed members commonly use aliases and intentional spelling variations of their names and routinely deny the existence of Jamaat ul-Fuqra.

The group openly recruits through various social service organizations in the U.S., including the prison system. Members live in compounds where they agree to abide by the laws of Jamaat ul-Fuqra, which are

considered to be above local, state and federal authority.

U.S. authorities have probed the group for charges ranging from links to al-Qaida to laundering and funneling money into Pakistan for terrorist activities. The organization supports various terrorist groups operating in Pakistan and Kashmir, and Gilani himself is linked directly to Hamas and Hezbollah.

Gilani’s American headquarters is in Hancock, N.Y., where training is provided to recruits who are later sent to Pakistan for more jihadist paramilitary training, according to law enforcement authorities.

A Justice Department report to law enforcement agencies, prepared in 2006, provides a glimpse into how long Jamaat ul-Fuqra or “Muslims of America” has been operating inside the U.S.: “Over the past two decades, a terrorist group known as Jamaat ul-Fuqra, or ‘Community of the Impoverished,’ has been linked to multiple murders, bombings and various other felonies throughout the United States and Canada.”

Gilani’s “communes” are described by law enforcement as “classically structured terrorist cells.”

Seven of the compounds have been identified as training facilities: Marion, Alabama; Commerce, Georgia; Macon, Georgia; Talihina, Oklahoma; York County, South Carolina; Dover, Tennessee and Red House, Virginia. Other compounds are located in California, Colorado, Texas, Maryland, Ohio, Pennsylvania, Washington, Michigan and West Virginia.

You are now without excuse: See the terrorist training camps in the U.S. with your own eyes. See excerpts of the recruitment video by “Muslims of America” aka Jamaat ul-Fuqra. See “Homegrown Jihad: Terrorist Training Camps Around the U.S.” with your own eyes.

**VIDEO:** [Official Homegrown Jihad Trailer](#)



**The rise of al-Qaeda's franchises**

By Sreeram Chaulia

Source: [http://www.atimes.com/atimes/Middle\\_East/NA06Ak03.html](http://www.atimes.com/atimes/Middle_East/NA06Ak03.html)

The recent series of deadly bombings in Baghdad and Damascus that killed scores of civilians and agents of state have brought the phrase "al-Qaeda" back into the reckoning. The attacks occurred at the tail-end of 2011, a year in which the organization's original kernel was deemed pulverized to irrelevance through American-led global military and financial efforts. The United States military-bereft Iraqi government blamed "al-Qaeda in Mesopotamia" for ghastly serialized explosions that killed scores of citizens, mainly Shi'ites, on December 22. Syrian authorities labeled the suicide car blasts, which claimed over 40 lives and ripped apart top intelligence offices manned by Alawite Shi'ite elites on December 24, as the handiwork of "the al-Qaeda terrorist network".

These incidents, along with evidence of ongoing acts of violence being perpetrated by other radical Sunni Islamist outfits that carry the al-Qaeda tag such as "al-Qaeda in the Arabian peninsula" (Yemen and Saudi Arabia) and "al-Qaeda in the Islamic Maghreb" (Mali, Mauritania, Libya and Algeria) suggest that the franchises spawned from the slain Osama bin Laden's original unit are rising, not losing.

While there is reason to doubt the attribution of terrorist attacks in some countries to phony "al-Qaedas", it would be strategic blindness to assume that the real al-Qaeda's vision and appeal are passed just because of the Arab Spring. Complete democratization in the Muslim world is far from achieved, leaving fertile ground for jihadi elements to recruit and terrorize.

Al-Qaeda-inspired and affiliated terrorist groups such as the al-Shabaab in Somalia, the Haqqani network and the Afghan Taliban in Afghanistan, the Tehreek-e-Taliban and the Lashkar-e-Tayyaba in Pakistan are not just pinpricks with nuisance value but flourishing entities

commanding vast political economies of societal and state support. They are capable of capturing political power or even nuclear weapons systems in some fragile states.

The assessments emerging from various US governmental agencies last year stressed how much al-Qaeda's core body had been "severely weakened" (Defense Secretary Leon Panetta) and was "on a path of decline" (State Department Counter-Terrorism Coordinator Daniel Benjamin).

But it is obvious now that the so-called al-Qaeda of the peripheries is on the ascendant and presents a much more obstinate challenge to peace and security than the tight knit al-Qaeda parent pioneered by Egyptians and Saudis such as Ayman al Zawahiri and Bin Laden.

That progenitor al-Qaeda had a global vision of rolling back US and Israeli imperialism in the post-Cold War era, but the offshoots which are now causing havoc are more localized in their grievances and hit lists.

The latter derive support from longstanding territorial disputes, illegitimate regimes, sectarian hatreds and regional rivalries that predate Bin Laden's internationalist grudges and are rooted in local histories. If the US can take credit for downgrading the strike capabilities of "al-Qaeda central" in one decade, no state or even alliance of states is today in a position to eviscerate Sunni jihadi poisons that are flavored in specific hues and shades of different parts of the world.

Al-Qaeda's franchises and branches in North Africa, West Asia, South Asia and Southeast Asia share broad Salafist ideological tenets and often train and practice coordinated terrorist attacks, but they can ultimately be tackled only at the grassroots in



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their respective societies and regions.

Broad multilateral cooperation at the international level is still required to confine them to their points of origin, but the main solution has to come from societies and states that face their own respective jihadi demons.

In cases such as Syria, Iraq, Algeria and Saudi Arabia, the existence of regimes that are democratic and politically free could be the sole condition needed for local al-Qaeda franchises to be snuffed out. The idea of armed resistance for an Islamist-defined "just cause" is a powerful one that Bin Laden bequeathed to inspire would-be terrorists.

The al-Qaeda branches ramming car bombs into the sanctum sanctorums of state institutions of authoritarian regimes and socially vulnerable urban neighborhoods cannot be reduced to pulp through force. They will arise again and again in one form or the other, giving the al-Qaeda franchises an eternal, "never-say-die" character, unless political freedom and social equality dawn in tyrannical lands.

Another type of al-Qaeda branch and affiliate is that which is nurtured and coddled by states like Pakistan and aimed at democracies like India and fledgling states like Afghanistan. Such terrorist outfits are conservative, not radical, in the sense that they are pawns of military-dominated state establishments.

Their targets are not politically repressive regimes, but enemies designated by their paymasters, who are ironically undemocratic and sometimes un-Islamic in their alliances.

How can al-Qaeda branches dotting the urban and rural length and breadth of a volatile country like Pakistan be made to close shop? Here, the onus falls not on changing the democratic and pluralistic "infidels" like India, whom the jihadis keep wounding through spectacular terrorist attacks such as the "26/11" attacks in Mumbai in November 2008.

Rather, the way out lies in regime transformation in the power centers that sponsor and harbor al-Qaeda sympathizers as instruments to advance strategic state interests.

Can there be concerted multilateral as well as local exertions to democratize an epicenter of al-Qaeda franchises like Pakistan? The acceptability of radical Islam as a mainstream philosophy of life and a guide for militant action is at its pinnacle in Pakistan today.

This is quietly abetted by the country's almighty military and intelligence apparatus. A whole generation of Pakistanis has grown up believing that Sunni jihadis are "freedom fighters" and anti-imperialists, although the reality is that these terrorists are byproducts of a repressive military-intelligence state.

Admittedly, some terrorist organizations in Pakistan have morphed into Frankensteins that are targeting the military for allying with the United States, but this is likely to be a temporary phenomenon. Once Washington downsizes its operations in Afghanistan after 2014, the Pakistani military-intelligence establishment will wear no Scarlet Letter of sinful collusion with "Judeo-Christian" powers.

All Sunni jihadi outfits will then revert to the protection and munificence of the Pakistani military and continue to remain a menace in South Asia and beyond.

Al-Qaeda's reincarnations in franchises connected to specific, parochial issues mean that local wars and disputes are going to be more lethal in the future. The manipulation of terrorist minds and bodies by some vicious state apparatuses has outlived the American "war on terror" and is increasing the impunity with which jihadis are conducting daring attacks that claim scores of lives.

Just because the US has survived without a successful terrorist attack on its soil in the past 10 years does not permit writing off al-Qaeda as a red herring or an illusion. Its offspring and ancestors are both in the



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reckoning due to regional insecurity spirals. Full democratization and sweeping regime replacements in the Middle East and South Asia are antidotes to the hydra-headed phenomenon of al-Qaeda.

While it is fashionable both in the US and elsewhere to tout "political solutions" over military ones to terrorism in the Af-Pak Theater, the scope of political solutions has been limited to power-sharing deals with leaders of terrorist movements.

This discourse has not moved to more drastic terrain such as ushering out conservative, illegitimate and despotic

regimes. But the obstinate persistence of the al-Qaeda brand of terrorism shows that token "political solutions" that do not alter ruling dispensations are doomed.

Besides democratization of ruling systems, solutions also lie in painstaking attitudinal changes in jihad-saturated societies, which cannot happen overnight or fall in our laps without sacrifices. In the coming decade of long struggle with al-Qaeda's branches, we may have to just learn to live with routinised terrorist violence until new political orders slowly supplant old one.

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## NEW BOOK – Terrorist Suicide Bombings: Attack interdiction, mitigation and response

By Mordecai Dzikansky, Gil Kleiman and Robert Slater

Source: <http://www.washingtontimes.com/news/2012/jan/6/book-review-terrorist-suicide-bombings/>

"Terrorist Suicide Bombings" is one of the first books published on countering terrorist suicide attacks from the perspective of police officers with first-hand experience in investigating such operations. Two of the authors are retired police officers. Mordecai Dzikansky served in the New York Police Department for 28 years, with the last five years posted by the department in Israel in 2003 to serve as its first liaison with the Israel National Police, and Gil Kleiman was an Israeli police officer for 23 years, retiring in 2006. Robert Slater, the book's "prose writer," is an American-born journalist who has lived in Israel since 1973.

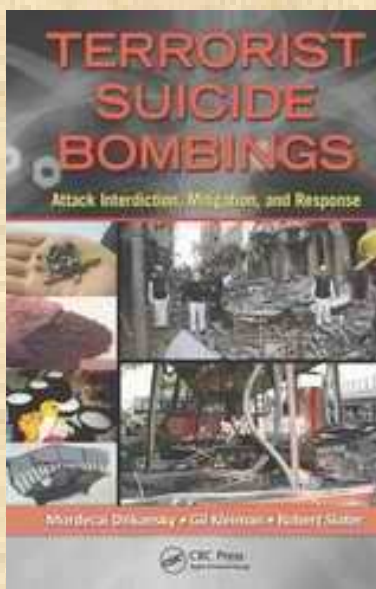
"Terrorist Suicide Bombings" is especially interesting and important because it is unusual to find a book on this subject written by police investigators who share as much of their insider knowledge about the nature of the perpetrators of such attacks. Much of the book is focused on

Palestinian suicide bombings in Israel, with several chapters devoted to attacks involving suicide operations against America, such as those of Sept. 11.

What are the goals of suicide bombings? As Mr. Dzikansky and Mr. Kleiman explain, they do not aim necessarily to "get rid of the enemy completely." Rather, on the way to the "paradise" promised by their group's dispatchers, they wish "to instill a [psychological] sense of fear and create a pervasive sense of instability among the civilian population" that will disrupt the society's normal day-to-day routines.

Can suicide attackers be identified before reaching their targets? Yes, according to the

authors, because they generally follow certain pre-incident procedures. Usually, they are part of a cell, consisting of a handler who places the explosive belt on the bomber, and a driver who



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drops the operative near the attack's location. As the suicide bomber is about to reach the destination, such as a crowded bus stop, he likely will adopt a calm "trancelike stare" so as not to arouse attention.

Other suspicious characteristics worth noting: loitering for long periods without any apparent purpose, being alone, perspiring and hesitant when speaking, avoiding getting too close to security personnel, wearing bulky clothing that is inappropriate for the season (to hide the suicide belt), and constantly checking to ensure that an item (i.e., the trigger mechanism) hidden under the clothes is still there.

In cases of suicide bombers on buses, once such suspicious behavior fails to be noticed, the perpetrator will seek maximum advantage, moving to the center of the bus where detonating the suicide vest's explosives will cause the most fatalities and injuries. The same tactics apply to attacking other targets, such as shopping malls, subway cars and other public spaces. Similar characteristics apply to female suicide bombers, who, the authors note, have become increasingly pervasive in recent years.

How can suicide bombings be defended against? The authors conclude with a set of nine deterrent policies and actions that can help mitigate casualties. These include

empowering domestic intelligence agencies to monitor and arrest individuals with a nexus to terrorism, securing public facilities by installing closed-circuit television cameras, employing private security guards to detect suspicious behavior and, most importantly, educating the public to be alert to their surroundings.

Some of the key players include police officers who serve as the "eyes and ears of the general public," firefighters and emergency medical service personnel who attempt to save the wounded and transport them to hospitals, forensic teams that can identify the blown-up perpetrator, and bomb squad technicians who can reconstruct the type of bomb used in order to identify its possible origins and the terrorist cell that built it.

In addition to proactive law enforcement, the authors point out that the way a country's media is managed is also crucial since governments need to counter terrorists' seeking of positive publicity for their acts and, most importantly, build up the resilience of the country's population to avoid spreading panic and anxiety throughout society.

"Terrorist Suicide Bombings" is an invaluable and authoritative guide for understanding the phenomenon of suicide terrorism and how to defeat it.

*Joshua Sinai is an associate professor for research, specializing in counterterrorism studies, at a Virginia Tech center in Arlington.*

## War on Cancer vs. War on Terror



By Matthew Edlund, MD (Contributing Columnist)

Source: <http://www.lbknews.com/2012/01/06/war-on-cancer-vs-war-on-terror/>

Historians often view wars as ending with winners and losers. We "won" World War II — and the Germans and Japanese lost.

In most human conflicts results are less clear-cut. People don't tend to think of the "War on Cancer," started by President Nixon, and the "War on Terror," begun by the second President Bush, as operating in the same mental realms. Yet both involve shifting enemies, changing allies, and strategies that often appear to succeed before they fail. Both may become more controllable once we see their broad similarities.

Here are a few common traits:

**1. Terrorist individuals and groups, like cancer cells, frequently form anew.** The average human DNA strand may be attacked

hundreds of times an hour. A few chemical and physical assaults may lead to mutations that lead to tumors, as can changes to proteins. Yet most of the time the immune system snuffs them out.



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Extremist thinking is common, and so are extremist groups. Countries like the United States and Britain have hundreds of thousands of “people of interest” to security services. Most will never plan an attack, no matter how much they talk about one. And many that are planned are stopped because enough outside individuals find out about them. They stop it themselves — as occurs in families and close-knit communities — or alert political and security personnel who do.

**2. Terrorists can appear pretty much anywhere — just like cancer cells.** Some human cells, particularly those involved in the fast regenerating arenas like prostate and breast, may prove more cancerous than other tissue types. However any tissue group can form tumors, though some, like bone, tend to have less of them.

Terrorist individuals and groups exist everywhere. Virtually no one expected Norway to experience the major European terrorist attack of 2011. Yet Anders Breivik showed anyplace can experience terrorism, even on a vast scale.

**3. The healthier a population, the later clinical tumors start to appear; the more generally harmonious, egalitarian and open a society, the less terrorist incidents tend to occur.** The Japanese smoke like fiends and often work long hours and shifts. They are also the longest-lived nation in the world. Americans stood transfixed following the Fukushima tsunami-nuclear reactor disaster. The Japanese did not riot or loot, but worked cooperatively. There are few terrorist incidents in Japan.

Civil wars like those in Afghanistan and Iraq often involve many operations of seemingly indiscriminate mass murder. Terrorism thrives in highly sectarian, unequal societies — places where people don't live quite so long even when violent deaths are subtracted from the statistics.

**4. Tumors appear and often simultaneously regress; extremist groups often appear and then dissolve.** It's now thought that innumerable tumors form a single cell or small group of cells and then either self-destruct, get killed by the immune system or are somehow “walled off.” Even much larger tumors spontaneously regress.

Data on breast cancer from Norway, discussed by H. Gilbert Welch in his book “Overdiagnosis,” only makes sense if many mammographically apparent tumors regress on their own — and do so frequently.



Many extremist groups form with violent goals. Yet often they go nowhere.

### **Sledge hammers, surgical strikes, containment**

The Bush “War on Terror” fully got going with the invasion of Iraq. A brutal dictator and his large stock of terror weapons would be violently extinguished as democracy was established freeing tens of millions. It did not work out as planned.

In the 1950s and 1960s, new chemotherapeutic agents transformed oncology. Physicians could do more than just cut out tumors or burn them out with radiation. The new, highly toxic agents, which chemically “bombed” tumors, represented a new watershed, promoting great optimism. President Nixon stated in his State of the Union message of 1971 that he would begin a war on cancer that would be recognized as the most significant act of his administration, bringing a cure within decades. It did not work out as planned.

The “War on Terror” continues. Iraq and Afghanistan remain physically and economically devastated, with politically fragile regimes. The War on Cancer continues. Forty years on, vastly more is known about cancer formation and treatment. Yet the human survival for the most common tumors has not changed appreciably, even if earlier detection occurs.





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### Complexity, cancer, terrorism

Human societies are so complex many aspects of them are poorly understood. The “science” of economics may win Nobel prizes but does not prevent international financial meltdowns. What foments terrorist groups appears to involve an intricate interplay of politics, culture, ideology, social alienation, economics, family life and personality.

The human body is vastly complex. When the Human Genome project was started it was expected that we would find the “gene” for schizophrenia or the few “major genes” provoking major tumors. Instead we got a map of hundreds of genetic markers that increased the rates of common illnesses by 1-5 percent. Complexity is the order of the day. Cancer starts through the interlocking of dozens of cellular systems and is controlled by hundreds more. A few systems may be partly understood. Others — like the immune effects of the tens of trillions of other organisms within our bodies — remain black boxes.

Similarly, police and security forces have recognized the deep interplay of culture and community, personality and social connection that gives rise to extremist groups — and to their dissension and dissolution.

When George Kennan wrote about the Soviet Union in his famous essay of 1946, he argued not for continuing military wars but for containment, a complex strategy engaging diplomacy, economics, culture and ideology, as the way to stop Stalin. When it comes to

cancer, containment seems to be what the body normally does.

The complexity of the issues represented by terrorism and cancer is vast. Yet controlling each may require less than perfect understanding. The key remains information — seeing how systems form, shape and reform themselves — whether they are tumor cells or terrorist groups.

And our greatest new ally may be information science, artificial brains working in combination with our own.

The “cure” to cancer may first occur not in the biological but the information laboratory. Modeling how the different elements of immunity operate — in the brain and other organs — may be enough to contain many tumors, converting them into chronic, primarily controllable conditions.

Similar work in complex information modeling should also prove increasingly useful in the political arena. Many argued after 9/11 to treat terrorism not through “wars” that would give terrorists greater public status but through police actions. More are listening to that argument today.

And societies that are more egalitarian, open and democratic generally do suffer less from extremist acts, though extremist ideologues are tolerated within set limits.

It’s easier to prevent cancer than to treat it. Similar options should motivate political leaders in the fight against terrorism.

### The Unaddressed Threat of Female Suicide Bombers

By Ken Sofer, Jennifer Addison

Source: [http://www.americanprogress.org/issues/2012/01/female\\_suicide\\_bombers.html](http://www.americanprogress.org/issues/2012/01/female_suicide_bombers.html)

Female Palestinian militants from the Al Aqsa Martyrs Brigades, who claim they are willing to be suicide bombers, hold weapons during a

news conference in Jebaliya, northern Gaza Strip, in May 2007.



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In Secretary of State Hillary Clinton's remarks at the launch of the Global Counterterrorism Forum in September 2011, she expressed the need to deepen our understanding of the process of radicalization and terrorist recruitment in order to undermine the appeal of extremism.

Sana'a Youcef Mehadli, a member of the secular Syrian Social Nationalist Party, conducted the first known female suicide attack in April 1985 when she drove a truck filled with explosives into an Israeli Defense Force convoy, killing two soldiers and injuring another two. In addition, 76 percent of attackers from



SOURCE: AP Photo/Hatem Moussa

She's absolutely right, but there's still a gaping hole in the U.S. National Counterterrorism Strategy of 2011's approach toward countering radicalization: the fact that terrorist groups such as Al Qaeda and the Taliban continue to exploit uniquely female motivations as a tool to recruit female suicide bombers to attack U.S. soldiers and international aid workers.

As the number of female suicide terrorists rises, it becomes increasingly important to acknowledge and address this threat to American lives and interests. Doing so would result in a more comprehensive counterterrorism strategy.

We outline the problem below as well as some of the factors that lead women to become terrorists.

### Not a new threat

Female involvement in terrorist groups is not a new phenomenon. Secular groups began using female suicide terrorism nearly three decades ago.

the Kurdistan Workers' Party, or PKK, a separatist terrorist group in Turkey, have been women.

The successful integration of women as suicide terrorists in secular groups led terrorist groups based in religious ideology to begin including women in their operations as well. Al Qaeda and the Taliban have both formed female suicide cells in Afghanistan and Pakistan, according to reports from 2010, culminating in the first female suicide bomber attack in Pakistan on Christmas Day of that year.

### Factors that motivate women to become suicide bombers

Radicalization is largely a gender-neutral process and is usually in response to some combination of economic, political, and social factors, including economic conditions, lack of political rights, or military occupation. Added stressors and psychological factors can transform a radical into a terrorist and, in the most serious cases, into a suicide terrorist.



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For women, the impetuses that drive the motivation to carry out a suicide attack are often unique to the experience of females in conflict scenarios. One unique impetus is the loss of feminine honor and the desire to redeem it.

### *Feminine honor*

Both Dr. Anat Berko of the International Policy Institute for Counter-Terrorism and Lindsey O'Rourke from the University of Chicago note that the idea of the female body as a symbol of honor is a longstanding notion in many communities, particularly as it relates to a woman's perceived sexual purity. While this concept has lost salience in most areas of the world, there are some places—particularly in more conservative Middle Eastern and South Asian communities—that continue to take sexual purity very seriously.

If a woman's honor is compromised through a violation of this purity, such as sex out of wedlock or being a rape victim, the shame is not only placed on her but also extended to her family. Suicide terrorism, frequently viewed by radicals as a form of martyrdom, is seen as a way to gain redemption and restore that honor. The inability to fulfill predetermined social roles, such as bearing children, could also compromise a woman's honor. In some communities, this loss of honor is grounds for divorce and could taint a woman as unmarriageable.

Wafa Idriss, who in 2002 became the first female suicide terrorist of the Israeli-Palestinian conflict, was divorced by her husband because of their failure to have children. Her life during the conflict as a volunteer medic is full of examples of what could radicalize a person, but there are certain details that make her motivations the result of a uniquely female experience—in particular her inability to have children.

### *Inequality*

Besides perceptions of honor, social structures that promote female inequality and dependency provide more pressures that could attract a radicalized female to suicide terrorism. Giving your life to further the cause of radical groups alongside men can be perceived as a way for women to achieve equal social status, a measure that a man would not feel as pressured to take since he does not

necessarily feel or experience social subordination the way a woman might.

Other women are forced to be economically and socially dependent on men and never learn the skills that would allow them to be independent, such as reading or writing. As men continue to die in conflict and women are left to carry on without them, they are inadequately equipped to assume full economic responsibility for their families, resulting in greater strains on them and their families. The increased economic and social pressures have the potential to push a woman over the edge. Sometimes terrorist groups will even make promises to provide for and take care of women's families if they execute a suicide attack.

The best example of this violent reaction to the loss of a male figure is the Black Widows, an all-female Chechen suicide terrorist group associated with the terrorist group Riyad-us Saliheen Brigade of Martyrs. Their primary motivation is believed to be revenge for husbands, brothers, fathers, or relatives who were killed in the two-decade conflict between Russia and Chechnya after the latter declared independence.

### *Why women are such successful bombers*

Women's success in suicide attacks highlights just how little this national security threat is being addressed.

Mia Bloom from the International Center for the Study of Terrorism attributes their success to several factors, most notably the fact that women are still not expected to be involved in violence. The common social assumption that women are inherently weaker, gentler, and more peaceful than men discounts their ability to engage in such lethal activity. That assumption allows female suicide terrorists to be overlooked by counterterrorism efforts and escape thorough security inspections in many conflict zones, despite recent attempts to correct this security lapse.

Attacks by women tend to be more lethal as well. In general, a woman is able to more easily reach high-profile targets and carry out more assassinations due to the lack of security focused on thwarting female suicide attacks and a general unsuspecting attitude toward women.

Indian Prime Minister Rajiv Gandhi's 1991 assassination by a Tamil Tiger female suicide bomber, who was



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close enough to touch his feet when the bomb went off, shows how much closer women can get to their targets in many scenarios.

These unique capabilities are probably why women are responsible for 65 percent of all assassinations among groups that use female suicide terrorists, even though they only make up 15 percent of total suicide bombers in these same groups, according to Lindsey O'Rourke.

In addition to inflicting death and injury on their victims, female suicide terrorists can inflict an additional psychological damage on survivors of the attack. A woman carrying out a suicide attack is considerably more effective in psychological warfare since it cuts against common societal views of women and builds suspicion toward a previously "harmless" segment of the population.

Further, the tendency for media outlets to focus on the gender angle is in larger part a reason why groups like using female suicide bombers—their actions have higher shock value and garner more media attention, and it sends the message of how serious these individuals and groups are about furthering their cause. As is common with these cases, the media led stories about an attack on the Moscow subway in 2010 with the fact that the attackers were women.

Finally, successful female suicide attacks are in part attributable to existing social, cultural, and religious restrictions on gender interactions resulting in weakened security measures toward women. For instance, men are not permitted to touch or pat down women in a way that would allow them to effectively search for explosives.

This problem is exacerbated by the use of both disguises and traditional female garb, such as the niqab, to hide weapons and explosives. Many women—and sometimes even men—disguise their bombs as faux pregnancies.

In 1996 a female suicide bomber from the PKK killed nine Turkish soldiers at a military parade when she detonated what turned out to be a bomb, not a baby. And in 2010 British intelligence discovered that women were being fitted with exploding breast implants, which are nearly impossible to detect at most security checkpoints.

### A persistent problem that needs official recognition

With continuing problems of social equality and 86,000 war widows in Iraq, the impetuses for female suicide terrorism do not appear to be going away anytime soon.

In fact, Debra Zedalis, a terrorism expert from the U.S. Army War College, stated in 2004 that trends were pointing toward an increasing reliance on female suicide terrorists. In 2009 Umayma al-Zawahiri, wife of current Al Qaeda leader Ayman al-Zawahiri, issued an open letter to her sisters in Islam stating that women could contribute to terrorist organizations as suicide bombers. Since that letter went public, a number of websites and publications have emerged encouraging women to take on a more active role in terrorist organizations.

We remain exposed to a growing female suicide terrorism threat without proper recalibrations to our current counterterrorism policy to address women's motivations, tactics, and targets.

Efforts such as the 300-person Daughters of Iraq program, a U.S. military initiative that trains Iraqi women how to pat down and search suspected female suicide terrorists at check points, help mitigate some of the effects of this problem and should be promoted. But our counterterrorism strategy must also identify and address uniquely female motivations for suicide terrorism just as it identifies and addresses some of the gender-neutral motivations for suicide terrorism.

We should answer Secretary Clinton's call to better understand the process of radicalization. But if we want to actually protect our country, we can't simply forget about half of the world's population. Including a female element to our counterterrorism policy also would be a welcome addition to Secretary Clinton's larger push to make advancing women's rights around the world a key piece of a progressive foreign policy. A counterterrorism strategy that works in coordination with a women's rights strategy would be a progressive way to keep us all safer.

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### NEW BOOK: “Terrorists in Love: The Real Lives of Islamic Radicals”

By Dina Temple-Raston, Saturday, January 7, 12:57 AM

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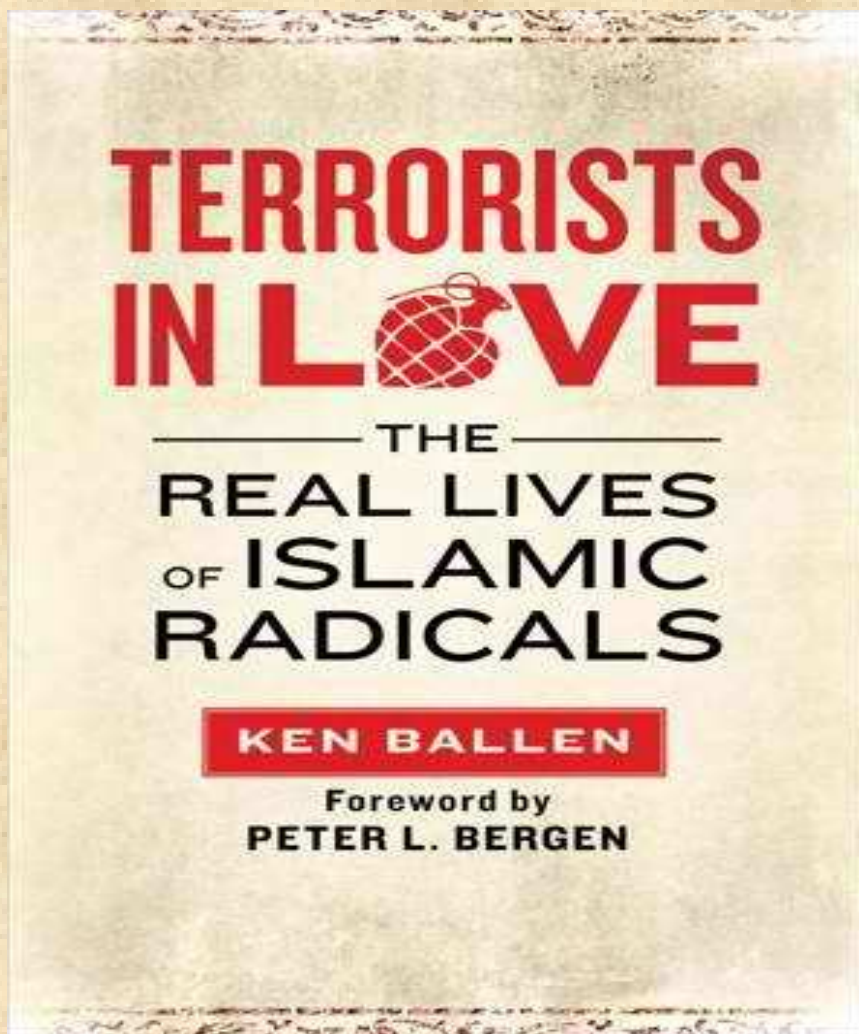
In early November 2011, I was among a small group of journalists who traveled to the naval base at Guantanamo Bay, Cuba, for the arraignment of a terrorism suspect named Abd al-Rahim al-Nashiri. He is the accused mastermind of the U.S.S. Cole attack in Yemen in 2000. After his capture in 2002, al-Nashiri spent four years in a CIA black site, where he was waterboarded and subjected to mock executions. From there, he was sent to Guantanamo Bay. For more than nine years, the only people who saw him were his guards, intelligence officers and his lawyers. So when we arrived for his arraignment, many of us simply wanted to lay eyes on a man who had survived that history.

Ever since the 9/11 attacks, suspected terrorists have become like characters in a novel — larger than life. And that’s part of the reason why, when al-Nashiri strode into the GITMO courtroom, many of us were surprised to see him take human shape. Speaking to his lawyers and the judge, he seemed so unexceptional. At one point he even turned and waved to the gallery. (One of his lawyers told me later that al-Nashiri was told, in no uncertain terms, never do to that again.) The al-Nashiri arraignment was a reminder that most terrorism suspects are ordinary men who swerve violently from expectation.

That’s the message in a new book, “Terrorists in Love.” Written by former federal prosecutor Ken Ballen, it tracks the quotidian events that can lead sensitive young men to violent jihad. Ballen is now president of a Washington-based nonprofit organization called Terror Free Tomorrow, which tries to understand why extremists embrace terrorism. He interviewed more than a hundred Islamic radicals over several years to pin down what turned them from pious young men to religious warriors. About half the interviews took place at a rehabilitation center for violent fundamentalists in Saudi Arabia; the other half were in Pakistan and Indonesia. The result is an unusual atlas of extremism — a riveting,

behind-the-scenes look at the events that turned six young Muslims into terrorists.

The book opens with the heart-wrenching story



of Ahmad al-Shayea, a suicide bomber who, in many ways, has been to heaven and back. On Christmas Day 2004, he became the first suicide bomber in Iraq to survive an attack. Ballen’s description of what was left of Ahmad after a suicide bombing is haunting. “His nose curved to a straight hooked point, like a ski jump. The fingers on his right hand ended in a stump that resembled melted candle wax, while his left-hand fingers were twisted like the roots of the miswak stick jihadis regularly chew in imitation of the Prophet Muhammad. . . . His



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fingernails were little more than yellowed brown stumps, the color of toes infected with athlete's foot."

Ahmad joined the fight because he was having difficulty with an abusive father. Looking for a place where he would be appreciated, Ahmad decided to join fellow Muslims fighting American forces in Iraq. But that, too, proved to be a negative experience. He waited months for a mission. Shuffled from one safe house to another, he was never trained for anything. He was allowed to hold a Kalashnikov, but not to fire one. Finally, he was asked to take a tanker "In what seemed like a matter of seconds, perhaps twenty at most, he made it. His first mission of jihad completed, he could return to the safe house and call home. That was the last thought in his mind as he stopped before the concrete. A powerful explosion, remotely triggered, then turned the back of the tanker, filled with twenty-six tons of liquid explosives, into a powerful fireball that could be seen miles away. . . . 'I see the world melt,' Ahmad said. 'Everything turns black. My hands disappear in more black. My throat leaves me in screams. Hell fire is licking up everywhere. My mind is dead numb. The flames are shooting at me from every direction.' " Ahmad miraculously survived and was taken to a hospital by U.S. medics. Eventually, he became a spokesman for the Saudi ministry to warn young men against the evils of violent jihad. "God has saved me for a purpose," he says today.

Abdullah al-Gilani, a young Saudi, was motivated by lost love. "Abby," as he prefers to be called, first glimpsed Maryam through a window, and it was love at first sight. After weeks of discussions through intermediaries, they eventually meet. They talk, and kiss, and name the many children they will have together. But their future is hobbled by finances. Abby can only raise \$8,000 of the \$20,000 that is Maryam's bride price. The story then takes an O. Henry-like twist. Maryam is forced to marry a rich old man. Abby is inconsolable. Maryam runs away and goes in search of Abby. Abby goes to Iraq in search of a suicide mission that, he is sure, will entitle him to reunite with Maryam in heaven. She disappears; his suicide mission goes awry; and he eventually ends up in a Saudi rehabilitation center — lovelorn, but alive.

truck into a wealthy neighborhood in Baghdad with two other men. He was told that he simply needed to drive the truck to a designated place and park it. On the way to Baghdad, the men teased Ahmad good-naturedly and talked to him like a brother. Ahmad said that for the first time, he began to feel he was part of something. Then, just a thousand yards from where they were supposed to park the truck, the two other men jumped out and shouted at Ahmad to pull the tanker up to the concrete blocks.

Ballen uses these two stories and four others to argue that what all these Islamic radicals have in common is a dearth of love on earth. As he sees it, they turn to God to provide a new, otherworldly love for themselves in heaven. The young men radicalize in an attempt to be good Muslims who can reach that ideal.

While that may apply to the six people Ballen focused on, it is hard to see how a search for love drove the Lackawanna Six, a handful of Arab Americans who traveled to an al-Qaeda camp near Kandahar and returned to the United States just prior to 9/11, or the airport shuttle bus driver who plotted to detonate explosives in the New York subway system, or the alleged U.S.S. Cole mastermind al-Nashiri. The Lackawanna Six, about whom I wrote a book, left the United States as much to find adventure as they did to prove they were good Muslims. Najibullah Zazi, a Denver-area shuttle bus driver, traveled to Afghanistan to fight for his homeland only to be convinced he could do more good for the cause by attacking the New York City transit system. As for al-Nashiri, his motivation may become clear as his defense attorneys argue for his life — his is the first capital case to be heard in the military commissions.

While Ballen's unifying theory for violent jihad falls short, that doesn't diminish the contribution the book makes to the understanding of what drives radical Islamists. "Terrorists in Love" gives the general reader the same sort of insight that journalists gained from watching al-Nashiri at Guantanamo: It reminds us that violent jihadis are driven by confusing and conflicting motivations.



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*Dina Temple-Raston is the counterterrorism correspondent for NPR and the author of numerous books, including “The Jihad Next Door: The Lackawanna Six and Rough Justice in the Age of Terror.”*

### Who are Somalia’s ‘al-Shabab’?

By Christopher Anzalone

Source:<http://africanarguments.org/2011/07/27/who-are-somalia%E2%80%99s-%E2%80%98al-shabab%E2%80%99/>

Harakat al-Shabab al-Mujahideen (Movement of the Warrior-Youth, “Al-Shabab”), the Islamist-insurgent movement that controls most of Somalia south of the autonomous region of Puntland, has its origins in the most radical segment of the military wing of the Islamic Courts Union (ICU). Following the dissolution of the ICU government in late December 2006 in the face of a full-scale Ethiopian invasion backing Somalia’s Transitional Federal Government (TFG), Al-Shabab emerged at the forefront of the Somali armed factions. Its founder was Adan Hashi Farah ‘Ayro, a young Somali militant who had previously traveled to Afghanistan where he met Usama bin Laden. ‘Ayro, a former protégé of veteran Somali Islamist Hasan Dahir Aweys, then the deputy ICU leader, eventually began to operate largely independently of him and the ICU as a whole.

#### Al-Shabab & the Clans

Since its founding, Al-Shabab’s leadership has included members from a fairly diverse array of Somali clans, which has given the insurgency the appearance of transcending the destructiveness of politicized clanism that has fueled, in part, the country’s twenty-year civil war. Al-Shabab’s current leadership includes members of various Hawiye sub-clans such as the Habir Gedir/‘Ayr and Murasade as well as sub-clans from the Isaaq and Rahanweyn clan groups. Despite their criticism of blind clanism, insurgent leaders have not sought to openly combat or neglect the country’s deeply-rooted clan structures. Instead, they have attempted to navigate the complex waters of clan politics and have even mediated inter-clan disputes. Insurgent outreach to the clans has increased since March when the African Union Mission in

Somalia (AMISOM), assisted by the TFG, and Sufi Islamist militias of the Ahlu-Sunnah Wal-Jamaacah movement launched simultaneous



offensives against Al-Shabab in Mogadishu and along the western borders with Kenya and Ethiopia. Faced with mounting battlefield setbacks, insurgent leaders have repeatedly reached out to clan leaders for support. Statements, photographs, and other media materials released by Al-Shabab document this outreach activity. The specific clans and sub-clans that the insurgents have sought to win over are often not identified by name, though in a few announcements of events where specific groups were named. These include a March meeting in Banaadir, the district where Mogadishu is located, between senior Al-Shabab leaders including Hasan Dahir Aweys, and Mudulood/Hawiye clan elders and a June outreach program aimed at garnering support from elders from the Digil and Mirifle sub-clans of the Rahanweyn clan.

#### Insurgent Governance & Leadership Structures

As it began to capture more and more territory in 2008 and 2009, Al-Shabab



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leaders established a fledgling governing structure in districts under its control. Each administrative district, which generally match Somalia's pre-existing districts, is headed by a governor (wali). Sheikh Muhammad Hasan 'Umar Abu 'Abd al-Rahman, for example, is the current wali of Banaadir. Local Al-Shabab administrations include a Shari'a court, offices of zakat, and military units affiliated with either the movement's military wing, the Jaysh al-'Usrah (Army of Difficulty), or its police force, the Jaysh al-Hisbah (Army of Verification). Small and medium-scale public works projects and social programs are administered at the district level, including the building and repair of bridges and roads and the administration of schools, medical clinics, and agricultural projects. The movement also runs training programs for traffic police, preachers and prayer leaders. It sponsors communal 'Eid prayers and festivals as well as competitions for children in Qur'an memorization and recitation. Al-Shabab adheres to a particularly black-and-white interpretation of Islamic law (Shari'a), which seems to have been stripped down to a set of strict social regulations and the implementation of the hudud punishments such as amputations for theft and capital punishment for crimes ranging from murder to spying and rape.

At the top of Al-Shabab's leadership structure is a cadre of senior figures, though the details of the movement's inner workings remain largely unclear due to the lack of reliable information. Al-Shabab is headed, perhaps nominally, by Ahmed Godane, who is usually referred to by his nom de guerre "Mukhtar Abu'l Zubayr." Other senior leaders include the popular Mukhtar "Abu Mansur" Robow, Fu'ad Muhammad Khalaf "Shongole," spokesman 'Ali Mahamoud Rage, also known as 'Ali Dheere, zakat and famine relief committee officials Suldaan Muhammad 'Ali Al Muhammad and Hussein 'Ali Fiidow, and preacher 'Abd al-Qadir Mu'min.

### Response to the Famine

Since at least last autumn, Al-Shabab has sought to address the growing suffering from famine independently of the international community – it banned the World Food Program (WFP) and other international aid organizations from operating in its territory in February 2010. The movement's local administrations have distributed food, water,

medicines, and zakat, the annual charitable donation required of financially capable Muslims, to the poor. They have also conducted campaigns to vaccinate livestock and improve irrigation and farming. In its February 28, 2010 announcement banning the WFP, Al-Shabab accused the aid organization of undercutting local farmers, distributing expired food leading to the spread of disease, and of having "covert political objectives" such as aiding the TFG and Ethiopia.

The famine's sheer scale, however, forced Al-Shabab leaders to relent, or so it seemed, and in early July spokesman 'Ali Rage announced that the ban was lifted and the movement was willing to allow in both Muslim and non-Muslim aid organizations to assist the population. Administrators from the WFP and other organizations quickly said that they were willing to work with insurgent leaders in facilitating the distribution of aid to millions of needy Somalis. However, after the UN declared famine in two districts, Bakool and Lower Shabelle, which are both under Al-Shabab control, insurgent leaders have seemingly backtracked on their original call for international famine assistance. In a July 21 press conference in Mogadishu, Rage accused the UN of having "external political motives" and of politicizing the famine as well as exaggerating its extent. The WFP, which will likely be at the forefront of famine aid in the Horn of Africa, was still banned, he said. Al-Shabab leaders, who have always been suspicious and hostile to foreign intervention in Somalia, were likely not reassured by public statements from U.S. Secretary of State Hillary Clinton that the Obama Administration planned to "test" the movement's willingness to re-allow international aid organizations into the country. Al-Shabab may also be trying to reassert its own role in local famine relief, inadequate though it is. The movement has sought to publicize its famine relief efforts through the release of statements, photographs, and other media. In early July, Aweys visited and worked at a refugee camp in Lower Shabelle that has been built by Al-Shabab. His visit was carefully documented, complete with photographs of Aweys working in the camp's hospital. Despite these carefully orchestrated efforts, the movement's decision to seemingly re-institute its ban on the WFP and other international aid organizations runs the risk of further alienating the local population, growing segments of





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which have already grown tired and more critical of Al-Shabab's harsh form of law and order.

### Transnational Recruitment & Foreign Fighters

Since 2007, Al-Shabab has sought to recruit abroad in order to bolster the ranks of its military wing. Using shadowy networks in Somali diaspora communities in North America, Europe, East Africa, and the Middle East the movement has been able to recruit an estimated 1,000 diaspora members as well as 200-400 non-Somali Muslims. Law enforcement agencies estimate that scores of young Somalis from the United States, Canada, Britain, and Norway have joined Al-Shabab's ranks. These numbers, however, are dwarfed by the hundreds of recruits from in and around East Africa who are believed to have joined the movement. Al-Shabab has extensive and well-established recruitment and support networks in Somali diaspora communities such as the Eastleigh district of Kenya's capital Nairobi. Insurgent media produced by Al-Shabab's Al-Kata'ib (The Brigades) Media Foundation has also been geared at attracting recruits from abroad.

The movement's ability to recruit internationally is a sign of both its strength and weakness. On the one hand, it shows that the movement has successfully established and used recruitment networks in over a half dozen known countries to bolster its ranks with hundreds of new recruits. On the other hand, however, Al-Shabab's need to seek outside recruits is likely a sign that it has been unable to meet its manpower needs solely through domestic recruitment, which calls into question its popularity at home.

### Al-Shabab & Al-Qaeda

From its early stages, Al-Shabab has been strongly influenced by the charismatic persona of Usama bin Laden, the founder of Al-Qaeda Central (AQC). Clips from his audio messages and his picture appear frequently in insurgent videos beginning in 2007 and 2008. The movement's leaders have also continuously spoken about bin Laden with great affinity. On the operational front, AQC members based in East Africa played a key role in training and aiding Al-Shabab in its early days. Chief among these operatives were Abu Talha al-Sudani, Saleh 'Ali Saleh al-Nabhani, and Fazul

'Abdullah Muhammad. All have since been killed – al-Sudani and al-Nabhani in U.S. military strikes, in 2007, 2009, and Fazul Muhammad in June 2011 at a TFG checkpoint. On September 20, 2009 Al-Shabab released a lengthy video entitled *Labbayk Ya Usama* (We Heed Your Call, O' Usama) in which Godane described bin Laden as his "amir" (leader). Other senior Al-Shabab leaders, such as Robow and Rage, have also long publicly pledged their affinity and loyalty to the late AQC founder, who they saw as the representative of global Muslim resistance to Western imperialism and its local clients across the globe. However, Al-Shabab has not, as is often claimed by some analysts and journalists, merged with AQC, nor is it an official AQC affiliate. Rather, Al-Shabab is a largely Somalia-centric Islamist militant movement that has expressed ideological affinity to bin Laden and, recently, his successor as AQC leader, Ayman al-Zawahiri. Even Al-Shabab's July 2010 suicide bombings in Kampala, Uganda were aimed at achieving a local objective, the withdrawal of the thousands of Ugandan soldiers who make up AMISOM's largest contingent. The development of a closer or even a fully operational relationship between Al-Shabab and AQC or its geographically closer affiliate in Yemen, Al-Qaeda in the Arabian Peninsula (AQAP), is possible, particularly if insurgent leaders continue to suffer battlefield defeats and see a closer relationship or merger as a means of staving off more terminal losses.

### Future Trajectory of Al-Shabab?

Al-Shabab currently faces a growing list of major challenges to its continued longevity as the de facto governing force of much of southern and central Somalia. Military setbacks and the mounting pressures of the East Africa famine present the movement with significant difficulties. The movement's harsh interpretation of Shari'a and continued intransigence with regard to international aid organizations also threaten to turn more of the local population against it. Its respite, ironically, has come from the continued ineptness, corruption, and infighting within the TFG, whose leaders squabble over political and economic advantage. As long as the TFG remains an unviable alternative in the eyes of the local population to the insurgent



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movement, it is unlikely that Al-Shabab will disappear.

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### The genesis of terrorism in the Sahara: Al Qaeda in the Islamic Maghreb

By Yvan Guichaoua

Source: <http://www.opendemocracy.net/opensecurity/yvan-guichaoua/genesis-of-terrorism-in-sahara-al-qaeda-in-islamic-maghreb>

In January 2011, a terrorist group self-branded Al Qaeda in the Islamic Maghreb (AQIM) kidnapped a young French NGO worker and his visiting friend in one of the poshest restaurants of Niamey, Niger's state capital. En route to a probable hideout in Mali's mountainous north, the kidnapers and their hostages were stopped by the military intervention of French troops during which the two Frenchmen were killed. This episode is so far the most spectacular action carried out by AQIM which stunningly demonstrated its capacity to hit any target in the vast Saharan zone it has been roaming for years.

The group is now considered a major terrorist threat in the area. Presently, it still holds five European hostages (four French workers of the multinational company AREVA kidnapped in the northern Niger mining town Arlit and an Italian tourist abducted near Djanet in Algeria) and appears to be in no hurry to release them. Many more Europeans have been detained by AQIM since January 2007, the group's official birth date. One of them was executed, another one died in obscure circumstances but most of them have been released in exchange for the payment of generous ransoms. Crucially though, most of AQIM's victims are nationals of the countries where the armed outfit operates: Algeria, Mali, Niger, and Mauritania.

AQIM's operational capacity in the Sahara today is the outcome of a gradual encroachment in a territory to which it did not originally belong. AQIM is the outgrowth of the Salafist Group for Preaching and Combat (GSPC), created by Islamist radicals during the Algerian civil war and repelled southward by Algerian security forces. Historically, it had little social support base it could rely on in the desert. It had little following, too (a few hundred men at most). The core of its combatants is composed of Jihadist fighters trained in Afghanistan and sharing a strong warlike ethos.

How can a violent group sustain itself in a region it is largely alien to? The difficult to control Saharan terrain might be a factor but does not constitute the sole explanation: AQIM didn't fill in a political void. I would argue that the GSPC, which became AQIM in 2007, managed to gain a foothold in Algeria's bordering Saharan countries through a combination of smart business strategies, astute efforts to foster a *modus vivendi* with local populations and, indirectly, permissive circumstances engendered by central government's policies in the region. Importantly, too, taking the name Al Qaeda in the first place was a far from benign move: it almost magically upgraded the disparate gathering of Jihadists to the status of unitary transnational threat, exciting the acronym fetishism prevalent among western policy-makers and media.

The economic and consequently logistical consolidation of AQIM was permitted by the bonanza of ransoms paid by the hostages' home countries but also a deep involvement of the Salafist group in cross-border trafficking. All sorts of commodities travel the desert illegally: food, electrical appliances, and cigarettes but also stolen cars, drugs and arms. Another bountiful trans-Saharan business also consists in transporting human "loads" - as local drivers put it - of African migrants back and forth. Mokhtar Belmokhtar, one of AQIM's most prominent figures, is said to control significant shares of this pervasive trafficking and to extort taxes from other smugglers. Anecdotally, when I asked young inhabitants of Tamanrasset what they knew about AQIM in 2009, the first answers that came up pointed to their reputation as big traffickers and the mechanical excellence of their cars. It is worth noting that AQIM, while probably a big player, does not fully control cross-border smuggling which flourishes throughout West Africa and has



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rapidly become institutionalized, reaching state circles. In the same way, ransom extortion does not just benefit AQIM but also intermediaries and negotiation-brokers connected to states.

Along with carving out a sizeable space in the local political economy, AQIM chiefs built alliances with some local Tuareg leaders, involving sufficient collaboration to let AQIM's activities prosper. Such alliances are by no means the rule and might only be temporary. They owe little to religious or ideological connections (although AQIM figures might have a fanbase among the region's disenfranchised youth) and, more likely, a lot to the micro-politics of parochial and economic rivalries in the area.

Some background circumstances have also helped them: for decades now, sections of the economically and politically marginalized Tuareg society have been taking up arms against their central governments in Niamey and Bamako without achieving much in developmental or political terms. Protracted low intensity insurgency in Mali and Niger's respective northern provinces was not only accompanied by reluctance among some Tuaregs to cooperate with their national authorities but it has also facilitated the proliferation of banditry in the region, providing AQIM with enthusiastic potential subcontractors. Many of the latest kidnappings claimed by AQIM were actually not perpetrated

by AQIM members but by local criminals selling back their catches to the Salafist outfit.

Confronted by AQIM's growing influence in the Sahara, the national authorities of the region and their military backers, France and the United States, have provided discordant responses. The US seem to collaborate actively with Algeria, which has been infuriated by European governments' proneness to cede to AQIM's demands in exchange of the liberation of their hostages. Similarly, Algerian authorities point accusing fingers at the alleged incompetence of the Malian military. Meanwhile, France has developed privileged security cooperation arrangements with Mauritania, Niger, Mali and Burkina Faso, which is not welcomed by Algeria, and whose results remain to be seen. One does not need to endorse conspiracy theories to realise that the countries supposedly involved in the counter-terrorist effort have differing agendas and views over the strategies to follow and their timing.

The spectacular rise of a secular revolutionary movement in Arab countries in the past weeks is certainly not good news for Al Qaeda on a global level. As far as AQIM is concerned though, there is much more to consider than just the weakening of an ideology. The criminalization of the Sahel's political economy might cause more enduring damage than the Jihad.

*Yvan Guichaoua is a West Africa expert on non-government armed groups, currently a researcher for MICROCON*

### Al-Qaeda Members Gripe over Cash Crunch

**By Ian Katz and John Walcott**

Source: <http://www.bloomberg.com/news/2012-01-09/al-qaeda-members-gripe-over-cash-crunch-as-u-s-goes-after-terror-funding.html>

Few people noticed Saudi Arabia's three-day conference in September on disrupting terrorism financing. For a team at the U.S. Treasury Department, though, it was a long-sought victory in the fight against al-Qaeda.

While drone attacks and covert operations such as the raid that killed Osama bin Laden get headlines, terrorism relies just as much on cash as on car bombs. With that in mind, a cadre of intelligence analysts at the Treasury wage a quiet war to choke off terrorists' money supplies.

"The financial dimension is critical," said Daveed Gartenstein-Ross, a terrorism researcher at the Foundation for Defense of Democracies in Washington, in a telephone interview.

The Saudi session brought together regional officials involved in countering money laundering and terrorism. Conducted with the help of officials from the Treasury and other U.S. agencies, the conference provided training in financial investigative techniques.



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Like the Saudi meeting, many of the efforts to obstruct terrorist financing draw little public notice, particularly because it is difficult to show that they may have helped prevent attacks. Still, less money has been flowing from wealthy Persian Gulf sympathizers to the terrorist group's remaining leaders in Pakistan since the Saudis got serious about terrorism financing in recent years, said a senior U.S. intelligence official, who spoke on the condition of anonymity because intelligence issues are classified.

### Money Gripes

Al-Qaeda's depleted core in Pakistan has been forced to economize, said a second U.S. intelligence official, who also spoke on the condition of anonymity for the same reasons. The anti-financing efforts have forced terrorist groups to reduce spending on training, recruiting and payments to terrorists' surviving family members, he said. The U.S. has detected many more complaints from al-Qaeda members about money shortages, he said.

By 2009 and 2010, "we were able to say that al-Qaeda was in its weakest financial condition since 2001," said David Cohen, the Treasury's undersecretary for terrorism and financial intelligence.

To be sure, the effort to stem the financial flows is just part of a broader struggle. And access to money isn't always important because terror plots can cost as little as a few thousand dollars to initiate, as demonstrated by a parcel-bomb plot in October 2010, which involved printer-toner cartridges packed with explosives in an failed attempt to bring down a Yemen-to-Chicago cargo flight.

The May 1 raid by U.S. Navy SEALs on bin Laden's compound in Abbottabad, Pakistan, highlighted two prongs of the U.S. fight against terrorists: military force and financial intelligence. The action yielded financial records and other intelligence, Cohen said.

### Al-Qaeda Funders

"If I were a donor to al-Qaeda, I'd be worried about the fact that there were a lot of documents that were picked up in Abbottabad," he said in an interview.

Cohen, 48, who oversees the Treasury's Office of Terrorism and Financial Intelligence, is the point man in the battle to prevent terrorist groups from raising, laundering, moving, spending or investing money. The office has

evolved since its 2004 creation to become a crucial element of U.S. anti-terrorism efforts.

Since September, Cohen's office has imposed sanctions or taken related punitive measures against Iran and Syria, two states designated by the U.S. as supporters of international terrorism, as well as against members of al-Qaeda and affiliates.

### 'Gum Up the Works'

The office, known as TFI, seeks to "gum up the works" of terror groups and "isolate bad actors from the international financial system," Cohen said.

The Treasury is the only finance or economy ministry that conducts its own intelligence analysis, he said. Its analysts, working with intelligence officials from the CIA, the National Security Agency, the State and Defense Departments and other agencies, are fighting a running battle, one in which Saudi Arabia's changed attitude toward fighting terror financing is important.

The Saudis were half-hearted partners in the aftermath of the 9/11 attacks on New York and Washington, said the first U.S. intelligence official, who said they weren't convinced that Saudi Arabia was an important source of al-Qaeda's funds. That attitude changed after Saudi Arabia was the target of a bombing in 2003 that killed 35 people.

### Saudi Shift

As the Saudis began to crack down on terrorism at home, they paid more attention to Islamic terror groups' funding channels, the official said. In 2010, the highest religious authority in Saudi Arabia issued a fatwa, an Islamic order with the force of law, against financing terrorism. Last May, the kingdom for the first time publicly tried detainees suspected of raising funds for terrorists.

Those actions were "the product of many factors, and a lot of work on the issue over the course of several years," said Stuart Levey, 48, Cohen's predecessor and the first head of the Treasury's terrorism office. "Countries ultimately do things because they think it's in their own interest to do them."

Kuwait and Qatar have been slower to cooperate. Both remain "permissive environments for extremist fundraising" and Kuwait is the only country in the Gulf region not to have criminalized terrorist financing, Cohen



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said at a conference in Washington to mark the 10th anniversary of the Sept. 11 attacks.

### Illicit Actors

In addition, terrorists have turned to cheap, informal money-transfer methods that can be hard to penetrate -- such as couriers and Hawala networks, which provide informal channels for moving funds -- as the U.S. and its allies have become better at intercepting international phone calls, e-mails, and electronic fund transfers.

"Illicit actors are now savvy to the fact that the formal financial system is quite well-monitored, so they look for other ways, and it's hard to keep up with that," Levey said in an interview. "It's a bit of a cat-and-mouse game."

As the number of al-Qaeda's financiers has diminished and money transfers have become more difficult, the group's affiliates in sub-Saharan Africa, Yemen and Iraq have been forced to become self-sufficient, said the second intelligence official, and there's less profit-sharing going on among them and the core group in Pakistan.

In sub-Saharan Africa, al-Qaeda in the Islamic Maghreb now relies heavily on ransom from kidnappings. Al-Qaeda in the Arabian Peninsula, based in Yemen, supports itself by extorting money in neighborhoods where it's taken control, the official said. Somalia's al-Shabaab controls a third of the country's ports, in addition to making money from piracy and local rackets, he said.

### 'Missionary from Hell'

"What concerns me the most, particularly among al-Qaeda affiliates, is resorting to crime to raise funds, and in particular kidnapping for ransom," said Daniel Glaser, the Treasury's assistant secretary for terrorist financing.

If a man is known by the company he keeps, Glaser is known informally at Treasury as the department's "chief thug" for his zealous approach to talks with North Korean, Iranian and Syrian officials. He prefers "missionary from hell," a nickname that South Korean media gave him in 2009 during talks on Iran and North Korea.

Glaser, 43, has been with the office since its inception, and he recalls when it had a half-dozen people, compared with 42 today.

"It wasn't even clear who we reported to," Glaser said. "We were basically given a year to prove that the office should exist at all."

### Watershed Moment

The office had its watershed moment in 2005, when it targeted a little-known company in Macau called Banco Delta Asia SARL. The bank was a front company for the North Korean regime, bolstering Pyongyang's finances by laundering money and passing counterfeit U.S. currency, Glaser said. The U.S. designated it a primary money-laundering concern, and Macau, the former Portuguese colony, froze about \$25 million in funds tied to North Korea. Glaser and Levey traveled to countries including Vietnam and Mongolia to explain the situation.

"We never said, 'Don't do business with North Korea,'" Glaser said. "We said, 'If you want to do legal business with North Korea, go ahead and do it. And by the way, the line between licit and illicit business with North Korea is so thin as to be nearly invisible.'"

By early 2006, North Korea was "almost entirely cut off from the international financial system," he said.

### 'Unsung Development'

Glaser spent a decade leading the U.S. delegation to the Financial Action Task Force, an inter-governmental group that pushes nations to fight terrorism and money laundering. The task force, which Cohen calls an "unsung development" in the anti-terror fight, has grown from 16 members in 1991 to about three dozen today, including a half-dozen Persian Gulf states, Russia and Mexico. While U.S. financial sanctions, which are now imposed by TFI, have a mixed record, U.S. officials say the measures directed at al-Qaeda and Libya have been more successful than those aimed at dousing the nuclear ambitions of North Korea and Iran. Cohen said financial sanctions contributed to the demise of Libya's Muammar Qaddafi regime, which was ousted after months of fighting by rebels who were backed by a NATO air campaign.

"It was part of the overall pressure," he said.

The TFI office also targets some of terrorism's allies, including money launderers, drug kingpins and people or countries involved in the proliferation of weapons of mass destruction.

### 'Exploit Holes'

"Enforcement coupled with enhanced regulation has strengthened the ability



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of financial institutions themselves to be the first line of defense against illicit activity,” said Amit Sharma, former senior adviser in the TFI office who is now chief of staff at Mitsubishi UFJ Financial Group Inc.’s U.S. investment banking unit.

“These efforts continue to make it harder for terrorists and other illicit actors to financially support their efforts, but they remain innovative and exploit holes where they exist in the financial system,” he said in an e-mail.

Internet fundraising remains a “huge issue” even with progress, said Matthew Levitt, a former senior Treasury Department terrorism and financial intelligence official. Online casinos and other Web-based tools can be exploited to evade international policing efforts, said Levitt, now director of the Stein Program on Counterterrorism and Intelligence at the Washington Institute for Near East Policy.

So far, though, there’s little evidence that terrorists are using the Internet to raise, launder or move money, said the second U.S. intelligence official.

### Air-Cargo Bombs

Attacking financing is just one aspect of actions necessary to thwart terrorists, said Paul Pillar, a longtime senior intelligence official who now teaches at Georgetown University in Washington.

Yemen-based al-Qaeda in the Arabian Peninsula said it spent only \$4,200 for the failed parcel bomb-plot in October 2010. The bomb was found during a cargo check during a stopover in London after authorities were tipped off by Saudi intelligence. “Most terrorist operations that are big enough to get our attention are pretty cheap,” Pillar said. “And most terrorist organizations don’t need extensive infrastructures.”

## Terrorist Designation of the al-Qaida Kurdish Battalions

Media Note – Office of the Spokesperson, Washington, DC

Source: <http://www.state.gov/r/pa/prs/ps/2012/01/180166.htm>

The Department of State has designated the al-Qaida Kurdish Battalions (AQKB) as a Specially Designated Global Terrorist entity under Executive Order 13224, which targets terrorists and those providing support to terrorists or acts of terrorism. As a result of the designation, any assets that AQKB holds under U.S. jurisdiction are frozen and U.S. persons are prohibited from engaging in any transactions with the organization. This action will help stem the flow of financial and other assistance to AQKB.

Established in 2007 from the remnants of other Kurdish terrorist organizations (i.e. Ansar al-Islam), AQKB has sworn allegiance publicly to other terrorist groups, including al-Qaida and al-Qaida in Iraq. Operating along the border between Iran and Iraq (camps in the Iranian towns of Mariwan and Sanandaj), AQKB believes the leaders of the Kurdistan Regional Government are traitors and has claimed responsibility for a number of attacks against Kurdish targets in Iraq, including a May 2007 attack in Erbil, Iraq, in which 19 people were killed when a vehicle loaded with explosives struck the Kurdish Ministries of the Interior and Security. In July 2007, AQKB killed seven border guards and one Patriotic Union of Kurdistan security force member in an ambush in Penjwan, Iraq. In September 2010, two police officers were injured during a foiled AQKB suicide bomb attack targeting security officers in Sulaymaniyah, Iraq.

The designation under E.O. 13224 blocks all of AQKB’s property interests subject to U.S. jurisdiction and prohibits U.S. persons from engaging in transactions with or for the benefit of AQKB. The actions taken against this organization demonstrate the United States’ resolve in eliminating AQKB’s ability to execute violent attacks.

## Terror groups recruiting with social media

Source: [http://www.upi.com/Science\\_News/2012/01/09/Terror-groups-recruiting-with-social-media/UPI-42331326152999/#ixzz1j3Skgj4](http://www.upi.com/Science_News/2012/01/09/Terror-groups-recruiting-with-social-media/UPI-42331326152999/#ixzz1j3Skgj4)

Terrorist groups are turning to Facebook, Twitter and other social media sites to recruit

supporters across geographical borders, an Israeli researcher says.



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Gabriel Weimann of the University of Haifa says a number of Facebook groups are requesting "friends" to join and support Hezbollah, Hamas and other armed groups labeled as terror organizations by the West.

"Today, about 90 percent of organized terrorism on the Internet is being carried out through the social media. By using these tools, the organizations are able to be active in recruiting new friends without geographical limitations," Weimann said in a university release Monday. The global power of social media has not been lost on terrorist organizations, Weimann said, and they are keenly interested in recruiting in the new media's various arenas such as Facebook, Twitter, chat rooms, YouTube, Myspace and more.



"The social media is enabling the terror organizations to take initiatives by making 'Friend' requests, uploading video clips, and the like, and they no longer have to make do with the passive tools available on regular Web sites," he said.

Facebook's popularity is also being used by the terror organizations as a resource for gathering intelligence, Weimann said, and many countries

including the United States, Canada and Britain have instructed their soldiers to remove personal information as a precaution in case al-Qaida is monitoring it.

"The most advanced of Western communication technology is, paradoxically, what the terror organizations are now using to fight the West," Weimann said.

## British military gears up to secure 2012 Olympic Games

Source:<http://www.homelandsecuritynewswire.com/dr20120110-british-military-gears-up-to-secure-2012-olympic-games>

As London gears up for the 2012 Olympic



Games, event organizers and government officials have spared no expense on security measures to ensure the safety of the hundreds of thousands of athletes, spectators, and VIPS attending the six week event which begins on 27 July.

As many as 7,500 British troops will be called in to assist the 16,200 private security guards, 12,000 police officers, and more than 6,000 armed personnel who will be securing Olympic venues as well as the surrounding areas.

In addition all of the military's bomb sniffing dogs currently deployed in Afghanistan will be sent home to help detect explosives.

"The issue of explosive search dogs is crucial – they are the tools that will find the bombs, but we don't have enough of them," said one security official speaking anonymously to the *Telegraph*. "We have around thirty and they can only work for thirty to forty minutes before they get distracted or bored. From what I understand there will be virtually none left in Afghanistan – they will all be here."

Working in twelve hour shifts, the troops will be used to search attendees before they enter any Olympic venue.

Lord Alex Carlisle, a former MP and counterterror legislation watchdog, welcomed the decision to use military personnel to conduct pat downs.

"It makes sense to use soldiers who have been trained in carrying out searches on civilians, in places like Northern Ireland and Afghanistan," Carlisle said.

Carlisle was careful to note that security officials should not focus so heavily on Olympic venues that it



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leaves other areas vulnerable to attack.

“My concern is that we don’t displace so many people to Olympic venues that it leaves a risk elsewhere. Proper policing levels need to be maintained in other areas,” he said.

Officials are particularly concerned that an attack in the weeks preceding the games will force them to elevate security levels severely straining resources and complicating logistics.

“The real fear is that a single bomb somewhere in London a week or two before the games are due to begin will send security levels through the roof. Everyone will have to undergo a full body search, no vehicles will be allowed inside the Olympic park and it will take hours to get inside,” one anonymous official said.

Event organizers worry that such policies will result in even longer lines that could disrupt the Games’ schedule.

Meanwhile other security experts believe that terrorists are more likely to take advantage of the lax security elsewhere and target shopping

malls, railway stations, or the London Underground.

“Al Qaeda historically have focused on transport network rather than events – but there is no room for complacency,” said one security official. “We know dissident republican would like to disrupt the games – it is after all a world event. And there is always the prospect of an unknown self-contained AQ cell in the U.K. carrying an attack on their own.”

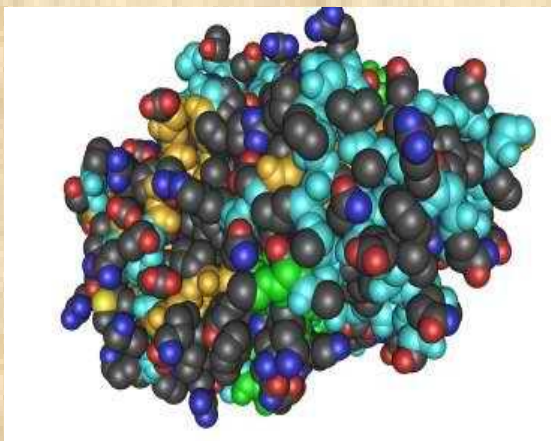
So far, in training exercises, security teams have achieved a 90 percent success rate in foiling attempts to smuggle explosives into the main Olympic venue. The British Home Office remains optimistic about its ability to secure the event.

“We have a robust safety and security strategy which is intelligence-led and risk-based. We want to reassure everyone that we will leave nothing to chance in our aim to deliver a Games that London, the U.K. and the whole world will enjoy,” the agency said.

### New way to stop the bleeding

Source: <http://web.mit.edu/newsoffice/2012/stop-bleeding-0110.html#.Twy4UAtextFY.facebook>

MIT engineers have developed a nanoscale biological coating that can halt



bleeding nearly instantaneously, an advance that could dramatically improve survival rates for soldiers injured in battle.

The researchers, led by Paula Hammond and funded by MIT’s Institute of Soldier Nanotechnologies and a Denmark-based company, Ferrosan Medical Devices A/S, created a spray coating that includes thrombin, a clotting agent found in blood. Sponges coated with this material can be stored stably and easily carried by soldiers

or medical personnel. The sponges could also prove valuable in civilian hospitals, says Hammond, the David H. Koch Professor in Engineering.

MIT researchers have developed a coating of thrombin, shown here, and tannic acid. After being sprayed onto a surface, the material can halt bleeding within seconds - Image: Wikimedia/Nevit Dilmen

“The ability to easily package the blood-clotting agent in this sponge system is very appealing because you can pack them, store them and then pull them out rapidly,” she says.

Hammond and her colleagues described the technology in the Dec. 27 online edition of *Advanced Materials*. Lead author of the paper is Anita Shukla PhD ’11, who is now a postdoc

at Rice University.

Uncontrolled bleeding is the leading cause of trauma death on the battlefield.

Traditional methods to halt bleeding, such as tourniquets, are not suitable for the neck and many





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other parts of the body. In recent years, researchers have tried alternative approaches, all of which have some disadvantages. Fibrin dressings and glues have a short shelf life and can cause an adverse immune response, and zeolite powders are difficult to apply under windy conditions and can cause severe burns. Another option is bandages made of chitosan, a derivative of the primary structural material of shellfish exoskeletons. Those bandages have had some success but can be difficult to mold to fit complex wounds.

Many civilian hospitals use a highly absorbent gelatin sponge produced by Ferrosan to stop bleeding. However, those sponges need to be soaked in liquid thrombin just before application to the wound, making them impractical for battlefield use. Hammond's team came up with the idea to coat the sponges with a blood-clotting agent in advance, so they would be ready when needed, for either military or civilian use.

To do that, the researchers developed a nanoscale biological coating that consists of two alternating layers sprayed onto a material, such as the sponges used in this study. The researchers discovered that layers of thrombin, a natural clotting protein, and tannic acid, a small molecule found naturally in tea, yield a film containing large amounts of functional thrombin. Both materials are already approved by the U.S. Food and Drug Administration, which could help with the approval process for a commercialized version of the sponges, Shukla says.

A key advantage of the spray method is that it allows a large amount of thrombin to be packed into the sponges, coating even the interior fibers, says David King, a trauma surgeon and instructor in surgery at Massachusetts General Hospital who was not involved in this research.

"All of the existing hemostatic materials suffer from the same limitation, which is being able to deliver a dense enough package of hemostatic material to the bleeding site. That's why this new material is exciting," says King, also an Army reservist who has served in Afghanistan as chief of trauma surgery.

Once sprayed, the sponges can be stored for months before use. The sponges can also be molded to fit the shape of any wound. "Now we have an alternative that could be used without applying a large amount of pressure and can conform to a variety of wounds, because the sponges are so malleable," Shukla says.

In tests with animals at Ferrosan, the coated sponges were applied to wounds, with light pressure (from a human thumb), for 60 seconds — and stopped the bleeding within that time. Sponges lacking thrombin required at least 150 seconds to stop the bleeding. A simple gauze patch, applied for 12 minutes (the length of the experiment), did not stop the bleeding.

The researchers have filed a patent application on this technology and on similar sponges coated with the antibiotic vancomycin. Hammond's lab is now working on combining the blood-clotting and antibiotic activities in a single sponge.

## Somali piracy 'boosts Puntland economy'

Source: <http://www.digitalhen.co.uk/news/world-africa-16534293>



New research suggests piracy has led to widespread economic development in some parts of Somalia.

The study, published by British think-tank Chatham House, looked at detailed satellite imagery.

Regional centres have benefited from substantial investment funded by



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piracy, but coastal communities have missed out, the report indicates. International naval patrols in the Gulf of Aden are making it more difficult for Somali pirates to launch attacks. However, at least 40 vessels and more than

in intensity across Somalia, which Ms Shortland attributes to global food and energy price rises and renewed conflict. None of the pirate communities on the coast appeared to have enough power, she observed.



Images of central Garowe: The left one taken in February 2002, the right in June 2009

**Shared benefits**

Analysis of daytime satellite image showed that Garowe almost doubled in area between 2002 and 2009, with significant housing, industrial and commercial developments. Many houses were newly built or repaired between those dates and a much larger number have vehicles parked outside.

400 hostages are still being held in or just off Somalia, according to the Ecoterra International group which monitors piracy in the region. A two-decade civil war in Somalia has allowed pirates to flourish.

Some of them are former fishermen who say they were put out of business by trawlers from around the world taking advantage of the power vacuum to fish in Somali waters.

The study suggests a land-based solution is needed to tackle the problem.

Report author Anja Shortland used high-resolution daytime satellite images and also looked at night light emissions throughout the decade starting in 2000.

The night pictures show a significant increase in light emissions from centres such as Garowe and Bosasso in the semi-autonomous Puntland region where most of the pirates are based.

This suggests an increase in electricity consumption because of economic development, the study says.

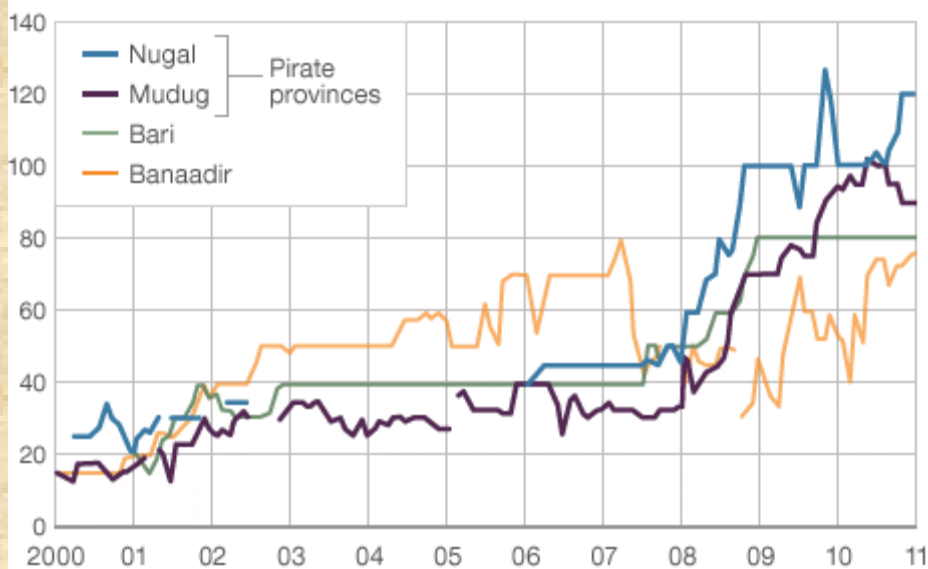
The increase in the highest intensity light spots in those cities came despite a general decline

The key pirate centres of Eyl and Hoby, by contrast, showed evidence of only limited and relatively small improvements to their infrastructure.

The report concludes that significant amounts of ransom money are spent in the regional centres, with the benefits being shared out

**How wages have grown in Somalia's pirate provinces**

Nominal wage in Somali shillings per day (000s)



Source: Chatham House

between a large number of people due to the clan structures in place.



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"Puntland's political elites are therefore unlikely to move decisively against piracy," it says.

In addition to satellite images, the Chatham House report analysed information collected by non-governmental organisations on commodity prices and wages.

Data from the Food Security and Nutrition Analysis Unit suggests nominal daily wages in the pirate provinces of Nugal and Muduq "have caught up with and then overtaken non-pirate regions since the explosion of piracy in 2008," the study says.

In Nugal province, the daily wage increased from 40,000 Somali shillings in 2005 to 120,000 in 2011 (\$1 = 25,000 Somali shillings). "This is likely to reflect both direct employment opportunities and investments into local businesses."

The report adds that the positive effect of piracy on incomes in parts of Puntland has been offset by the impact of food price inflation.

### International response

In response to the massive increase in piracy off Somalia in 2008 and international naval

force was established to patrol the seas off Somalia.

The Chatham House report observes that pirate attacks off Somalia have become considerably more violent since mid-2010, because of the increased difficulty of capturing ships.

"Pirates now invest more resources in maximising the return from each captured ship," it says.

The report also warns that if pirates increase their co-operation with Islamist militants from the al-Shabab group, piracy could end up funding regional instability and terror.

Ms Shortland argues that a land-based response is necessary to help tackle piracy.

"A negotiated solution to the piracy problem should aim to exploit local disappointment among coastal communities regarding the economic benefits from piracy and offer them an alternative that brings them far greater benefits than hosting pirates does," she says.

"A military crack-down on the other hand would deprive one of the world's poorest nations of an important source of income and aggravate poverty."

## Is al-Qaeda Infiltrating Syria through Lebanon's Beka'a Valley?

By Nicholas A. Heras

Source: <http://www.jamestown.org>

Disputes over the possible presence of al-Qaeda in Lebanon's Beka'a Valley are beginning to destabilize Syrian-Lebanese relations. Attention on the Beka'a region has intensified following the December 23, 2011 and January 6, 2012 suicide bombing attacks in Damascus, which left a combined 60 dead and 229 wounded. On December 21, two days before the attacks in Damascus, Lebanese Defense Minister Fayez Ghosn told a meeting of Lebanese Army officers that the region of Aarsal, in the northeastern Beka'a Valley, was being used for the smuggling of weapons and al-Qaeda members masquerading as Syrian dissidents into Lebanon (*Al-Liwaa*, December 21, 2011).

The Syrian government blamed members of al-Qaeda for the bombings, alleging some were seeking refuge and a base of operations in Lebanon by using the traditional human trafficking routes of the Beka'a Valley as a transit point from Syria into Lebanon. An already simmering dispute between Lebanon

and Syria over the policing of contested areas of the Beka'a Valley, particularly in the northeastern frontier of Lebanon near the village of Aarsal, has taken on new importance in determining the course of relations between the two countries since the Damascus bombings. Syria has mined its side of the border and conducts regular military helicopter patrols of the roads leading from Syria into Lebanon. Since May 2011, at least one resident of the Aarsal municipal area has been killed and tens wounded by Syrian army operations on the Lebanese side of the border in the Aarsal region. These operations have included armor and mounted infantry patrols (*Daily Star* [Beirut], January 4). The political conflict between the two countries over the Aarsal region is severe enough that UN Secretary General Ban Ki Moon is expected to address the topic in depth on his January 13 visit to Lebanon (AFP, January 5).



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Arsal, like its sister villages in the Arsal municipality, is located within a strip of disputed territory between Lebanon and Syria. Although the area is considered internationally part of Lebanon, the Syrian government still contests this claim. Arsal municipality is located in a region of semi-arid steppe land that depends largely upon animal husbandry, stone quarrying, and eco-tourism as its primary sources of revenue. Smuggling, most commonly in people, weapons, narcotics, and stolen goods, is part of the underground economy in the Arsal region, as it is throughout the Beka'a Valley. Located between the Beka'a Valley cities of Baalbek and Hermel, the area is approximately 20 miles from the Syrian border. Arsal has a population of almost 40,000 people, the majority of whom are Sunni Muslim and supporters of the Future Bloc (a member party of the anti-Syrian March 14 coalition), setting it apart politically from the rest of the Baalbek-Hermel region. Predominately Shi'a and associated with political parties that support the pro-Syrian March 8 coalition (including Hezbollah, AMAL, and the Lebanese Ba'ath Party), the area of Baalbek-Hermel is thought to be a stronghold of support for the Syrian regime. Ahmad Qanso, the most prominent political figure of the Lebanese Ba'ath Party has gone as far as to suggest that 20 al-Qaeda cells operate in Lebanon, and that public buildings in Arsal, including a mosque and a health clinic, are used by al-Qaeda to move fighters into Syria (*al-Sharq al-Awsat*, January 2).

Arsal's reputation has not been improved by recent events. On November 21, 2011 the Lebanese Army briefly entered Arsal in order to follow-up on reports that a person tied to international terrorist groups might be present in the village, although no arrests were made in connection with the operation (*Daily Star*, December 29, 2011). The village is viewed by some as being a node in a smuggling network of weapons, drugs, and jihadists that includes the Beka'a village of Majdal Anjar, the Akkar district of northern Lebanon, and the purportedly militant Salafist neighborhoods in Tripoli. Majdal Anjar is another predominately Sunni Muslim, March 14 coalition-supporting village in the eastern Beka'a near the Lebanese-Syrian border. The link to Majdal Anjar is considered incriminating by some in Lebanon because the village is already notorious for having been a staging point and

safe haven for militant Salafist fighters from Lebanon, especially from around Tripoli and the Akkar district, through Syria and into Iraq to confront the U.S. military there. Since the defeat of Fatah al-Islam fighters in Nahr al-Barid in 2007, Majdal Anjar is viewed as a likely place for confrontation between the Lebanese Army and militant Salafist fighters. Weapons smuggled in the region of Majdal Anjar are suspected of being used by Salafist fighters in "front-line" areas of Lebanon, such as the Tarek al-Jdeideh neighborhood in Beirut and between the Sunni Muslim Bab al-Tabbaneh and Alawite Jebel Mohsen neighborhoods in Tripoli. The village is also thought to be a source of Salafist fighters for these front-line districts, though not on the scale of the Tripoli neighborhoods of Qibbeh, Abu Samra, and Bab al-Tabbaneh and the village of Dinneyeh north of Tripoli. A Lebanese Army intelligence officer told the author that: "Majdal Anjar is the next Nahr al-Barid. It isn't getting better there, it is worse." [1]

Defense Minister Ghosn's comments have led to a furious political debate in Lebanon, divided along the fault line that separates the pro-Syrian March 8 and anti-Syrian March 14 coalitions. Minister Ghosn is himself a member of the March 8 bloc (*Daily Star*, January 3, 2012). Representatives of the municipality of Arsal, including the mayor of the village, have categorically denied their involvement with al-Qaeda and demanded that the Lebanese Army increase its presence in their region (Central News Agency-Lebanon, December 27, 2011). Lebanese Prime Minister Najib Miqati, who is considered an ally of the March 8 coalition, stated that there was no clear evidence of al-Qaeda using Lebanon as a base to attack Syria (*An-Nahar*, December 28, 2011). Prompted by Ghosn's statements to address the issue, Lebanese President Michel Suleiman insisted that the Lebanese people would not support al-Qaeda or any of the militant movements it has inspired, citing the popular support that the Lebanese Army received in 2007 as it confronted Fatah al-Islam militants in the Nahr al-Barid refugee camp north of Tripoli (*Daily Star*, December 28, 2011). In response to Ghosn's comments, Lebanon's Interior Minister Marwan Charbel stated that al-Qaeda does not have a military presence in Lebanon, only some ideological supporters (NBN TV, December 28, 2011). Members of



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former Prime Minister Saad Hariri's Future Bloc went even further in denouncing Ghosn; in a public statement the party referred to Ghosn's comments as "dangerous and suspicious," implying that the Defense Minister could be working to support the al-Assad government (*Daily Star*, December 28, 2011). The largely Christian Lebanese Forces, also part of the March 14 coalition, have sent a delegation to Aarsal to display solidarity with its people (Lebanese Broadcasting Corporation International, January 2). March 8 coalition member Suleiman Franjeh, a prominent pro-Syrian Maronite Catholic politician and leader of the Marada Movement, inflamed the debate by stating that the presence of al-Qaeda in Lebanon was being covered up by the Lebanese government (*Daily Star*, January 3). In the context of ongoing Syrian military excursions into Lebanese territory around Aarsal, and the Damascus bombings, Defense Minister Ghosn's remarks have sparked a huge debate amongst Lebanese politicians and government officials on whether or not Lebanon, and this corner in the Beka'a Valley in particular, is being used as a staging ground

for attacks into Syria. Minister Ghosn's affiliation with the March 8 bloc has severely politicized the debate on the likelihood of al-Qaeda using Lebanon to attack Syria, reflecting the political divisions in Lebanese society and not the existential security threat that an al-Qaeda presence in Lebanon would pose both to the Lebanese state and to the Syrian government. Though harsh political rhetoric over the issue between the March 14 and March 8 Blocs in Lebanon is now the norm, there is no compelling evidence at present that al-Qaeda is using Aarsal as an area of refuge or a staging point for attacks on the Syrian government.

Note:

1. The preceding section is based on informal interviews by the author of members of the Lebanese Army who were or are currently on duty in the Beka'a Valley. They were conducted by the author in Beirut, Lebanon from May 2011-August 2011 on the condition that the interviewees remained anonymous because they are still on active duty.

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## The American Military Presence and Terrorist Safe Havens in the Southern Philippines

By Justin Hempson-Jones

Source: <http://www.jamestown.org>

One of the smaller deployments of U.S. troops under the banner of the "global war on terrorism" was that of U.S. Special Forces to parts of the southern Philippines in 2002. This deployment was limited to advising the Armed Forces of the Philippines (AFP) in their effort to defeat terrorist groups and to prevent the establishment of terrorist safe havens. [1] These aims were met with some success: militant networks were ejected from mainland Mindanao, whilst the Abu Sayyaf Group (ASG) was largely destroyed in its island strongholds. However, in weakening the Moro Islamic Liberation Front (MILF) – the dominant insurgent group in Mindanao – the success of the deployment has the potential to also be its undoing.

Initially, it was unclear which of the Philippines' many groups of armed, anti-state and

potentially violent men were to be labeled "terrorists." However, when the administration of former president Gloria Macapagal Arroyo successfully lobbied the U.S. government to leave the approximately 10,000 strong MILF off a terrorist watch-list, an attempt to clearly delineate "insurgents" from "terrorists" followed – a necessary condition, perhaps, for moving forward a struggling peace process between the MILF and the government of the Republic of the Philippines.

At least as far as it can be considered a unified entity, the MILF has long ceased to shelter members of the Abu Sayyaf and Jemaah Islamiya networks in its camps. American counterterrorism efforts appear to have been instrumental in bringing about this development. Apart from a brief return to violence in 2008, the



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MILF has remained committed to its ceasefire and continued dialogue with the government. The head of the MILF Coordinating Committee for the Cessation of Hostilities, Rashid Ladiasan, stated that “as long as we provide a space for dialogue, the U.S. appreciates [the MILF position]”. [2] While the MILF appear to be reassured that they are not the direct target of the American military presence, they remain wary of it. Ladiasan continues: “In Maguindanao [province] there were spy planes [i.e. drones] that we captured. The fear was that the U.S. was targeting us...We are sure they are looking at us.”

While the capture of American drone aircraft has not been independently verified, the MILF remains highly sensitive to the American presence and policy priorities, a significant factor in ensuring a continued commitment from the movement to observe the ceasefire and continue its dialogue with the government. Indeed, MILF representatives have attempted to turn fear of a powerful external military capability into a public welcome of U.S. political involvement. For instance, Professor Abhoud Lingga, a MILF peace panel representative, states: “We believe the U.S. created the problem, so it should help solve the problem,” an apparent reference to the former U.S. colonial role in the Philippines. [3] MILF lawyer Michael Mastura meanwhile makes further appeals to U.S. sensibilities: “[The conflict in Mindanao] renders possible a universal appeal to the basic principle of American ‘fairness and sense of justice’ to use U.S. good offices to rectify [it].” [4]

The current administration of Benigno Aquino III came to office intending to prioritize resolution of the conflict in Mindanao by aiming for an inclusive settlement that includes non-MILF Christian and Muslim groups. A major difficulty thrown up by this strategy, however, is determining at which stage the MILF are brought on board with power-sharing

agreements in the current and future Autonomous Region of Muslim Mindanao (ARMM). While the U.S.-enabled inhibition of MILF militancy holds, the Manila government may be tempted to clean up the ARMM first with an interim government before working out how to bring in the MILF.

However, the longer settlement with the MILF is postponed, the greater the danger that the group will fracture as supporters and fighters become disillusioned with negotiations. A portent of this trend has been seen with the splitting off of Ameril Kato’s Bangsamoro Islamic Freedom Fighters (BIFF), a development that MILF Vice Chairman Ghadzali Jhafaar says occurred because peace talks were “going nowhere.” (Daily Tribune [Manila], August 20, 2011; Philippine Inquirer [Manila], August 20, 2011; see also *Terrorism Monitor*, September 9, 2011). Some policy makers in the Philippines and beyond celebrate such a trend as it represents the diminishment of an enemy split into increasingly smaller and apparently less threatening units.

For the United States, this kind of thinking overlooks a more dangerous reality: the growing trend to factionalism in the MILF may add substantially to the chaos of Mindanao’s political space. In an ungovernable environment in which factions fear one another as much as they fear outside parties such as the Manila government or U.S. forces, the temptation to offer sanctuary to foreign militants offering money and expertise may increase. The American military presence has the potential to create a paradoxical effect - while raising the cost of belligerence to the MILF; it also increases the likelihood of the movement’s disintegration. Such a development may help, rather than hinder, Islamist militants in finding shelter in the southern Philippines.

### Notes:

1. See U.S. Joint Special Operations Task Force - Philippines (JSOTF-P) website, [http://jsotf-p.blogspot.com/2011/09/type-your-summary-here\\_20.html](http://jsotf-p.blogspot.com/2011/09/type-your-summary-here_20.html)
2. Author’s interview with Rashid Ladiasan, Cotabato City, October 6, 2010.
3. Author’s interview with Abhoud Lingga, Cotabato City, October 4, 2010.
4. Michael O. Mastura, quoted in “About Us” section of the MILF website:



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[http://www.luwaran.com/home/index.php?option=com\\_content&view=section&layout=blog&id=15&Itemid=544](http://www.luwaran.com/home/index.php?option=com_content&view=section&layout=blog&id=15&Itemid=544)

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### Terrorists Who Planned To Bomb Fuel Lines At JFK Get Life In Prison

Source: <http://www.examiner.com/homeland-security-in-chicago/terrorists-who-planned-to-bomb-fuel-lines-at-jfk-get-life-prison>



Yesterday (Jan 13, 2012), Judge Dora Irizarry sentenced convicted defendant Kareem Ibrahim to life in prison for conspiring to commit a terrorist attack (2007) at John F. Kennedy International Airport in Queens, New York by exploding fuel tanks and the fuel pipeline under the airport. Ibrahim's co-conspirators, Russell Defreitas, a former cargo handler, Abdel Kadir, an engineer and former member of Guyana's parliament, were also sentenced to life in prison. Abdel Nur, who ventured to New York from Guyana, to attend a meeting regarding the plot which never took place, received fifteen years in prison. The co-conspirators believed their attack would cause extensive damage to the airport and to the New York economy, as well as loss of numerous lives.

At the sentencing Judge Irizarry stated, "This case shows the government at its best in terms of protecting the security of the country."

### Al-Qa`ida's Center of Gravity in a Post-Bin Laden World

By Mitchell D. Silber

Source: <http://www.ctc.usma.edu/posts/al-qaida%E2%80%99s-center-of-gravity-in-a-post-bin-ladin-world>

A group of men spend their formative and early adult years in Western urban settings such as London, Hamburg, Copenhagen, New York or Sydney. They take the initiative to travel overseas and then return to the West to launch terrorist attacks in the name of al-Qa`ida. Can this be considered an al-Qa`ida plot? What criteria determine that designation? What is the nature of the relationship between radicalized men in the West and the core al-Qa`ida organization in the borderlands of Afghanistan and Pakistan? For it to be identified as an al-Qa`ida plot, does one of the plotters have to attend an al-Qa`ida training camp or meet with an al-Qa`ida trainer, or can they simply be inspired by al-Qa`ida's ideology?

These are critical questions. To truly understand the nature of the threat posed by the transnational jihad, led in the vanguard by al-Qa`ida, it is essential to have a greater and more nuanced understanding of the genesis and attempted execution of plots directed against the West.[1] Al-Qa`ida core's role should not be overestimated or underestimated, as important resource allocation questions for Western governments derive from the answers to these questions. It affects military, intelligence, and policing activities that are dedicated to preventing the next attack. In a sense, determining "where the action is for the conspiracy" before a plot is launched



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should drive Western counterterrorism efforts. In military terms, this would be akin to identifying what Prussian military theorist Carl von Clausewitz called the “center of gravity,” or critical element of strength of al-Qa`ida plots, to provide insights on how to thwart them.

Dissecting 16 of the most important jihadist terrorist plots launched against the West since 1993 provides a deeper and more precise understanding of the role that al-Qa`ida core has had in jihadist plots over this time period—or, the “al-Qa`ida factor.” A variety of criteria were assessed for the 16 plots examined in this article.[2] These plots include: 1993 World Trade Center attack, 1999 Los Angeles International Airport (LAX) millennium plot, 2001 9/11 attacks, 2001 shoe bombers’ plot, 2002 Lackawanna cluster arrests, 2004 Madrid train system attack, Britain’s 2004 Operation Rhyme and Operation Crevice plots, The Netherlands’ 2004 Hofstad Group plots, Britain’s 2005 July 7 and July 21 attacks, Britain’s 2006 transatlantic liquid bomb plot, Australia’s 2005 Operation Pendennis plot, Canada’s 2006 Operation Osage plot, Denmark’s 2007 Operation Dagger plot and the 2009 New York City subway plot.[3]

To determine where the center of gravity lies for the al-Qa`ida threat in a post-Bin Ladin world, this article will examine al-Qa`ida’s role, or lack thereof, in the formation of the network in each of these 16 cases, as well as each network’s inspiration, recruitment, training and mobilization to violence.[4] It finds that individuals in the West, rather than al-Qa`ida core, underpinned the majority of these plots, as these men sought out militant training overseas and then were redirected by al-Qa`ida core operatives to plot against targets in Western cities. The article concludes with an overall assessment of the al-Qa`ida threat in the wake of key leadership losses recently suffered by the group.

### Creating the Local Network, Providing Inspiration

To determine if al-Qa`ida core had a role in the formation of the local networks or “scenes” from which a subgroup of men (cluster) emerged who subsequently became involved in a terrorist plot, it must be acknowledged that al-Qa`ida could have influenced the development of these local extremist social networks in the West in two ways: either actively through direct efforts like sending

emissaries (“al-Qa`ida preachers”) abroad, or more passively through the spread of its ideology via the internet and the creation of a heroic narrative that inspires individuals.

After examining the set of 16 plots, it is clear that what was replicated in many Western cities (New York, London, Amsterdam, Copenhagen, Hamburg, Montreal, Toronto, Sydney/Melbourne and Madrid) demonstrated a passive role for al-Qa`ida and a much more organic effort by local self-anointed “al-Qa`ida preachers” in the West.[5] These “preachers”—such as `Umar `Abd al-Rahman in New York, Abu Hamza al-Masri in London, or Abu Dahdah in Madrid—distributed literature at the mosque about the activities of Muslim militants in Algeria, the Palestinian Territories, Egypt, and Afghanistan, including communiqués issued by Usama bin Ladin. Furthermore, they began to indoctrinate young Muslims who expressed interest in the literature.

The “al-Qa`ida preachers” in the West were often Islamist-oriented political asylum seekers from the Middle East, with weak links to al-Qa`ida core. They did, however, provide a local context in which young men from varied demographic and economic strata, seeking political and religious answers, began to adopt al-Qa`ida’s ideology and radicalize. The narrative of a “war against Islam,” the individual obligation to participate in militant jihad, and the rejection of Western democracy were doctrinal tenets of the worldview that was advocated.

These men created an environment that fostered gravitation to reactionary Islam as well as politicization of these new beliefs. They brought politics into the mosque and called on members of the congregation and Muslims in general to mobilize and come to the aid of their fellow Muslims around the world. As a result, over time these “al-Qa`ida preachers” promoted travel overseas to fight in a variety of places such as Bosnia, Chechnya, Afghanistan and Iraq as well as other “fields of jihad” which now include Yemen and Somalia.

### Linking with Al-Qa`ida from the Bottom Up

Did a worldwide network of al-Qa`ida recruiters spot promising individuals in the West, induct them into al-Qa`ida, and direct them to al-Qa`ida camps in Afghanistan and Pakistan? Or did individuals take the initiative, mobilize, and seek out al-Qa`ida to carry out their jihadist





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ambitions? Were there al-Qa`ida facilitators in certain cities? What was their role and who were they? What role did travel to a “zone of conflict” play?

The case studies support a paradigm of al-Qa`ida plots against the West that is underpinned by a “bottom up” process, driven by individuals in the West who radicalize and then take the initiative to go overseas for training or to get into the fight. Although there may be local “fixers” in Western cities who have overseas links and can facilitate or enable an overseas connection, typically they are not recruiters in the traditional sense of the word—they are not soliciting individuals from the top down on behalf of an overseas terrorist organization. Instead, they are an important node in a facilitation network with links to terrorist groups overseas. In only one case, the Lackawanna cluster, did an al-Qa`ida member, Kamal Derwish, arrive in town and as a result deliver recruits to the core organization in Afghanistan.

In most of the cases, individuals in the West sought to travel overseas to zones of conflict for the primary purpose of training or fighting in Afghanistan and ended up joining al-Qa`ida more by coincidence than design—al-Qa`ida core was not always their primary destination. This pattern has persisted with the operational leaders of a number of plots from 1998/1999 in Montreal (Ahmed Ressam) and Hamburg (Muhammad `Atta and the rest of the Hamburg cluster), during 2001-2006 in London (Omar Khyam, Mohammed Siddique Khan, Mukhtar Ibrahim, Ahmed Abdulla Ali), Copenhagen (Hammad Khurshid) and then New York City in 2008 as demonstrated by the fortuitous connections made to al-Qa`ida by Najibullah Zazi, Adis Medunjanin and Zarein Ahmedzay.

### Recruitment on Al-Qa`ida's Doorstep

Rather than specifically recruiting operatives in the West, al-Qa`ida core and other groups have been opportunistic and relied on whatever batch of young Western volunteers was able to make it to South Asia and subsequently arrive at the doorstep of al-Qa`ida-linked training camps (whether enabled by a facilitation network or familial links). Rather than using these motivated men on the battlefield against coalition forces, these “would-be warriors” with Western passports were turned around and sent back to their country of origin or another

Western country to carry out terrorist operations.

Abdul Hadi al-Iraqi, al-Qa`ida's military commander in Afghanistan, did precisely that for the Operation Crevice conspirators via his deputy. According to one of the conspirators, “[Omar] Khyam had been told that, when he was in Pakistan, there was no room for him to fight in Afghanistan and that what he should do is to carry out operations in the UK.”[6] Ostensibly, it was Abdul Hadi al-Iraqi's deputy who provided this “suggestion” to Khyam on behalf of Abdul Hadi.[7]

This pattern of opportunistic al-Qa`ida recruiting of Westerners who had arrived in Afghanistan and Pakistan, and then convinced to target the West, is a model that repeated itself in the 1999 LAX millennium plot, 2001 9/11 attacks, 2001 shoe bombers' plot, Britain's 2005 July 7 and July 21 attacks and 2006 transatlantic liquid bomb plot, Denmark's 2007 Operation Dagger plot and the 2009 New York City subway plot. Interestingly, although not part of the data set, this pattern was seen in the operations of al-Qa`ida affiliates (al-Qa`ida in the Arabian Peninsula) and allies (Tehrik-i-Taliban Pakistan) in the 2009 Christmas Day bomb plot and the 2010 Times Square plot. In both of these cases, Western “would-be warriors” Umar Farouk Abdulmutallab and Faisal Shahzad took the initiative to travel overseas and then were similarly “recruited” and redirected once they arrived in Yemen and Pakistan, respectively.

### Al-Qa`ida “Training”

In the 16 case studies examined, conspirators from the West can be stratified among four different training camp experiences, some directly linked to al-Qa`ida, others not. Conspirators from the 1993 World Trade Center attack, 1999 LAX millennium plot, the 9/11 attacks, the 2001 shoe bombers' plot, Britain's 2004 Operation Rhyme, Australia's 2005 Operation Pendennis, and the cluster from Lackawanna all attended one or more al-Qa`ida facilities in Afghanistan. Until late 2001, al-Qa`ida core funded or controlled most of the training camps in Afghanistan, such as Khalden, al-Faruq, and Darunta. Individuals who had traveled to Afghanistan for training before the fall of the Taliban in 2001 likely trained in an al-Qa`ida core camp. Those camps, however, were subsequently destroyed by coalition



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airstrikes. While they were in existence, the range of training the camps provided varied from basic infantry training to more advanced military training to improvised explosive device construction.

Following the destruction of these camps and al-Qa`ida's flight from Afghanistan to Pakistan, makeshift camps were created in the Federally Administered Tribal Areas (FATA) and Khyber Pakhtunkhwa Province (formerly known as the North-West Frontier Province). Although there was some small-arms training for Westerners, explosives training was a key element of the curriculum. Accounts from Westerners have described these camps as melting pots of Afghan Taliban, al-Qa`ida, Pakistani Taliban, and Kashmiri groups.[8] Ongoing intelligence gaps mean that these determinations are difficult to make with complete certainty, but there is a high degree of confidence that conspirators from the 2005 July 7 and 21 London metro attacks, the 2006 transatlantic liquid bombs plot, the 2007 Operation Dagger plot in Copenhagen, and the 2009 New York City subway plot all attended these types of al-Qa`ida-associated training camps, most likely in FATA or Khyber Pakhtunkhwa Province in Pakistan.

For a few conspirators among the 16 major operations covered, there was an evolutionary process to their training. They initially attended training camps operated by Kashmiri groups that were allied with al-Qa`ida—such as Harkat-ul-Mujahidin (Mohammed Siddique Khan: July 7 London metro attack), Lashkar-i-Tayyiba (Dhiren Barot: Operation Rhyme), and Jaysh-i-Muhammad (Shane Kent: Operation Pendennis)—before they were properly vetted or able to make the links necessary to attend an actual al-Qa`ida camp.

Finally, there were plotters who traveled to Pakistan and received training at militant camps run by al-Qa`ida allies, such as Lashkar-i-Tayyiba (Australia's Operation Pendennis and Canada's Operation Osage) and Jaysh-i-Muhammad (The Netherlands' Hofstad Group), but not al-Qa`ida camps. One group of conspirators (Britain's Operation Crevice) arranged with a local religious teacher to set up their own paramilitary training camp for light weapons. The men provided money, and the local teacher and his son were to provide guns, food, tents, ammunition, and other training equipment.[9]

### Looking Forward

Today, in late 2011, with the recent deaths of al-Qa`ida chief Usama bin Ladin, top operational planner Atiyah Abdul al-Rahman, and a steady attrition by arrest or death of senior core leadership, how should the changing nature of the al-Qa`ida threat to the West be understood?

Due to the rise of other important nodes in al-Qa`ida's worldwide network of allies and affiliates, the threat from al-Qa`ida-type terrorism has not ended. Rather, it has devolved into an expanded, diffuse network of affiliates, allies and ideological adherents. Since 2001, the core networked laterally with other like-minded groups on the periphery who were aligned ideologically and formed a loose coalition of allies and affiliates to include al-Qa`ida in the Arabian Peninsula (AQAP), Tehrik-i-Taliban Pakistan (TTP), Lashkar-i-Tayyiba (LeT), al-Shabab, and al-Qa`ida in the Islamic Maghreb (AQIM), among others. Each group serves as a power center, node, or hub that has an informal and loose relationship to al-Qa`ida core. As the core may continue to fade, other nodes in the network will seek to raise their profile and may even surpass the core's ability to project a threat outward against the West. Since 2009, some of these affiliates and allies have already begun to attract "would-be warriors" radicalized in the West who otherwise might have attempted to join al-Qa`ida core, but chose alternatives and then were sent back to plot against the West (such as AQAP's 2009 Christmas Day plot and the TTP's 2010 Times Square plot).

Although al-Shabab in Somalia has not launched attacks against the West to date, the attack in Uganda in 2010 served as a proof concept of the group to act outside of its primary theater of operations and may have been a preview of targeting selection to come.[10] It has already attracted to the cause diaspora Somalis, converts and other mobilized Westerners from Toronto, Minneapolis, Seattle, New Jersey, Chicago, London and Melbourne. Also, LeT, TTP and the alphabet soup of other Pakistan-based jihadist groups to include Harkat-ul-Mujahidin (HuM), Jaysh-i-Muhammad (JM) and Harkat-ul-Jihad-al-Islam (HuJI) operate in the same sanctuaries that al-Qa`ida survived in and have already attracted Westerners to train and plot with them. How long will it be before other groups from Pakistan



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follow the lead of LeT with David Headley and the TTP with Faisal Shahzad and target the West?

In conclusion, as long as individuals continue to radicalize in the West—whether it is New York, London, Hamburg or Toronto—and take the initiative, mobilize and seek out paramilitary training and the opportunity to fight overseas,

al-Qa`ida will continue to have a center of gravity in the West. The pattern of al-Qa`ida-type plots utilizing redirected Westerners will continue, and thwarting them will require combined vigilance, commitment of resources and staying power of law enforcement and intelligence agencies.

### Notes:

[1] In this case, “West” refers specifically to Europe, North America, and Australia.

[2] This article is based on studies presented in the author’s forthcoming book, *The Al Qaeda Factor: Plots Against the West*. The source material, which is presented in the book, includes legal documents, trial transcripts and media reporting.

[3] Ibid.

[4] Ibid.

[5] Although they are identified as “al-Qa`ida preachers,” that does not mean that they were part of the al-Qa`ida organization. They did, however, pursue the same ideology as al-Qa`ida today. Additionally, they may have had connections to al-Qa`ida members.

[6] Regina v. Omar Khyam et al., Central Criminal Court, Old Bailey, London, 2006.

[7] Ibid.

[8] Paul Cruickshank, “The 2008 Belgium Cell and FATA’s Terrorist Pipeline,” CTC Sentinel 2:4 (2009).

[9] Regina v. Omar Khyam et al., Central Criminal Court, Old Bailey, London, 2006.

[10] In July 2010, two suicide bombers from al-Shabab attacked crowds watching the FIFA World Cup in Kampala, Uganda. One of the sites attacked was a restaurant called Ethiopian Village.

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## Somali Piracy: 2011 Annual Update

STRATFOR , January 13, 2012

Source: <http://www.stratfor.com/analysis/somali-piracy-2011-annual-update>

Somali pirates continued their activities in 2011 but hijacked fewer ships than in 2010 or 2009.

efforts are taken on land to eliminate havens for pirates. Furthermore, piracy comes with a large economic incentive. Even if the Somali pirates are displaced from their current havens, they likely will find ways to operate if there are no alternatives for making money -- alternatives that are scarce in Somalia, which has no significant economic resources.

### Geographic Range and Tactics

The pirates' area of operations contracted during the past year while the use of some countermeasures expanded. Although these countermeasures might have helped curtail Somali piracy in 2011, significant improvements will not be likely until serious

Since at least 2008, pirates have been extending their area of operations farther to the south and east from Somalia, extending in 2010 to near Madagascar and the southwestern Indian coast. Though there was not



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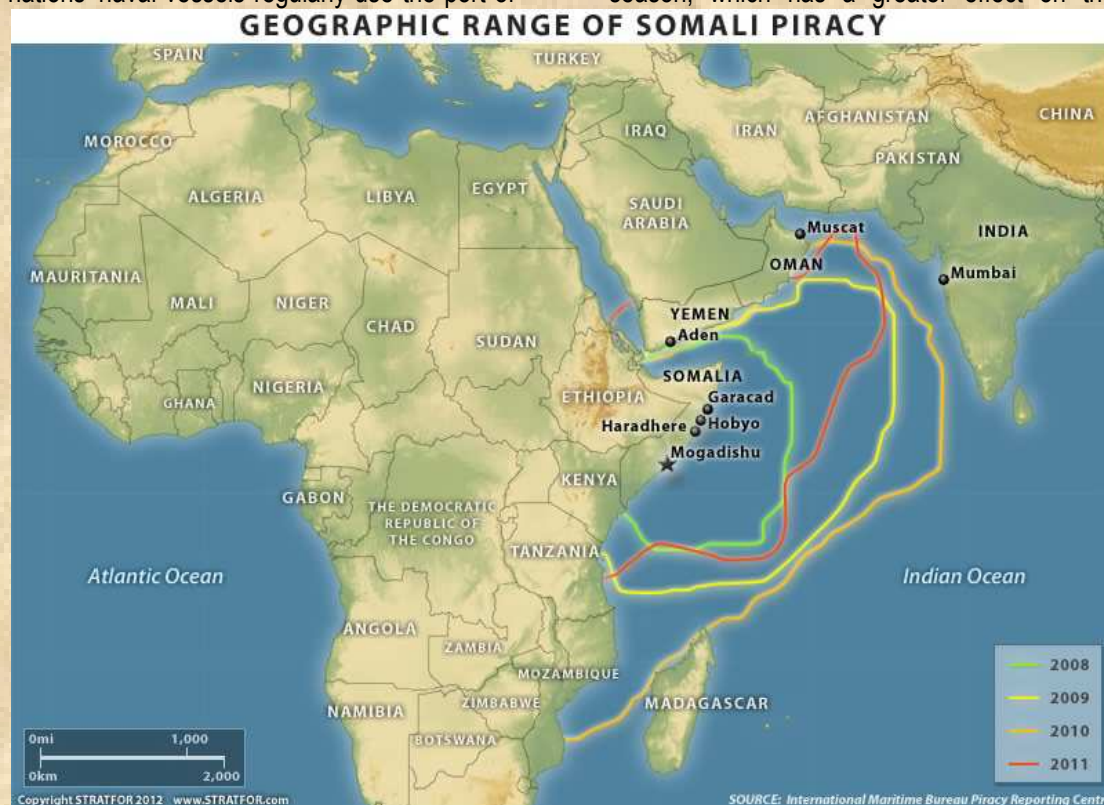
much room to grow, 2011 saw the pirates' area of operations contract. The area in which the pirates hijacked ships in 2011, while still considerable, shrunk to about what it was in 2009 (with the exception of the North Arabian Sea, where the pirates maintained the geographic range of operations they expanded to in 2010).

Although the Somali pirates' area of operations has contracted, it has only done so on the margins; the pirates are still very active within their core area of the Gulf of Aden, Arabian Sea and Indian Ocean. Therefore, this decrease along the periphery does not necessarily indicate a serious limitation of the pirates' capabilities. Most of the ships hijacked in 2011 were in the central Arabian Sea, and two were in the Gulf of Aden.

One hijacking of note occurred within the port limits of Salalah, Oman, on Aug. 20. Ports such as Salalah generally provide increased security protection (in addition to Omani security, other nations' naval vessels regularly use the port of

area in which to operate, as ports are target-rich environments. It is worth watching to see if pirates will seek out new areas of exploitation, such as inside port limits, within their decreased geographic range.

The Red Sea is another area of operations to watch. Not only is it more target-rich than the Arabian Sea or Indian Ocean (ships transit it to reach the Suez Canal), it also does not carry the same threat of naval patrols as the Gulf of Aden, where an international flotilla of naval forces has carved out the International Recommended Transit and escorts merchant ships. Traffic is particularly heavy in the Bab al-Mandeb strait, which connects the Red Sea and the Gulf of Aden. Although pirates only boarded three vessels in the Red Sea in 2011 - - and it is not clear whether the pirates involved in these attacks were Somali or Eritrean -- the Somali pirates have shifted their focus to that area in the past and have been known to operate in the Red Sea during monsoon season, which has a greater effect on the



Salalah for replenishment, particularly the Chinese), yet the pirates who hijacked the MV Fairchem Bogey at Salalah appeared confident enough to operate in what would normally be a less permissible environment. If port security patrols appear to be decreased, or if the pirates feel they can blend in with local fishermen's boats at a port, then that port would be a good

Arabian Sea and Indian Ocean.

The pirates' use of swarming tactics in their attacks in the Red Sea during 2011 is worth noting. On Aug. 7, at least 60 pirates in 12 skiffs attacked a bulk carrier approximately 20 nautical miles off the Eritrean coast. The pirates could use this method to try to overwhelm



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traditional counter-piracy measures. However, it is risky for the pirates in that it forces them to concentrate their forces on one attack, making them more susceptible to foreign naval vessels in the area.

While notable pirate activity occurred in other areas, pirates' operations contracted considerably along the Indian coast in 2011. The Indian navy began counteracting the pirates with increased naval patrols starting in November 2010. The navy also bolstered its presence around the Lakshadweep and Kavaratti islands, with enhanced surveillance and joint patrols. These measures helped Indian authorities apprehend four mother ships between the start of 2011 and the end of March and take the attending pirates into custody, as well as rescue the crews. In addition, on June 18 and June 26, Indian officials captured suspected boats off the western Indian coast. Of the 38 individuals captured, 32 were Somalis suspected of piracy. These instances illustrate the Indians' increased alertness and action against pirates and could indicate that this increased vigilance prevented a successful hijacking in these waters in 2011.

### Hijacked Ship Numbers

Somali pirates hijacked more ships in 2010 than in 2009 -- 49, compared to 45 -- but that trend reversed in 2011, which saw only 31 ships hijacked. Furthermore, before 2010, pirates tended to hijack more ships during non-monsoon seasons, but that trend did not hold in 2010 and did not re-emerge in 2011. Pirates have continued using captured fishing vessels and commercial ships to use as platforms for attacks on larger commercial ships that bring more ransom money. These larger ships make pirates less susceptible to the turbulent waters of the monsoon seasons in the Indian Ocean and Arabian Sea.

### Pirate Ports

The pirates generally have used the same ports, along the north-central Somali coast between Mogadishu and Puntland, from Harardhere in the south to Bandar Bayla in the north. Some reports have said that a number of ships have been taken to Bargaal, approximately 280 kilometers (174 miles) north of Bandar Bayla. Other reports have said that pirates are operating in and around Kismayo, but no reports indicate that ships are being held there. The U.N. Office on Drugs and

Crime reportedly said that pirates are increasingly launching raids from Kismayo, which is also a stronghold of militant group Al Shabaab (whose national factions recently renamed themselves the Somali Islamic Emirate). This port could be a staging ground for logistics, manpower, raids or kidnapping forays along the Kenyan coastline.

### Piracy Countermeasures

Vessels attacked by pirates successfully used the "citadel tactic," in which the crew retreats to a safe room and cuts off the pirates' ability to control the ship, 16 times in 2011, up from 11 in 2010. In all the 2011 cases, the pirates either abandoned the ships or were captured when naval forces arrived. One unusual case was the hijacking of the German MV Beluga Nomination on Jan. 22, 2011. The ship's crew retreated to a safe room, but the rescuing naval ship took two and a half days to get to the ship, and the pirates were able to gain access to the crew. Some reports said the pirates used blowtorches to breach the safe room. No other such cases have been reported so far, but it is a tactic pirates could more broadly use to exploit a weakness Stratfor pointed out in the previous annual update on Somali piracy. This incident also emphasizes the citadel tactic's reliance on relatively quick response times -- within approximately 24 hours -- in order to prevent the pirates from having time to breach the safe room.

Another increasingly used tactic is employing armed guards on board commercial vessels. There has not been a single case reported of a ship carrying armed contractors being hijacked in 58 instances of crews using armed guards to defend against a hijacking. According to a Stratfor source, armed guard contracts are very lucrative, with guards earning \$350-400 per day. The cost for a typical four-man team on a normal 40-day rotation would be \$56,000-64,000 plus whatever the security company needs to make a profit from the trip. These contracts are so lucrative for the security contractors that they have been reported to drop their weapons overboard when the vessel they are guarding is about to enter a weapons-restrictive port and then purchase new weapons for their next contracted voyage.

Armed guards could have been used more in 2011 because several countries -- including Norway, Italy, India and the United Kingdom -- have



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passed laws allowing commercial vessels to employ such guards on board their flagged ships. In the United Kingdom's case, according to a BBC report, the use of armed guards reportedly is authorized only near Somali pirate waters, and the British Transport Department published guidelines for hiring private contractors licensed as armed guards by the Home Department. Italy also allows the use of private armed guards and permits shipping companies to "rent" military personnel and their armaments when traveling through Somali pirate waters. Other countries such as Germany, Cyprus and Greece have been considering enacting similar laws. Furthermore, other countries with large flagged fleets, such as Liberia, Panama and the Marshall Islands, have no laws barring the use of armed guards on board their flagged ships. Japan and the Netherlands reportedly are now the only major maritime nations that prohibit the use of armed guards.

A Stratfor source said that typically, four-man teams of armed security guards embark in the northern Red Sea (likely because Egypt will not let armed guards through the Suez Canal) and travel with a vessel through the Red Sea, the Gulf of Aden, the Persian Gulf and any other trouble spots, then disembark, fly back to Cairo and start the cycle again. These teams work in 12-hour shifts and use cameras to document any security incidents they relay to the naval contingent. If necessary, the guards can radio out an SOS, and they have access to satellite phones if normal communication channels are unavailable. The guards also provide protection for their vessels during ports of call.

If pirates initiate an attack, the security guards have a sequence of intensifying actions to deter attackers: firing tracer warning shots, firing on the pirate skiffs to disable their engines and, as a last resort, shooting to kill. The security guards are armed with sniper rifles, assault rifles with modern optics and shotguns.

The same source told Stratfor that pirates have begun attacking ships via the pilot door (the small door on the hull where the harbor pilot can enter or leave the ship). Because the door is lower down on the hull, it is easier for pirates to access from the waterline than the deck, which must be reached by ladder. To combat this tactic, some ships include "murder holes" over the pilot doors so the security guards can engage pirates if they try to enter the vessel by

the pilot door. Armed guards have also strung concertina wire around the pilot door (a countermeasure that has also been used on the rails at the top of the ship).

The concern with the use of armed security guards (which some crews have voiced) is that the pirates could start using heavier weaponry to overcome the armed guards. However, there appears to be a ceiling regarding heavy weapons; increasingly heavy weaponry could affect a ship's seaworthiness (probably not for larger vessels, but it would be a concern on fishing vessels or dhows) and the products on board. The pirates would want to protect the ship, merchandise and crew, because they would need a navigable ship to return to the Somali coast and would need protected goods and crew in order to negotiate a higher ransom. Furthermore, heavy machine guns are difficult to conceal and operate on board a pirate skiffs; their use could make the pirate skiffs easier for foreign navies to spot and engage, not to mention endanger a skiff's structural integrity -- the movement of the gun during firing could shake a skiff apart. Also, if Somali pirates begin using heavier weapons, foreign navies will be more likely to relax the rules of engagement and be more aggressive in hunting the pirates. Although pirates could begin using heavier weaponry, the most logical response to armed security on board merchant ships would be to halt an attack on an armed vessel and target the approximately 75 percent of ships transiting the Gulf of Aden without armed guards -- though the crews on those ships could still use the apparently effective citadel tactic. Ships have also used other types of non-lethal means to deter pirates, such as foam, sonic weapons, blinding strobe lights, lasers and high-pressure water cannons. A chemical that causes attackers to vomit and mace, which can burn the eyes for up to 45 minutes, reportedly are available to counter pirate attacks. However, these weapons can be expensive to implement, especially for an entire fleet of ships. As more vessels employ these tactics, Somali pirates will face the prospect of fewer hijacking captures as it becomes more difficult to simply call off an attack and focus on a less-defended ship.

Another reported countermeasure is the use of private navies with armed guards protecting ships transiting the Gulf of Aden. Convoy Escort Programme Ltd., the world's first private navy to



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protect merchant ships from Somali pirates, intends to deploy seven armored former naval patrol boats, each with an eight-man security team. Convoy Escort reportedly will charge about \$30,000 for a boat traveling in a convoy of about four commercial vessels for three to four days -- cheaper than the minimum \$56,000 charged for private armed contractors on board vessels. Academi, the private U.S. military company formerly known as Xe Services and Blackwater, had proposed sending private naval forces to Somalia and had even outfitted a ship to send to the Gulf of Aden, but the company later abandoned the idea. Stratfor will be monitoring whether this navy begins or cancels operations. The private navy option could be a response to the austerity measures in Europe that likely will include cutting the number of ships that can be deployed to the EU Naval Force's Operation Atalanta, in which European naval vessels patrol the Gulf of Aden, Arabian Sea and Indian Ocean.

### Other Constraints

Somali pirates face other constraints, including reported raids carried out by Puntland regional authorities against pirate strongholds along the Somali coast. During a two-week operation in October 2011, Puntland authorities reportedly captured 150 pirates and numerous weapons, and in December 2011 Puntland authorities said they cleared out Bandar Bayla, according to Somalia Report. The Puntland authorities also stated that they plan to carry out similar raids in the future. If these land-based authorities follow through with their plans, they could deny the pirates havens and infringe on their operating environment (which Stratfor has pointed out is the only measure that could effectively limit piracy operations, as it would lead to a loss of manpower, a loss of logistic routes and a loss of ports, among other things). However, such land-based operations must become more systematic before they make a lasting difference.

Furthermore, Al Shabaab or its local factions reportedly took over the area around

Harardhere in February. This was said to have pushed some pirates north to Hobyo, while the pirates who stayed in Harardhere reached a working agreement with the Al Shabaab elements in the area in exchange for a portion of the ransom money.

Finally, the Somali pirates could be constrained by Somalia's 2011 drought. Just as numerous Al Shabaab militants returned home to assist their families during the drought, many pirates likely did the same.

### Assessment

Pirates have faced obstacles during 2011 both on the sea and around their havens along the Somali coast. Commercial ships' crews began using more effective tactics to protect their vessels from pirate attacks, while on land the pirates face a shifting militant landscape in Somalia, infringement on bases in the south by Al Shabaab, raids by Puntland authorities and the effects of a severe drought. Together, these various forces have decreased pirates' ability to continue increasing the number of hijackings in a large geographic area. The pirates could recover from 2011 and employ new tactics, such as using blowtorches or explosives to gain access to safe rooms, attacking unsuspecting ships in presumably safe areas such as ports or using swarming tactics or heavier weapons to overwhelm armed guards.

The overall assessment from previous years remains: To effectively deal with the Somali piracy issue, authorities must deny the pirates havens along the Somali coast and address the fundamental issue of Somali economics to decrease piracy's economic appeal. No sustained, coordinated effort has been made to achieve these goals. Since the threat to shipping in this region from Somali piracy does not rise to the level of a strategic threat (it only affects a small portion of regional ship traffic), international forces are unlikely to significantly increase their engagement beyond naval patrols. Tactics and counter-tactics by pirates and seafarers will likely be the dynamic for the near future.

## Islamic extremism remains Norway's biggest threat

Source: <http://www.sacbee.com/2012/01/17/4193085/extreme-islamism-still-biggest.html>

Islamic extremism remains Norway's biggest terror threat, but the danger of lone wolf attacks

has also increased in the aftermath of a massacre by a homegrown anti-



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Muslim extremist, Norwegian security service PST said Tuesday.

Agency Chief Janne Kristiansen told local news agency NTB that over the past three to four years there has been growing concern over the threat of terrorism, but "in 2012 people tied to an extreme Islamic ideology will be our biggest challenge."

In its yearly evaluation of terror threats, PST

Prince Haakon are shown with text calling for Allah to "destroy" them, and others.

PST warned that although the threat from organized nationalist groups hasn't increased following Anders Behring Breivik's killing of 77 people on July 22, the number of single individuals who threaten to use violence with reference to an anti-Islamic agenda is increasing.

"Verily victory comes from Allah! It is coming!"

([new Norwegian Islamist threat video](#))

It also said threats against officials have increased significantly since July 22, and warned that actions such as Breivik's could inspire copycat attacks.

"Continued high migration, combined with weak economic growth and increased unemployment, can create a foundation for increased conflicts along ethnic, social and economic lines," PST noted.

Remarks from Norway's neighbor Denmark, however, contrasted with the Norwegian summary Tuesday, with Jacob Scharf - the head of Danish PST, saying it had not noticed any more people joining extremist groups as a result of the financial crisis.

"What we do see is that the financial crisis to some extent will have an impact on the kind of targets and the activities, especially for the left-wing extremist groups and networks," Scharf added.



said extremists were primarily using conflict stirred up by publication of caricatures of the Prophet Muhammad and Norway's military participation in Afghanistan to fuel hatred against Norway.

Shortly after the report's release Tuesday, police said they were investigating a video posted on YouTube protesting Norway's involvement in Afghanistan, in which images of Prime Minister Jens Stoltenberg and Crown

## U.S. braces for 'new' terror threats

Source: <http://www.wtop.com/?nid=807&sid=2707441>



Evolving terror threats will remain an immense challenge well into the 21st century, according to U.S. government officials.

State Department documents indicate that combating far-flung, well connected "new terrorist threats will require innovative strategies, creative diplomacy and stronger partnerships."

The department's answer is the newly minted Bureau of Counterterrorism, formerly known as the Office of Combating Terrorism. It is designed to utilize a strong hybrid of diplomatic, intelligence,





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investigative and protective tools to neutralize some of the exotic blends of terror threats that may be coming.

The unveiling of the bureau comes at a pivotal time in the war against violent extremism.

"We're very concerned about indigenous groups like Boko Haram [a Nigerian group] hooking up with al-Qaida affiliates, learning greater tradecraft for bombings and other types of attacks," said Daniel Benjamin, ambassador-at-large and coordinator for counterterrorism.

Almost two months after killing al-Qaida leader Osama bin Laden in May 2011, the White House released its national strategy for counterterrorism. Among the top goals was "degrading links between al-Qaida, its affiliates and adherents."

"For all the very impressive blows that have been dealt to that group, it still remains capable and eager to carry out attacks against the United States," Benjamin said.

Much of that capability rests with al-Qaida's ability to influence others. "There's no question that as al-Qaida's senior leadership has found it harder to operate. They've tried to step up their own ability to influence," Benjamin said.

Once al-Qaida successfully attracted the attention of groups such as Boko Haram, it has a full range of terrorism services it can provide to franchisees.

Benjamin says those services include "tips on how to do their messaging more effectively, their recruitment, their finances and so forth. We really don't want al-Qaida affiliates to fund and support groups farther afield, and we're very concerned about the spread about this kind of terrorism."

The prevailing wisdom in U.S. diplomatic circles is that upgrading the Office for Combating Terrorism to its current form puts more teeth into the effort to defeat terrorism.

But experts ask a key question: Why now?

"It seems to me it's probably a move that should have been done immediately after 2001," said Dennis Pluchinsky, a retired State Department counterterrorism agent.

"If at the time, the threat was serious and increasing, then maybe that was the time to promote the State Department's office into a bureau. Doing it now, some 10 years after 2001, personally, I don't understand the rationale."

Benjamin says he can't answer what a previous administration did or didn't do.

"I can say this was done as part of the larger reorganization that the [Secretary of State Hillary Clinton] called for in her major policy document, the quadrennial diplomacy and development review.

"[The review] was her major assessment of the department, what we should be doing, where our major focus should be," Benjamin said.

Pluchinsky says all of the intelligence he and other experts have seen suggests the terrorism threat is has been significantly set back, for now and wonders if "the State Department must be looking at a different threat assessment."

He wonders if the change is just an "administrative" move to increase the State Department's visibility on counterterrorism. He points out the new bureau is not much different from the small office it replaced. "We're doing the same work but we're now doing it on a better platform, with better infrastructure for having the kinds of effects that we want to have and really having the voice that we need to on this important subject," Benjamin said.

Al-Qaida, the Taliban and other violent extremist groups represent just one category of threats facing the U.S. There are nation-states that pose imminent danger to the U.S. That's part of the reason President Barack Obama announced a shift in the U.S. defense policy during a Pentagon news briefing on Jan. 5.

"We'll be able to ensure our security with smaller conventional ground forces," the president said. "We'll continue to get rid of outdated Cold War-era systems so that we can invest in the capabilities that we need for the future, including intelligence, surveillance and reconnaissance, counterterrorism, countering weapons of mass destruction and the ability to operate in environments where adversaries try to deny us access."

Later at the same briefing, Secretary of Defense Leon Panetta said, "Even though the Iraq war is over and a draw down is underway in Afghanistan, the United States still faces a complex and growing array of security challenges across the globe."

At the top of Panetta's list of challenges is "the proliferation of lethal weapons and materials; the destabilizing behavior of nations like Iran and North Korea; the rise of new powers across Asia; and the dramatic changes that we've seen unfold in the Middle East."



**Facial biometrics meet gunshot detectors**

Source:<http://www.homelandsecuritynewswire.com/srbiometrics20120117-facial-biometrics-meet-gunshot-detectors>

Two high tech companies have teamed up to create the world's first system that can detect gunshots and identify the shooter's face

Two high tech companies have teamed up to create the world's first system that can detect gunshots and identify the shooter's face.

To give law enforcement agencies an extra edge in fighting crime, Safety Dynamics, Inc. and Face First are working to integrate their two leading technologies. Together they will combine Safety Dynamics' gunshot detection technology with FaceFirst's facial biometrics processor to identify a shooter's identity in real-time.

Under the combined system, when a gunshot is detected Safety Dynamics' ballistic acoustic sensors can immediately pinpoint the source of the shot and direct a high-resolution camera to

zoom in on the exact location. The shooter's face will be captured and FaceFirst's biometrics processor will then compare the shooter's face against existing databases to determine their identity, or if they are unknown, create a new facial record.

With homeland security contracts becoming increasingly competitive, this partnership to create a single solution could give the two companies a leading edge.

Safety Dynamics is based in Tucson, Arizona and develops a series of gunshot detection technology along with perimeter security, facial, and license plate technology.

FaceFirst of Camarillo, California is part of the Airborne Biometrics Group, which specializes in facial biometrics.

**In death al Awlaki lives on**

Source:<http://www.foxnews.com/politics/2012/01/10/al-qaeda-in-yemen-targets-more-american-recruits/>

In a recent security bulletin, DHS is warning local officials that al Qaeda in the Arabian Peninsula (AQAP) is still actively seeking to recruit Americans, encouraging them to commit acts of terrorism.

In a posthumous video released in December, the radical American-born imam Anwar al Awlaki, who was killed by a U.S. drone strike last September, continues to spread his ideologies, stating "jihad against America is binding."

In the security bulletin, security officials warn that the new video "encourages Western-based Muslims to commit violence," and the "video could inspire violent extremists in the West to conduct attacks." Officials were careful to note that, "We have no indication that the timing of the video's release or any content ... is related to specific, ongoing plotting against the homeland," but law enforcement officials should "remain vigilant for signs of terrorist plotting and to report suspicious activities."

In response to the video, Representative Peter King (R – New York), the chair of the House Homeland Security Committee, said, "Al-Awlaki — even though he is dead — his impact is going to continue probably more than anyone in the Islamic terrorist world."

"He was able to connect with Americans and his tapes, his words, his impact is going to live on. We have to keep that in mind. Al-Awlaki is dead but unfortunately his hate lives on," King added. The security bulletin comes in the wake of two foiled attacks by U.S. citizens.

Last Saturday, authorities arrested Sami Osmakac, a naturalized U.S. citizen who is accused of plotting to bomb nightclubs in Florida and a sheriff's office.

Meanwhile, Craig Baxam, a Maryland native, made his first appearance on court last Monday. Baxam stands accused of travelling to Somalia to join al Shabaab in Somalia.



## Mapping Terrorist Networks To Better Understand How They Operate

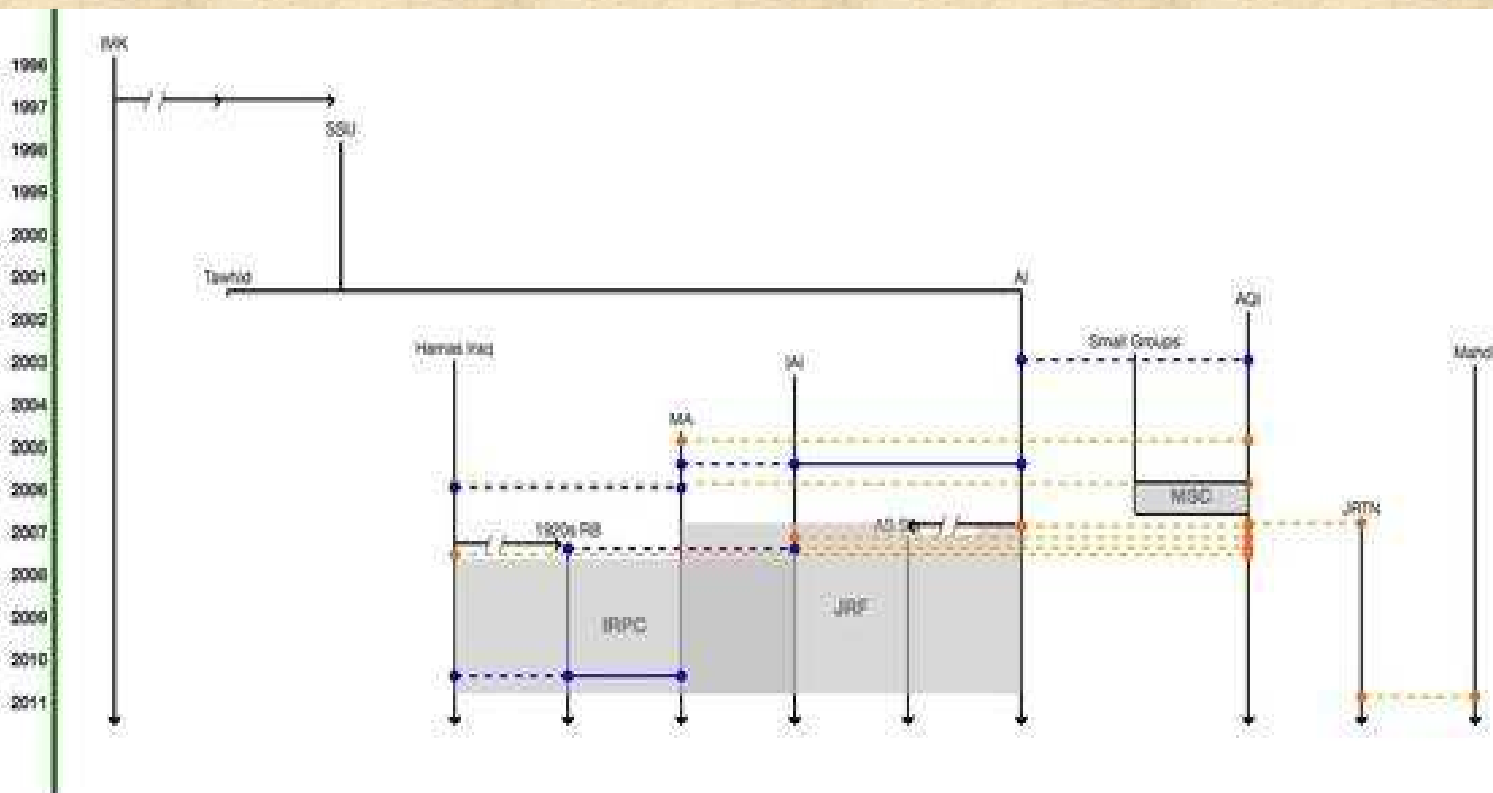
Source: <http://www.fastcoexist.com/1679140/mapping-terrorist-networks-to-better-understand-how-they-operate>

One of the projects spawned by the Department of Defense's massive investment in the social sciences is an ambitious visualization of how militant groups operate and interact.

An ambitious Stanford University project is using government funds to create detailed graphic genealogies of militant organizations. The Mapping Militant Organizations project has now created more than a dozen detailed graphical analyses of militant and terrorist groups worldwide. Currently, only militant

responsible for a variety of interesting projects. In total, the Minerva Initiative has disbursed \$75 million in grants and funding to American anthropologists, economists, political scientists, and other academics.

From the map, you can see that the longest-running terrorist group in Iraq is the Islamic Movement in Kurdistan (IMK), which eventually--through a few different permutations--spawned Ansar al-Islam, which was who Abu Musab al-Zarqawi was associated with before he joined Al-Qaeda in



group information for Iraq has been made available, but other "maps" are in progress.

Funding for the project came from the Minerva Initiative, a controversial Defense Department and National Science Foundation project. The Minerva Initiative gives funding to academics in the social sciences to produce research that can be leveraged by the Defense Department. Anti-military academics have accused the initiative of using America's universities to perpetuate warfare; however, Minerva is

Iraq. The blue lines mean an alliance; the yellow means a conflict.

According to principal investigator Martha Crenshaw, her project is based on the premise that "policy makers as well as scholars need to understand how these organizations relate to each other as well as to the government. We produce online interactive 'maps' that are a combination of timeline and organizational diagrams. These visual representations are linked to detailed



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profiles of the groups in question.”

The Mapping Militant Organizations project isn't the prettiest social science website out there. The data is presented in a minimalist format that primarily uses HTML 5 and Java; the site's layout and design would give a graphic designer nightmares. However, the information being presented is top notch--and it's offered to the public through a novel visualization method that makes explaining complicated relationships easy.

A team of around 10 Stanford students (undergrad and grad) work on the project during the academic year, with a dedicated employee occasionally working full-time during the summer. The students come from a variety of backgrounds and often speak relevant languages. Crenshaw came up with the idea for the project when working on a research project on the reasons terrorists attacked American interests. The idea came up to track the trajectory of militant organizations over time and to visualize the relationships between them. For Stanford, the end result was a graphical relational database of Iraqi terrorism. The Stanford research, which is under the supervision of the Freeman Spogli Institute for International Studies and the Center for International Security and Cooperation (who we've written about for their Empirical Study of

Conflict project) is just one of several efforts to disseminate the relationships between terrorist organizations to a larger public. Jihadist and al-Qaeda fellow traveler Abu Walid al Masri created homemade flowcharts, which were later translated and distributed by Australian terror researcher Leah Farrall. Private firm IntelCenter has a handy side business selling wall-size organizational charts of militant groups such as al-Shabaab. A host of academics, government agencies, and military types also produce similar mapping products for distribution and sale.

Turning the activities of militant organizations into visual data also has unexpected benefits. As Crenshaw told Co.Exist, her research offered unexpected insights. “Although most scholars focus on how and why groups split into rival factions, it's important not to overlook the possibility of cooperation and even mergers. The original Al Qaeda, after all, was the result of a merger. Although it is common wisdom that groups fragment under government pressure (and often government policy is aimed at this end), government actions can also cause them to coalesce. For example, if the government offers some form of participation in the political process, groups may band together to acquire a position of strength.”

► **Go to project's website:** <http://www.stanford.edu/group/mappingmilitants/cgi-bin/>

### Denmark: Millions sent abroad to finance terrorism

Source:<http://jihadimalmo.blogspot.com/2012/01/minst-20-miljoner-till-terrorgrupper.html>

Jakob Scharf, head of the Danish Security Service (PET), said Tuesday that terrorist groups like Al-Qaeda and Al-Shabaab get funds from Denmark.

"PET estimates that around 20 million kroner (~\$3.5m) are collected every year in Denmark to finance terrorist groups abroad," he said. This is only an estimation.

In recent years Danish courts handled three cases of terrorism-financing. The cases involved people and associations who supported rebel movements in Colombia and

Palestine with an overall sum of less than 150,000 kroner.

PET estimates that the groups who enjoy the Danish millions include groups in conflict zones like Iraq, Afghanistan, Lebanon, Palestine and Somalia.

PET says it's often difficult to prove money transactions are related to terrorism because the terrorist networks use many middlemen. However, PET does say that various people have been stopped at airports on their way to conflict zones with large amounts of money.



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### A Hezbollah Threat in Thailand?

STRATFOR, January 19, 2012

By Ben West

Source:[http://stratfor.com/weekly/hezbollah-threat-thailand?utm\\_source=freelist-f&utm\\_medium=email&utm\\_campaign=20120119&utm\\_term=sweekly&utm\\_content=readmore&elq=869fdfa5461d43dbbaa9ba9fe704f895](http://stratfor.com/weekly/hezbollah-threat-thailand?utm_source=freelist-f&utm_medium=email&utm_campaign=20120119&utm_term=sweekly&utm_content=readmore&elq=869fdfa5461d43dbbaa9ba9fe704f895)

On Jan. 12, Thai authorities arrested a man they say was a member of the Lebanon-based Shiite militant group Hezbollah who was plotting an attack in Bangkok. In uncovering the plot, Thai police cite cooperation with the United States and Israel going back to December 2011. Bangkok is indeed a target-rich environment with a history of terrorist attacks, but today Hezbollah and other militant and criminal groups rely on the city as more of a business hub than anything else. If Hezbollah or some other transnational militant group were to carry out an attack in the city, it would have to be for a compelling reason that outweighed the costs.

The suspect was identified as Atris Hussein, who was born in Lebanon but acquired Swedish citizenship and a passport after marrying a Swedish woman in 1996. Hussein was arrested on immigration charges as he was trying to board a plane at Suvarnabhumi airport, Bangkok's main international airport. Police said another suspect is still at large and possibly already out of the country. Hussein's arrest on Jan. 12 was followed by a statement the next day from the U.S. Embassy warning U.S. citizens in Bangkok of the potential foreign terrorist threat in the country and encouraging them to avoid tourist areas. Other countries, including the United Kingdom, Australia, Canada and Israel, issued similar warnings. Thai police have responded by increasing security in tourist areas like Bangkok's Khao San Road and the island of Phuket.

Then, on Jan. 16, some 200 Thai police officers searched a three-story commercial building in a town along the coast 32 kilometers (about 20 miles) southwest of Bangkok. Information on the location and contents of the building was said to have been provided by Hussein after two days in custody. On the second floor of the building, officers found 4,380 kilograms (about 10,000 pounds) of urea-based fertilizer and 38 liters (about 10 gallons) of liquid ammonium nitrate -- enough materials to construct several truck bombs comparable to the one detonated at the

Marriott hotel in Islamabad in 2008. Urea fertilizer can be used to manufacture the improvised explosive mixture urea nitrate, which was the main charge used in the 1993 World Trade Center bombing. The compound is also frequently used in improvised explosive devices in Iraq and to some extent in Afghanistan. On the ground floor of the same building, police found reams of printing paper and 400 electric table fans in cardboard boxes. The following day, a Bangkok court charged Hussein with illegal possession of explosive materials. As in many other countries, a permit is required for handling such large amounts of fertilizer in Thailand.

Since Hussein's arrest and the police raid, a flurry of statements from Thai authorities have given contradictory accounts of what happened. Gen. Yuthasak Sasiprapha, Thailand's defense minister, seemed comfortable connecting the U.S. and Israeli warnings to the arrest and seizure, stating that Hussein and other conspirators were linked to Hezbollah and had chosen Bangkok as part of a plan to retaliate against Israel. The general speculated that the Israeli Embassy, synagogues, tour companies and kosher restaurants could be targeted.

The defense minister's speculations are logical. In 2010, Thailand received 120,000 Jewish tourists, and Bangkok itself has a large Jewish community, complete with a Chabad house (a Jewish cultural center and one of the targets in the 2008 Mumbai attacks). According to its website, the Israeli Embassy is located in a commercial office building with (from what we can tell from photographs) relatively little perimeter security. Hundreds of thousands of Americans also visit Thailand each year. At the same time, the United States and Israel are engaged in a covert war with Iran that has most recently seen the assassination of an Iranian scientist allegedly involved in the country's nuclear program. Since Hezbollah has been considered a proxy of Iran, the United States and Israel have long anticipated reprisal attacks from



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Iran via Hezbollah against U.S. or Israeli targets around the world.

While there are certainly plenty of U.S., Jewish and Israeli targets in Thailand in general and Bangkok in particular, other officials have given different accounts of the alleged plot that add more nuance. According to National Police Chief Priewpan Damapong, Hussein insisted that the materials seized were not intended for attacks in Thailand but were going to be transported to a yet-to-be-named third country (a Stratfor source has cited the Philippines as a logical destination). He also allegedly told authorities that, although he was a member of Hezbollah, he was not a member of the group's militant arm. A Hezbollah official in Beirut, Ghaleb Abu Zainab, told the Lebanese Broadcasting Corp. that Hussein was not a Hezbollah member, while Stratfor sources have told us that he was. Our sources also have confirmed Hussein's reported confession to police that he was on the business side of things -- likely involved in procurement and logistics -- rather than the militant side, which involves such things as bombmaking or operational planning. As a Swedish passport holder, Hussein would have much more access to business connections, so it makes sense that Hezbollah would want to compartmentalize his skills.

Most other official statements since Gen. Sasiprapha's have focused on softening the threat and mitigating the damage done to Thailand's tourism industry. Thai Prime Minister Yingluck Shinawatra has called on the United States to revoke its warning, saying it will damage the country if it is prolonged. Hence, it is not surprising that tidbits released from Hussein's purported interrogation have moved the spotlight away from the domestic threat and focused more on targets abroad.

The historical record shows ample precedent for attacks by foreign extremists in Bangkok. In 1972, members of Black September took over the Israeli Embassy in Bangkok and held diplomats hostage there for 18 hours. In 1988, Hezbollah gunmen hijacked Kuwait Airways Flight 422, which was departing Bangkok for Kuwait City, in an effort to coerce the Kuwaiti government to release the "al-Dawa 17," a group of Shiite militants being held in Kuwait. And in 1994, a truck laden with explosives was en route to attack either the U.S. or Israeli Embassy (the investigation did not yield conclusive results) when a traffic accident

disrupted the plot. Bangkok has long been on the map for terrorist operational planners.

During the 1970s, 1980s and 1990s, Hezbollah and other groups conducted dozens of attacks targeting Jews, Israel and Israel's allies around the world. However, over the past decade, Hezbollah has become a more serious political party in Lebanon, and while its international network is still in place, its activities are increasingly focusing on illicit business ventures rather than terrorist attacks. The shell corporations and drug-smuggling networks that for years provided the means to fund ideological terrorist operations have, in many ways, become the end itself. Hezbollah members who have grown rich off the international network are more interested in spending the cash from the network and building up political patronage at home than in provoking powerful enemies abroad. For example, Bangkok is a hub for acquiring counterfeit documents, which are a lucrative commodity around the world and part of Hezbollah's criminal enterprise. Conducting an attack in Bangkok would likely disrupt a node in the network and ultimately affect the group's bottom line.

Thus, Hezbollah's profile and set of interests support Hussein's reported claims that the bombmaking materials that police found were being moved out of the country and were not intended for use in Bangkok or other tourist locations in Thailand.

Other details from the case support this scenario. The fertilizer was to be hidden in the 400 table fan boxes found in the same building, a move conducive to smuggling the fertilizer, not constructing explosive devices. The sheer amount of fertilizer (nearly 5 tons) is a wholesale amount. The largest vehicle-borne improvised explosive devices (VBIEDs) in recent history have contained about a ton of fertilizer. The device used in the 1993 World Trade Center bombing consisted of about 1,300 pounds of urea nitrate. Constructing and delivering bombs larger than that tends to create technical and logistical hitches. It is much more likely that such a large amount of fertilizer would be meant for multiple smaller or medium-sized devices.

While urea-based fertilizer and ammonium nitrate are key ingredients for the main charge of a VBIED, many more materials are required to make it a viable device, including nitric acid,



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which must be mixed with urea-based fertilizer to make urea nitrate. (Urea nitrate is highly corrosive and has typically been mixed and held in plastic industrial chemical drums. While cardboard boxes would be fine for holding the urea-based fertilizer, they certainly would not be heavy-duty enough to contain the urea nitrate mixture.) In the Bangkok case, there has been no mention of other important bombmaking components such as fuses, timing mechanisms or detonating charges or of a competent bombmaker to put it all together.

In other words, while some of the materials to make a bomb were present in the commercial building that police raided, there was no viable device there. Nor has there been any mention of weapons such as rifles, handguns or grenades, which are often (although certainly not always) involved in terrorist attacks. Some media sources alleged that Hussein was plotting a "Mumbai-like" attack, which would have required a stash of automatic rifles, ordnance, communication devices and other tactical tools that have yet to surface.

Just as Bangkok is an attractive business hub in Southeast Asia for legitimate businessmen, it is also an attractive hub for illicit businessmen.

In 2008, Thai police arrested Russian arms smuggler Viktor Bout after agents from the U.S. Drug Enforcement Administration, posing as members of the Revolutionary Armed Forces of Colombia guerrilla group trying to negotiate a deal to buy weapons, incriminated Bout during a meeting in Bangkok. It appears that Hussein's role in this case would have been an administrative one similar to Bout's: sourcing the fertilizer, finding a place to stockpile it and concealing it in innocent-looking fan boxes. This would not make him any less guilty of assisting a militant group, but it would deflate the theory that Hezbollah was plotting to use this material in an immediate attack in Bangkok.

This is not to say that Hezbollah or some other militant group will not conduct an attack in Bangkok in the future. But it would take a lot to convince group leaders that the financial pain of an attack in the city would be worth the ideological gain. And the recent alleged plot should remind investigators and policymakers to remember the financial bottom line as well as the ideological bottom line when assessing future terrorist threats.

## NYPD developing portable body scanner for detecting concealed weapons

Source: <http://www.gizmag.com/nypd-portable-gun-scanner/21147/>



The New York Police Department is developing a portable scanner for detecting concealed guns on peoples' bodies (Photo: NYPD)



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You have to feel sorry for the police officers who are required to frisk people for guns or knives - after all, if someone who doesn't want to be arrested is carrying a lethal weapon, the last thing that most of us would want to do is get close enough to that person to touch them. That's why the New York Police Department teamed up with the United States Department of Defense three years ago, and began developing a portable scanner that can remotely detect the presence of a gun on a person's body. The NYPD announced the project yesterday.

The device uses infrared light rays to image radiation being emitted by a person's body. Wherever a solid metal object such as a gun is blocking those rays from reaching the body, a silhouette of that object will appear on the scanner's screen. So far, the technology only works from a distance of about three or four feet (about one meter), although NYPD Commissioner Ray Kelly hopes that its range can ultimately be extended to at least 25 meters (82 feet).

The plan is for the scanner to be mounted on a van, then used on suspects who would otherwise have to be physically searched.

## Understanding the Developmental Dynamics of Terrorist Organizations

By Aaron Clauset and Kristian Skrede Gleditsch

Source: <http://www.santafe.edu/media/workingpapers/09-07-021.pdf>

Traditional studies of terrorist group behavior focus on questions of political motivation, strategic choices, organizational structure, and material support, but say little about the basic laws that govern how the frequency and severity (number of deaths) of their attacks change over time. Here we study 3,143 fatal attacks carried out worldwide from 1968–2008 by 381 terrorist groups [9], and show that the frequency of a group's attacks accelerates along a universal trajectory, in which the time between attacks decreases according to a power law in the group's total experience; in contrast, attack severity is independent of organizational experience and organizational size. We show that the acceleration can be explained by organizational growth, and suggest that terrorist organizations may be best understood as firms whose primary product is political violence. These results are independent of many commonly studied social and political factors, suggesting a fundamental law for the dynamics of terrorism and a new approach to understanding political conflicts.

For those interested in the quantitative study of terrorism, I recently stumbled onto the work of Aaron Clauset and Kristian Skrede Gleditsch entitled "The Developmental Dynamics of

Terrorist Organizations." I guess the goal was to make sure very few people working in terrorism/counterterrorism studies read this article as it was published under "Physics and Society" at the Cornell University Library. Both the first and second versions of this article are excellent. I personally like the first version as it is shorter and written more as an executive summary making the conclusions easier to comprehend. I'm sure academics like the latter version as it is long and exhausting which fits their style.

Here are the key points I noted and I encourage all those interested in terrorism and counterterrorism research to look at Clauset and Gleditsch's research methodology and the construction of their data. Their empirical efforts are excellent and terrorism research could stand to use more interdisciplinary approaches like this. Here's a summary from page 1 of their 2009 version.

"Contrary to common assumptions, young and old groups are equally likely to produce extremely severe events. Older groups, however, remain significantly more lethal overall because they attack much more frequently than small groups, not because their individual attacks are more deadly."

This is an important point for those analyzing a declining al Qaeda. If al Qaeda were to conduct a large attack on the West tomorrow, it would not necessarily mean that al Qaeda is stronger. Instead, to assess the size, strength, support and following of al Qaeda, one should





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examine *the pace* of al Qaeda and its affiliates' attacks, not the severity. Here's an additional research result:

"The strong dependence of attack frequency on experience suggests that the timing of events is governed by organizationally internal factors, like growth and learning, related to group development, e.g. recruitment, personnel, turnover and internal coordination.... furthermore, we note that curtailing the frequency of a group's attacks, perhaps by limiting growth, would reduce the cumulative risk of very severe attacks."

This quote is also important:

"Severity is inherently random, governed by contingent details associated with the particular attack, the particular group, etc."

Overall, I think this research appears highly instructive to understanding the rise and

decline of al Qaeda. I recently noted al Qaeda's "Put Up or Shut Up Problem." While they are just as likely today as much as in the past to execute a mass casualty attack, evidence suggests their pace of attack has slowed dramatically and thus their organization is likely shrinking in size exponentially with each delay in attacks. For al Qaeda to inspire new recruits and rejuvenate their movement, they need to execute a successful attack. Likewise, executing successful attacks requires persistent recruitment and talent development through training – two constrained inputs to al Qaeda's operations in 2012. Al Qaeda, not dead, but without a successful attack – dying. So remain vigilant and don't overestimate al Qaeda's strength even if they do pull off a successful attack.

*Aaron Clauset works at Santa Fe Institute, USA; Kristian Skrede Gleditsch is from Department of Government, University of Essex, UK and Centre for the Study of Civil War, Oslo, Norway*

**NOTE:** You can download full document from Newsletter's website – "CBRNE-CT Papers" section.

### **Armed, ready and waiting: Special forces give a show of strength on the Thames ahead of mammoth Olympic test of British security**

Source: <http://www.dailymail.co.uk/news/article-2088986/London-2012-Olympics-security-Special-forces-strength-Thames.html>

Britain's elite military and police teams joined forces in a combined exercise to give a glimpse of the sheer scale of the country's biggest peacetime security operation yesterday.

Operation Woolwich Arsenal Pier saw the Royal Marines and Scotland Yard take command of the River Thames in a determined show of strength as part of a security exercise for the London Olympics.

The British muscle on show was designed to test the water for the joint operation, and to illustrate the country's readiness against terrorism.



© Getty Images



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**Action stations:** The Metropolitan Police and Royal Marines in offshore landing craft, rigid inflatable boats (RIBs), a Lynx helicopter and other craft speed along the river Thames near Woolwich during a



safety and security planning exercise for the London 2012 Olympic Games

**Elite force:** British security teams take to the River Thames in London as part of a massive security rehearsal to foil terror disaster at the Olympics

Around 100 marines and 50 officers rehearsed a string of high-speed drills amid fears attackers could use the waterways to launch onslaughts on London landmarks.

About 50 marine police officers in rigid inflatables and fast response boats were joined by up to 100 military personnel and a Royal Navy Lynx helicopter for the exercises.

Assistant Commissioner Chris Allison, head of the force's security operation for the Games, said a Mumbai-style terror attack was one of a host of potential threats to the games.



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**Armed and dangerous:** A Royal Marine participates in a security exercise along the River Thames in London, England. The exercise including around 44 police officers, 94 military personnel, 15 boats and a Royal Navy Lynx helicopter was conducted by both the Metropolitan Police and the Royal Marines and designed to test their joint capability ahead of the 2012 London Olympic Games.



**The line of resistance:** The Royal Marines and Met Police form a line across the River Thames as part of the security operation. The costs of security for the 2012 London Olympic Games is estimated to reach more than 1 billion euros, it has been reported.



**Towering responsibility:** A police inflatable rib performs during a combined Police and Royal Marines security exercise on the River Thames in London. In the background, left, stands the Thames Barrier with Canary Wharf looming over the proceedings

Speaking on the shores of the Thames, he said: 'There is no specific threat from the river but we would be failing in our duty to ignore it at games time.

'What you have seen today is the sort of things we can do.'

Despite a heavy military presence on show

today, Mr Allison insisted the sporting event would remain a 'blue games'.

The Thames runs directly past the O2 Arena, which will be known as the North Greenwich Arena for the purpose of the Games, when it will host events including gymnastics. The river will also be used to transport tourists between venues via water buses and a new cable car.

Typhoon jets and HMS Ocean, the largest ship in the Royal Navy's fleet, will eventually be deployed to protect the London 2012 Games along with up to 13,500 military personnel.



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**Terror attack:** Looking like something from a Hollywood blockbuster, the Royal Marines simulated a



dramatic high-speed boarding of a clipper Hydrofoil via two speedboats

**On board:** Armed members of the Royal Marines then boarded the Hydrofoil via the roof to continue the



military exercise

**Air and sea assault:** All the security measures that will be needed along the length of the River Thames for the duration of the Olympics were out in force yesterday



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**Last line of defence:** The massed ranks of the security forces take up position across the River Thames in London during the security exercise

'If we need the military support, it is there,' he added.

'All of our planning is designed to mitigate against potential risks during the summer of 2012, and this is an example of where we will be using specialist military capability to support us.

'This exercise is not in response to any specific threat, but is part of our planning to pre-deploy certain specialist assets to bolster our operation.

'This will be a summer like no other in London. The Thames runs through the very heart of our capital and will be a popular place for people who want to be part of the Olympic spirit.

'his is all part of our planning to ensure this summer's events take place safely and securely.'



**On patrol:** The Met police in London take part in the security run-through. It is thought that the cost of the security operation for the event will top a billion euros.



**Does Social Media Help or Hurt Terrorism?**

Source: <http://blogs.voanews.com/digital-frontiers/2012/01/21/does-social-media-help-or-hurt-terrorism/>

The recent headlines were enough to concern even the most cynical reader. “*Terrorist groups recruiting through social media*,” blared the headline at the CBC’s website. “*Social Media Gave Terrorist Groups Second Wind*,” read the report at [pixelsandpolicy.com](http://pixelsandpolicy.com). “*Terrorists making ‘friends’ on Facebook*,” topped the Digital Journal story, underscored by an image of a masked person brandishing an automatic weapon.

Why all the alarm? It turns out these and many similar stories were all prompted by a new study by University of Haifa communications professor Gabriel Weimann. In it, Wiemann asserts that “...90% of terrorist activity on the Internet takes place using social networking tools,” a claim also previously made by researcher Evan Kholmman. That terrorists were using the Internet took no one by surprise; that nearly all of their activity takes place in the relative open of social networking did.

“As we know from marketing, there’s a distinction between push and pull,” Dr. Weimann tells us:

“The pull strategy means you wait in your store and wait for the customers to come, and the push strategy means that you start pushing your product to the customers by knocking on their doors. When it comes to terrorism online, they used to apply a pull strategy; waiting in chat rooms for supporters, interested people, and members of the group to join in. Today, using the social networks, they can actually come to you. That is, using the social nature of Facebook, a page opens to another page, and so on. Friends and friends of friends, like widening circles, all become a huge social web. They can use all that by getting only the first to post the messages they want.”

In Weimann’s view, terror groups have three goals for using the web: communication, coordination, and recruitment. And it’s this last goal – finding new members willing to take arms for their cause – that causes him the most alarm.

“If you’re a student, or you’re a journalist preparing an article related to a terrorist group, and you use Google search in a very naive way, you may very likely hit on a website which was posted or created by terrorists, without

even knowing it. If you’re an alienated Arab or Muslim living in Europe or North America, and you’re just looking for companion, someone who shares your loneliness and you’re looking for social bonding, you may end up with terrorists online without even knowing it. This spread of online propaganda is done in a very smart, concealed way so that sometimes very naive populations may be seduced and tempted.”

“That is not a well-founded fear,” counters Dr. William McCants, a Middle East and terror researcher at the Center for Naval Analysis (CNA) outside Washington. “The most they’ve been able to do is perhaps steal some credit cards and blackmail some people, which would definitely be a concern, but it’s not as if they’re going to shut down a power grid anytime soon,” he says. “It’s really a coordination tool, and much less a recruitment tool.”

McCants readily admits that terror groups are trying to use the web for propaganda purposes. The problem, he says, is that they’re just not reaching their target audience.

“If you look at the (the Somali Islamist group) Shabab’s Twitter feed, most of their followers are DC area analysts. They’re not youth that are interested in the movement. We haven’t seen the numbers that would substantiate people saying there are wide swathes of youth who are joining up as a result of reading propaganda online. The numbers of recruits are quite small, estimates both by militants aligned by Al Qaeda and by outside researchers (are) that only .00001 % of people who look at propaganda actually decide to take up arms on behalf of Al Qaeda. That’s a vanishingly small number.”

So are terrorists winning or losing their wars in the social networking realm? Many researchers say that’s simply the wrong question. “Terrorists use the Internet just like anyone else. They use it to communicate, to share ideas, to share tactics and seek out new followers,” says McCants. “I think the Internet is particularly effective for finding like-minded people and coordinating with them. But I am very skeptical about its utility in generating new recruits.”

Former CIA case officer, and now author, Marc Sageman, sees a



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landscape composed of fewer disciplined organizations like al Qaida, and more “self-recruited wannabees (hopefuls)” operating alone with only one or two other trusted associates. These solo actors may then likely turn to the Internet primarily for information: how to construct bombs, monitor security force movements or other tactics honed by jihadists in Afghanistan and Iraq. But this would only happen once the individual had decided on a terrorist course.



Undated image of terror suspect Colleen LaRose, who used the online name "Jihad Jane."

Researcher Kholmman, however, sees the web becoming an ever more potent tool for “soft” psychological warfare – militants boasting of accomplishments and creating the aura of a successful group that others may want to join. For example, while he was alive, American cleric Anwar Al-Awlaki preached heated inducements to jihad from his base in Yemen. His sermons were fiery, exciting, and in English, the language of Colleen LaRose of Pennsburg, Pennsylvania. In time, Colleen became infamous by her new adopted

character “Jihad Jane,” and was eventually charged with conspiracy to commit murder and support of terrorists.

It’s those stories, even as few as there are now, that Gabriel Weimann focuses on.

“We have to react. We can’t leave the stage open to the bad guys. There are many ways to fight back but first of all we must be aware of it. We must be aware that online we are now fighting a new type of terrorism. It’s a new type of arena, a new type of war in cyber-space. For

this type of war we need a new type of soldiers and weapons. It’s not tanks and it’s not explosives and airplanes and so on. What we need are experienced people who can...either block access to those websites, and can penetrate social networks and post alternative messages and try to compete with the terrorist scenarios of doom, death and destruction with a message of hope, peace and togetherness.”

But CNA’s William McCants says it’s less about war and

weapons, and more about understanding the limitations of the Internet:

“I think those terms are the wrong way to think about it. They are not using the Internet as a weapon, that just has not been borne out anywhere. The most they’ve been able to do is perhaps steal some credit cards and blackmail some people, which would definitely be a concern, but it’s not as if they’re going to shut down a power grid anytime soon. It’s really a coordination tool, and much less a recruitment tool.”

Whatever the most accurate view, it’s a fair bet that as long as we have terrorists operating in the real world, they will find their way to cyber-space as well.



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### Is Thailand a new terrorism playground?

By Kavi Chongkittavorn

Source:<http://www.nationmultimedia.com/opinion/Is-Thailand-a-new-terrorism-playground-30174278.html>



Sixteen hours prior to the US government issued a warning of terrorism attack in Bangkok on Friday, the 13th January, at 4.00 pm., Hussein Atris, 47, a Lebanese-Swedish passport holder, was apprehended at Suvarnaphoumi Airport near midnight on Thursday. What came after the following days showed the huge perception gap of Thai policy makers and their counter terrorism measures with the international community. Worsen still was the unpreparedness of Thai security apparatus to face up with the perceived threats of highly mobile and sophisticated terrorism networks. No wonder, they are still in denial.

Atris was under the watch list since Dec 10, 2011 when the Thai intelligence was alerted that a group of Hezbollah operatives, who were in and are coming to Thailand, could plan terrorist attacks in Bangkok, targeting foreigners, in particular Israeli citizens and assets. On the list are places they frequently visit or stay such as Khaosan Road (cheap hotels and a Chabad), Samui and Pangan Islands (for Full-moon parties) and Sukhumvit Soi 22. Although the Special Branch Police have been on the lookout, they did not have any lead as bits and pieces of intelligence were not case specific.

It was a stroke of luck that Atris was not aware that his name was on the wanted list. Had he chose to exit through land check-points, say, at Nongkai on the Thai-Lao border, he could slip out without notice—indeed not all computers at land border check-points are linked to the

immigration's headquarters. After hours of intense interrogation, Atris disclosed the location of a three-story building in Mahachai, Samutsakon on the outskirts of Bangkok where he has accumulated explosive materials—urea-based fertilizer and ammonium nitrate. The Thai authorities believed that they were destined for the third countries not for local targets.

Thailand is no stranger to such terrorist plots targeting Israeli assets and citizens. In March 1994, a Hezbollah-linked group planned a car bomb attack at the Israel Embassy, which was situated in Langsuan. Again, by sheer lucks, the mission was aborted as the car-bomb miraculously broke down. The incident, known among the Thai intelligence, as "Lung Chum (Uncle Chum)" affairs--referring to the hijacked Thai driver who was killed and tied up to





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the bomb hidden inside the car—serves as a fresh reminder that changes have been for too little and slow in the ways and methods the Thai security apparatus and policy makers reacted including the public's benign attitude on the perceived terrorist threats. According to a latest ABAC poll released last weekend, 55.9 per cent of Thais do not believe that terrorist attacks would happen in Bangkok while 58.1 per cent thought it could occur elsewhere.

No wonder, all the top echelons of Yingluck government were furious, if not over reacted, to the US alert on terrorism warning on its website. They complained the short notice given to them by the Bangkok-based US embassy. Foreign Minister Surapong Tohvichakchaikul criticized the US and expressed disappointment for not closely consult with the Thai side before the warning was flagged. Judging from the knee-jerked responses by several government leaders, it showed that the Pheu Thai ruling party was hyper sensitive as the warning came a few days before the Lunar New Year celebration last weekend. They feared that tourists would cancel flights and trips as well as damage the post-flood business environment. They demanded the US to withdraw it as soon as possible but the US refused. Further adding salts to the wounds, additional 17 countries have followed the US terrorist alert. Last week ahead of the Lunar New Year, China withdrew the travel advisory altogether in responding to Yingluck's request. Foreign concerns are for the safety of their citizens but somehow, the Thai government failed to comprehend that any mass-casualty terrorist attack over here would put the Thai lives in jeopardy as well.

The alert, while it was credible, has not impacted very much on foreign visitors which included US lawmakers—crowding the Suvarnaphoumi airport over the past week. In reality, with specific and accurate information on locations of possible terrorist attacks, visitors would choose safer places to visit. As such, it also boosts the country's counter-terrorism credibility. So the Thai authorities have to be open-minded because the arrest of Atris could represent a harbinger of the future on terrorist threats on Thai soils. With his remaining accomplices are still on the run, the foreign embassies chose to adopt the same precaution. In the case of Thailand, for instance, inaccurate information and naïve official comments on floods management and

controls caused not only confusions but also economic damages and scared off foreigners.

It is an open secret that Thailand is a haven for terrorists as well as transnational criminal groups. For decades, they have been using the country as a center to procure illegal materials (arms, drugs or banned chemical and explosive substances), laundry money, forging foreign currencies and travelling documents. Given its centrality in the continental Southeast Asia with nearly one-thousand flights daily in operation, Thailand remains "the" ideal logistic hub for terrorist operations elsewhere. Still, the concerned Thai authorities are not up to the task. For instance, the Immigration Bureau and Special Branch Police are still under staff and lack counter-terrorism training. They have not yet tightened immigration regulations, improved surveillance or set up a viable IT system to anti-terrorism global networks.

While terrorists have changed their strategies but the Thais have not changed their mindset. They naively think that Thailand is a friendly country and has no enemy. Their mantra is still the same: we can turn blind eyes on activities if they do not harm the Thai people. Otherwise, there would be better diplomatic cooperation and communication as well as the display of more humility from the Thai side.

The immigration bureau is notorious for being unprofessional and corrupted without thinking of broader security implications. Under the command of the Royal Thai Police Headquarter, the immigration procedure is also subjected to police bureaucracy and culture. To cope with future challenges related to terrorism and massive cross-border movement, the bureau needs to be detached from the police headquarters and has its autonomy and staff. After the car registration department spin off as an independent bureau away from the police orbit, it has been rated as one of the most efficient government agencies and thriving.

During the 1994 car bomb investigation, the Thai police missed all the important clues and many forensic evidences left inside the car including names of culprits in Arabic languages were overlooked. In retrospect, the episode also revealed the benign attitude of society at large that they did not have any idea about the danger of international terrorism. For instance, the Hezbollah group could procure assets and explosive materials without producing any identification and documents. To be



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fair, today some of these procedures have improved, due to the insurgent activities in southern Thailand, but not the public awareness as a whole.

The warning is a crude wake-up call for the security officials in charge and public in

general. Luckily, this time the only casualties were limited to the diplomatic rows between Thailand and key allies. In the future, if the Thai vulnerabilities continue, terrorists will continue to exploit gaps and the casualties might not be just words.

### Al Qaida 'planned to take German hostages'

Source: <http://www.thelocal.de/national/20120122-40263.html>

**Documents seized in May linked to al Qaida leaders indicate that the terrorist organisation was aiming to take hostages in Germany and other Western countries as part of a "war of attrition," according to a newspaper report.**

In an article published on Sunday, German daily *Tagesspiegel* said security sources traced the papers to al Qaida leaders on the border of Pakistan and Afghanistan. The documents were discovered when authorities arrested two suspected Islamists in May 2011.

One of the strategy papers said al Qaida was planning a combination of smaller and larger attacks in order to "drive the enemy to desperation." According to other documents, the terrorist group was planning to take hostages and then kill them. They also described plans to use poisons and disguises.

Al Qaida reportedly expected that spreading fear among the population and the implementation of more repressive



tactics by authorities would result in the marginalisation of Muslim communities, which would in turn bring in more recruits for the Jihad.

German authorities found the documents, which were encrypted electronic files, when they arrested suspected al Qaida member Maqsood L. of Austria last spring. He and another man alleged to be his accomplice, 26-year-old Yusuf O. from Berlin, will appear in court on Wednesday.

Yusuf O. is accused of helping found a terrorist group, the "German Taliban Mujahideen" (DTM) with other German Islamists in Pakistan's Waziristan region, starting in September 2009. He later allegedly joined al Qaida.

He and Maqsood L. are suspected of traveling to Pakistan in July 2010, where they were instructed to carry out al Qaida's mission in Europe.

Security experts said the documents allowed German authorities to learn more about the al Qaida leadership's strategic planning for the first time.

### Argentina nabs Iranian-Hizballah cell, aborts third Habad attack

Source: <http://www.debka.com/article/21689/>

Argentina has captured a three-man Iranian-Hizballah cell and is hunting for the rest of the network, according to exclusive debkafile sources. Its counter-terror police were a step ahead of attacks plotted against several of the

10 Habad centers in the country, part of a worldwide joint terrorist offensive against Israeli and Jewish targets. Two strikes were thwarted earlier this month in Thailand and Azerbaijan.



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The three-man cell was captured in the Argentine resort town of San Carlos de Bariloche, 1,680 kilometers from Buenos Aires, a favorite starting-point for Israeli backpackers touring Patagonia and the Andes. The town is situated on the banks of Lake Nahuel Huapi, a major tourist attraction of the Rio Negro district which is famous for its beauty.

Argentina's anti-terrorist Federal Special Operations Group, known as T4, waylaid the three terrorists on tips from US and Israeli intelligence. In their possession were incriminating documents and maps.

Habad hospitality centers and Jewish institutions in the country were then shut down and given extra security guards, as was the Israeli embassy in the capital.

In 1992, the embassy was attacked by Iranian terrorists killing 29 people and injuring 242. debkafle's intelligence and counter-terror sources reveal that one of the things the investigation seeks to discover this time is whether the captured Iranian-Hizballah cell was given a safe house, guidance and aid by family members of World War II Nazi criminals who won sanctuary in Argentina.. At the time of the Israeli embassy bombing twenty years ago, the Iranian and Hizballah terrorists were suspected of working hand in glove with local pro-Nazi elements. Argentina, Germany and Israel never confirmed this.

However, San Carlos de Bariloche is known as a post-1945 Nazi haven. Two books by British writers published in 2011 even claimed that Adolf Hitler and Eva Braun had managed to escape from Berlin and reach safety in this region. This rumor was always denied.

The terror alert Buenos Aires declared this week was also communicated to Chile, Peru, Uruguay and Mexico, in case additional Iranian-Hizballah teams were heading for Israeli and Jewish targets there too.

The plot Argentina foiled after Thailand and Azerbaijan indicates that Iranian intelligence and Hizballah's special security arm are in the midst of a worldwide terror offensive against Israel and Jews. Habad centers were picked out because their doors are always open to travelers, easily identifiable and accessible. They are often packed with large numbers of Jewish and Israeli visitors. The attackers are therefore assured of a big splash in the

international media – if they pull off an attack. In November 2008, Lashkar e-Taiba, the Pakistani arm of al Qaeda, seized Habad House in Mumbai and murdered eight Israelis and American Jews before blowing the building



up. The rabbi's small child was the only survivor, rescued from the captured building by his Indian nanny.

In Bangkok, a member of the Iranian-Hizballah terrorist team, on his way with at least two confederates to blow up the Habad center after holding its occupants hostage and killing them, was captured two weeks ago, thwarting the attack. Then, on Jan. 19, Azerbaijani authorities nailed an Iranian intelligence-Hizballah cell in Baku in time to save the local Habad community center in the city.

Joint Iranian-Hizballah terrorist tentacles have already reached into three continents for an all-out drive to reach their prey – so far without success, owing to the cooperation among counter-terror agencies which remain on sustained high alert.



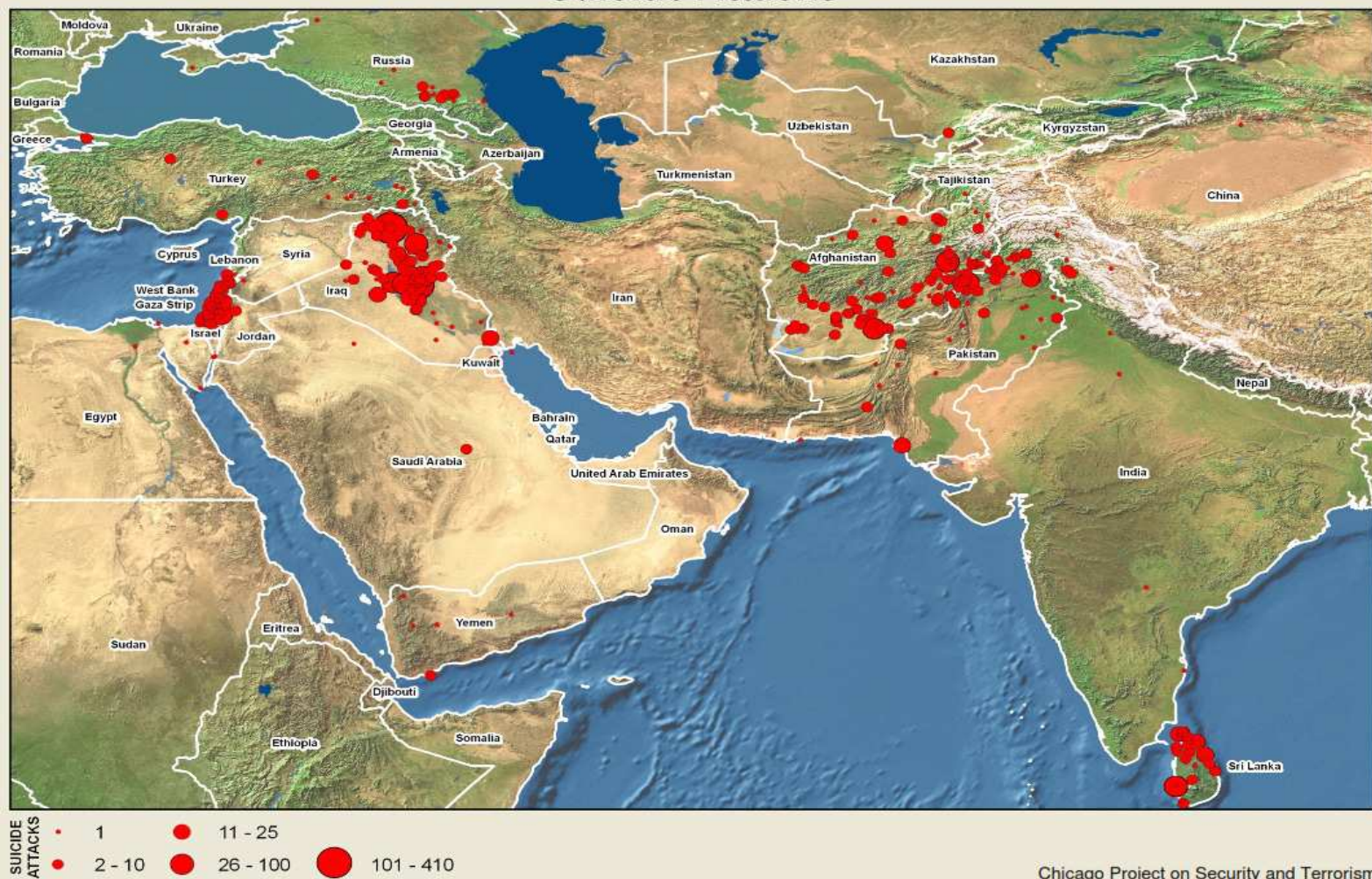


CHICAGO PROJECT ON SECURITY AND TERRORISM (CPOST)  
Social science advancing the understanding of international security and terrorism

Source: <http://cpost.uchicago.edu/search.php>

Suicide bombings 1989-2009:

## Suicide Attacks



Chicago Project on Security and Terrorism

## Beyond Bin Laden: Future Trends in Terrorism

By Carl Ungerer (Australian Strategic Policy Institute)

Source: <http://www.humansecuritygateway.com/showRecord.php?RecordId=36699>

This ASPI Strategy paper argues that with or without al-Qaeda as a coherent organisation at the vanguard of the global Islamist movement, religiously motivated terrorism is set to continue for many decades to come. Despite the obvious splintering and factionalisation within al-Qaeda and between al-Qaeda and its various franchises and affiliates, there's no

evidence that 'al-Qaedaism' as a motivating ideology is going to dissolve any time soon.

The paper is divided into six chapters. Chapter 2 examines the ideological foundations of the current fourth wave of global terrorism. Chapter 3 looks at how that ideology has been operationalised, and the emerging debate between



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those who continue to advocate a structured, ‘organisational’ jihad and the new generation who see individuals, ‘freelancers’ or small groups as the more appropriate framework for conducting global terrorism. These various strands of modern jihadism (decentralisation, localisation and individualisation) shouldn’t be viewed as contradictory—and al-Qaeda, through prominent individuals such the now-deceased American-born preacher Anwar al-Awlaki in Yemen, has advocated multiple strategies to attack the West. Chapter 4 discusses the shifting geography of terrorism, including the importance of South Asia and the rise of al-Qaeda-related groups in North Africa and the Arabian Peninsula. Chapter 5 examines the extent of recent terrorist innovation in weapons and tactics, and the

possibility that al-Qaeda will acquire and use non-conventional weapons.

Chapter 6 draws on this analysis to sketch out the elements of a more effective counterterrorism strategy for Australia in a post-bin Laden world. The centrepiece of that strategy must be a more robust and better resourced effort to confront the spread of extremist ideology, both at home and abroad. Current government efforts towards countering violent extremism are commendable, but should concentrate on those areas most at risk of radicalisation—individuals, institutions and the internet. And, instead of seeking a ‘peace dividend’ from Osama bin Laden’s death, Australia will need to work even more closely with Southeast Asian governments, particularly Indonesia, in combating the spread of Islamist extremism in our own region.

**NOTE:** Read the full paper at Newsletter’s website – “CBRNE/CT Papers” link

### Addressing the Challenge of MANPADS Proliferation

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Stimson Center

Washington, DC

February 2, 2012

Source: <http://www.state.gov/t/pm/rls/rm/183097.htm>

Thank you. It is my great pleasure to be here at the Stimson Center. Stimson has long been a leader in developing our understanding of international security and I want to thank the center for having me here today to speak on this important topic. I also want to thank Linc – not just for that kind introduction – but also for all the work he did when he ran the Political-Military Affairs Bureau. U.S. efforts to destroy and secure shoulder-fired anti-aircraft missiles started under Linc’s watch and as Special Envoy he helped focus international attention on this threat. His efforts have well prepared us for the current challenges we are facing today. Today, I want to talk to you about our efforts to address the threat posed by shoulder-fired anti-aircraft missile systems, also known as Man-Portable-Air-Defense-Systems or MANPADS. Currently in Libya we are engaged in the most extensive effort to combat the proliferation of MANPADS in U.S. history. But before I talk about Libya, let me first talk a bit about why we are so focused on this threat.

In the wrong hands, shoulder-fired anti-aircraft missiles pose a major threat to passenger air travel, the commercial aviation industry, and possibly military aircraft around the world. Not only could a successful attack against an aircraft cause a devastating loss of life, but it could also cause significant economic damage. Airline travel is critical to our interconnected global economy. Any successful attack could therefore have very harmful economic effects not only in the region where the attack occurred, but also in countries around the world.

In 2002, just over nine years ago, the world was awakened to the threat posed by MANPADS when terrorists shot two missiles at an Israeli civilian Boeing 757 in Mombasa, Kenya. If the missiles had hit the plane, the attack could have resulted in hundreds of deaths and could have had a chilling effect on international air traffic.

While we can be thankful that no American civilian planes have been shot down by one of these systems,



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the use of MANPADS in Iraq and Afghanistan by insurgents has posed a threat to American and coalition troops, as well as to reconstruction efforts. Take for example the 2003 attack on a DHL cargo plane taking off from Baghdad International Airport. As it attempted to deliver mail from Iraq to nearby Bahrain, the plane was hit by a MANPADS missile, damaging the left wing and causing the loss of the hydraulic flight control systems. Miraculously, the crew was able to regain control and make an emergency landing. These attacks gained world-wide attention and prompted the U.S. government to make countering the proliferation of MANPADS a top national security priority.

MANPADS were first developed at the beginning of the Cold War by the United States and the Soviet Union. They were designed to be used by conventional armies against enemy aircraft. But today many of the older systems have almost no military utility, since they are ineffective against modern military aircraft equipped with countermeasures. Yet a number of countries still possess large stockpiles of these outdated systems. And since they are no longer militarily useful, countries' often struggle to devote the necessary resources to properly secure them. In fact, for most countries, possession of these aging systems is often more of a liability than an asset. While these outdated weapons may be of little use to a host country's military, they are prized systems for smugglers and terrorists. This makes improperly secured stockpiles of MANPADS a prime target for smugglers and for terrorist groups like Al-Qaeda.

Just as nuclear proliferation has been a major concern in the wake of the collapse of the Soviet Union, so too is the proliferation of MANPADS. MANPADS were built to be portable, easy-to-use, and readily transferable, making them an ideal weapon for terrorists seeking to attack airliners. Some MANPADS are as small as four feet long, weighing less than 30 pounds. Yet, this light-weight weapon is capable of firing a missile at twice the speed

of sound which can engage a plane flying as high as 15,000 feet and over 3 miles away within 10 seconds. By using infrared sensors, the first generation of MANPADS could lock onto an aircraft's heat source to guide the missile to impact.

Most MANPADS require three parts to function: a missile packaged in a tube; a gripstock (also known as a launcher); and a battery. Importantly, the missile tube can only be used once. Unlike a rocket propelled grenade, it cannot be reloaded. Likewise, the battery only has enough energy to power the missile system long enough for one launch. While MANPADS are a guided system, they usually require some weapons training to be used effectively. These weapons require more than just 'pointing and clicking,' especially with the older models found in Libya that lack sophisticated guidance mechanisms. This is one of several factors that helps explain the limited number of successful attacks globally.

The most proliferated type of shoulder-fired anti-aircraft missile is also the first-generation of the system. It is an infrared-guided system



designed by the former Soviet Union known as the SA-7. This weapon was introduced in the late 1960s, was heavily produced in the 1970s, and is the system most commonly held by terrorist groups. It is also the system that the Qadhafi regime

stockpiled by the thousands. While MANPADS can vary greatly in the way they operate, they all pose a serious threat to international aviation.

Over the last decade, international awareness of the threat has grown and some important steps have been taken by the international community. For instance, regulations have been tightened on MANPADS exports. Guidelines have been established for stockpile management. And technological developments have been explored that could limit the use or the effectiveness of these weapons.

For years the United States has also worked to secure stockpiles of conventional weapons in order to prevent them from falling into the



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hands of criminals and terrorists. This remains one of the United States government's top priorities.

In 2006, the U.S. government established an interagency MANPADS Task Force led by the State Department. To counter-proliferation, the MANPADS Task Force helps countries' secure its stockpiles, maintain reliable inventories of its systems, and safely dispose of MANPADS stocks that are no longer needed for their national defense. Since 2003, our cooperation with more than 30 countries around the globe has led to the destruction of nearly 33,000 excess, loosely secured, or otherwise at-risk MANPADS.

This is also very much a multi-agency effort. The Department of Defense provides its technical expertise in providing physical security and stockpile management assessments to countries. Additionally, the Department of Homeland Security has a program within the Transportation Security Administration that assists countries to better protect their airports from a possible attack. DHS sends teams to countries to conduct vulnerability assessments in order to identify areas around international airports where MANPADS could be launched. DHS also help these countries' develop a plan to counter this threat.

The State Department, along with our interagency partners, has worked in numerous post-conflict countries, including the Balkans, Burundi, and Liberia, to secure and destroy obsolete and excess weapons, especially MANPADS. For instance, between 2003 and 2004, we worked with Bosnia to destroy its government-held stockpile of almost 6,000 MANPADS. In each of these countries, these governments realized the enormous threat that unneeded weapons posed. Not only can these weapons end up in the hands of terrorists, but poorly maintained weapons depots also pose a threat to people who live near these sites.

Additionally, our efforts in Iraq and Afghanistan required us to work in conflict environments. In both countries we worked to set up integrated Conventional Weapons Destruction programs that targeted high value weapons, specifically MANPADS. We also worked to protect the civilians from landmines, IEDs, unexploded ordnance, and excess weapons and unstable munitions. For example, in Iraq, the United States has invested more than \$200 million in conventional weapons destruction projects

since 2003. After more than three decades of violent conflict, Afghanistan is severely contaminated by landmines, unexploded ordnance, and excess conventional weapons and unstable munitions. Since the 1990s, the State Department has provided more than \$200 million in humanitarian mine action and conventional weapons destruction assistance to Afghanistan. Our work in these countries, much of it under Linc's stewardship, has helped prepare us for the challenge posed by the crisis in Libya.

### Libya

For decades, the Qadhafi regime stockpiled MANPADS. By the time of the regime's collapse, Libya had accumulated the largest stockpile of MANPADS of any non-MANPADS producing country in the world. Overall we estimate that the Qadhafi regime acquired a stockpile of approximately 20,000 MANPADS in the past four decades. The collapse of the regime has therefore created a major proliferation challenge for the new Libyan government, the region, and the entire international community.

In response to the crisis, the United States – as Secretary Clinton announced in Tripoli in November – has committed to providing \$40 million dollars to assist Libya's efforts to secure and recover its weapons stockpiles. We have also helped galvanize an international response to this crisis and have worked tirelessly in support of the new Libyan government.

We were concerned about Libya's stockpiles of MANPADS well before the outbreak of fighting last spring. In fact, during the brief earlier effort to reestablish relations with Libya, MANPADS was a topic that we sought to address with the Qadhafi regime. As the Arab Spring spread and as protests gathered momentum in Libya, our MANPADS Task Force was well aware of the scope of the challenge. With our team's experience working in other conflict countries like Iraq and Afghanistan, we also knew what to expect and we were ready to respond.

When the fighting escalated and the Qadhafi regime was pushed back from Benghazi, we took immediate steps to try to mitigate the proliferation dangers. In April of last year, we began providing \$3 million in funding to NGOs to get them on the ground. These NGOs specialize in conventional weapons destruction



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and stockpile security and have significant experience. They immediately began working with the Transitional National Council or TNC to clear unexploded ordnance and remnants of war and assisted the TNC in securing loose weapons, including MANPADS.

We also deployed a team from our MANPADS Task Force to brief countries in the region on the potential proliferation dangers. Before Qadhafi was ousted from Tripoli, we had visited all of Libya's neighbors and offered assistance with border security and provided advice on potential steps to improve aviation security.

Additionally, we worked to galvanize an international response to the crisis. We engaged our NATO allies and other close partners, and worked closely with the United Nations to develop an international response.

Once the stalemate broke and the fighting rapidly shifted in the TNC's favor in August, we immediately deployed a State Department expert from the MANPADS Task Force to Benghazi. Mark Adams, who you will hear from shortly on the panel, is the head of our MANPADS Task Force and spent considerable time on the ground in Libya and can talk more about his experience. The initial primary objective was to reach an agreement with the TNC to set up a MANPADS control and destruction program that would enable us to set up what we call our Phase I efforts. Phase I entailed an effort to rapidly survey, secure, and disable loose MANPADS across the country. To accomplish this, we immediately deployed our Quick Reaction Force, which are teams made up of civilian technical specialists.

A fact often overlooked in our response to events in Libya, is that – unlike in Iraq and Afghanistan – we did not have tens of thousands of U.S. forces on the ground, nor did we control movement and access. This meant we did not have complete freedom of movement around the country. Our efforts on the ground therefore had to be carefully coordinated and fully supported by the TNC. To keep the Libyans in the lead, our technical specialists were embedded in support of TNC-led teams to pursue loose MANPADS. While this did lend some constraints on our ability to ramp up, it also had the important benefit of ensuring that we had complete TNC support for our efforts. And I can tell you, we didn't need to explain to the TNC the importance of securing weapons. They fully understood that weapons proliferation was a real threat to a new Libya

and they worked rapidly to organize teams to secure and recover weapons.

In September, as the fighting was still going on, these teams swept the country, scouring ammunition storage sites and more than 1,500 bunkers to find MANPADS. Additionally, teams and experts were also provided by the British Government – and a British colleague who oversaw this deployment, is here today as well. Thus far these teams have helped to identify, recover, and secure approximately 5,000 MANPADS and components.

But this raises the question – how many are still missing? The frank answer is we don't know and probably never will. There are a few reasons for this:

**First, we do not have precise information about the Qadhafi regime's weapons stockpiles.** The Qadhafi regime was anything but transparent. And we don't have exact information about the regime's weapons inventories. Our teams are working to piece together information we have gained from packing slips in the MANPADS crates that can give us information on the quantities of various shipments. But there is a lot that we don't know about Qadhafi's weapons stockpile. For instance, we don't know how many systems over the last 20-40 years were used in training or military exercises or were damaged or destroyed as a result of improper storage or exposure to the elements. Therefore, getting an exact figure on the number missing is difficult because we don't know exactly how many the Qadhafi regime still possessed at the time of its collapse.

**A second reason is that weapons storage sites were a major target of NATO airstrikes.** For months, NATO forces pounded away at the Qadhafi regime's weapons depots. Time and time again our teams came across weapons storage sites where we knew MANPADS were stored only to find that these sites had been completely obliterated by NATO strikes. Whatever weapons were in these storage facilities were likely destroyed and were buried under mounds of rubble left behind. While this is good news from a counter-proliferation perspective, it makes coming up with an exact count a challenge to say the least. Additionally, the NATO bombing campaign focused intently on taking out Libya's air defense systems and their corresponding storage sites. We believe that many





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MANPADS were stored with other anti-aircraft artillery at these facilities and were likely destroyed during the campaign.

**Third, many of these weapons were taken by militias and anti-Qadhafi forces during the fighting.** The Libyan opposition – including militias and private citizens – removed significant quantities of weapons from weapons depots, including MANPADS during the uprising. As has been well documented by journalists on the ground, Libyan rebels often took whatever weapons were available. Despite the fact that MANPADS are only designed to target aircraft, have little utility against opposing ground forces, and are dangerous for the user when used this way, we know that opposition forces regularly used MANPADS in direct combat against Qadhafi loyalists. This is significant because it means that many of the unaccounted for missiles may have been used in the fighting.

Furthermore, because many militias believe MANPADS have some utility in ground combat, many militia groups remain reluctant to relinquish them. As the process of demobilizing militias continues, we expect to see many of these weapons being turned over to the control of the Libyan national army. While the integration process has been slow and challenging, at the very least, we believe this means that the large stockpiles of weapons under militia control have remained inside Libya – albeit outside the control of the Libyan government. We don't have precise numbers on how many are under militia control. But given that these were the forces that were often the first to liberate weapons sites from Qadhafi control, we believe that a substantial number are held by these militias.

Yet clearly we cannot rule out that some weapons may have leaked out of Libya. Our efforts in Libya are therefore designed to reduce risk and mitigate the threat as effectively and comprehensively as we can. This is why the United States and the international community have been working with countries in the region to improve border security and improve their aviation security. We are working closely with NATO, the EU, and the UN to coordinate our efforts on the ground and across the region. To date, the United Kingdom has pledged at least £1 million pounds and, as mentioned, has provided a team of technical experts to support and coordinate activities. The Netherlands has

contributed €900,000 Euros. Germany has contributed €750,000 Euros. And Canada has pledged \$1.6 million Canadian dollars. Other countries, such as France and Italy have also made significant contributions.

### Phase II

The work to secure and recover Libya's weapons stockpiles is a long-term effort. Now that we have completed our initial rapid sweep across the country, we are entering what we call Phase 2. This involves helping the new Libyan government conduct a full inventory of all weapons stockpiles, as well as assisting them to improve border security to help detect and interdict illicit activity.

In December I travelled to Tripoli to get an update on our progress and to discuss the transition to this new phase in our efforts with the new Libyan government. And from my visit, and from the experience of our teams on the ground, I can tell you the new Libyan government is firmly committed to addressing this issue.

In early December, the Libyan government signed a Conventional Weapons Destruction Technical Arrangement, which provides the basis for expansion into Phase 2 operations. This was the first bilateral agreement the new Libyan Ministry of Defense has signed and is a key indicator of the new Libyan governments' desire to comprehensively address weapons security. This agreement also created the Libya Center for Mine Action or LMAC, which was named as the Ministry of Defense's (MOD) lead for these issues. Our contract specialists will help support the LMAC. The LMAC is also functioning as the central point for coordination of international efforts to assist the Libyans in conventional weapons destruction.

Our conventional weapons destruction efforts are also serving to support Libya's new government. Our Phase 2 efforts will also help aid the Libyan government's efforts to integrate militias and veterans of the fighting. We plan to assist the Libyans to conduct a thorough inventory of all weapons storage areas in Libya to create a full picture of both old, unstable, obsolete, or at-risk, as well as up-to-date weapons and munitions. This is not just about MANPADS, but about all weapons. And it entails helping the Libyans consolidate weapons into secure facilities and assisting them to destroy items that the Libyans deem in

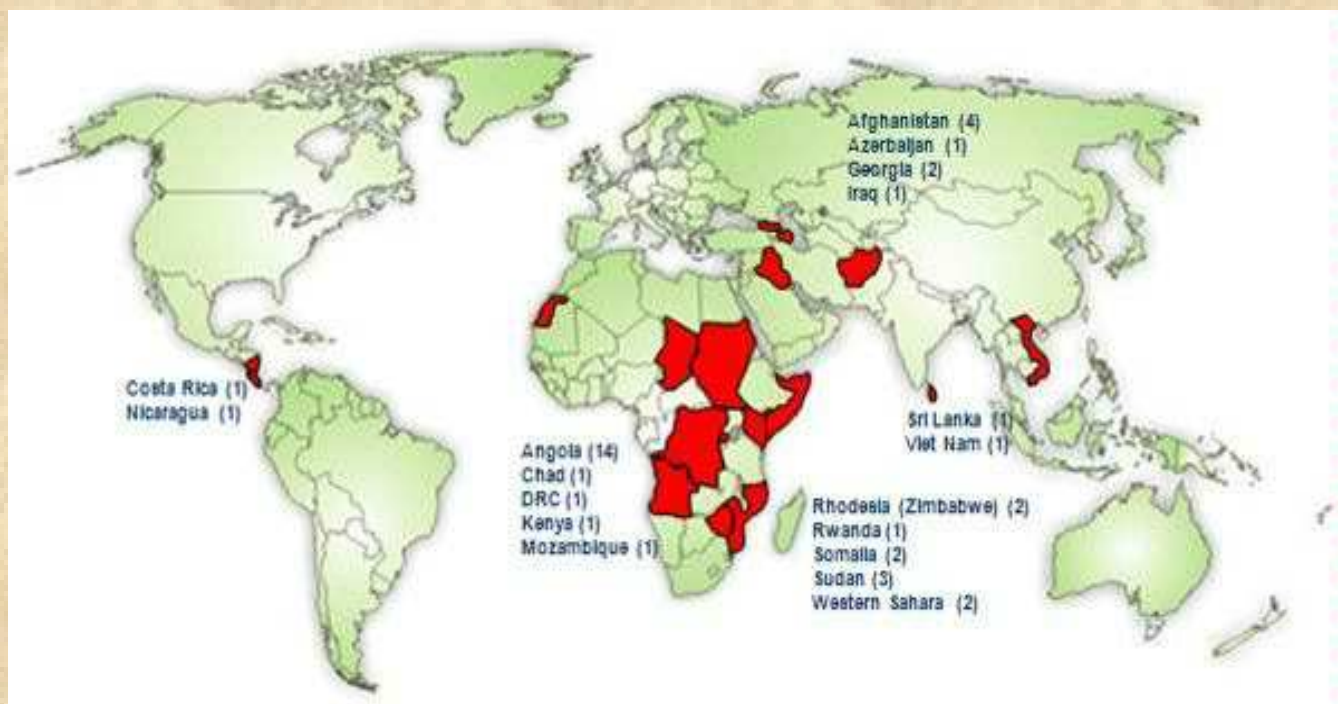


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excess of their security requirements. Throughout Phase 2, the State Department will also maintain 2 Mobile MANPADS teams which will operate independent of the survey,

security, and assisting the Libyans efforts to implement the most up-to-date stockpile management practices.

This will clearly be a long-term effort and there



inventory, and destruction activities. They will respond to any ad-hoc MANPADS discoveries or issues throughout Libya.

[MANPAD attacks against aircrafts since 1975.](#)

Completing an entire survey of Libya's weapons stockpiles, will take time and will require a lot of manpower. It entails an effort to find out exactly how many MANPADS were inside of each of the weapons sites that were targeted by NATO. This is a painstaking process that will require heavy equipment and excavation crews. Additionally, before we can even begin to excavate these sites must be swept for unexploded ordnance from the bombing campaign. To complete this task our funding will help support the hiring of many veterans of the conflict, who will be trained in conventional weapons destruction activities. We believe that this is a win-win for the government of Libya and for the United States. We are helping Libya get a handle on its weapons stockpiles, while at the same time aiding their demobilization efforts.

Once this time-consuming process is completed we plan to transition to a third Phase that will seek to ensure Libya's weapons stockpiles meet modern standards. This involves updating storage facilities, improving

is a lot of work to do between now and Phase III, but the United States and the international community are committed to assisting the new Libyan government on this path.

To conclude, I believe our efforts in Libya and around the world have demonstrated our strong commitment to addressing the threat posed by shoulder-fired anti-aircraft missiles. While there is no easy solution to the proliferation challenge posed by MANPADS, this Administration and the international community is working vigilantly to take steps to reduce the threat posed by these weapons.

I know in these budget constrained times, State Department assistance programs are under great scrutiny. But our diplomatic and development work saves lives and helps foster stability in every region of the world, which helps strengthen U.S. national security. There is no clearer example of this than our efforts to counter the proliferation of MANPADS. This work, along with our other Conventional Weapons Destruction programs, helps create the conditions for stability to return to war-torn regions. By removing or securing these destabilizing systems, as well as other deadly remnants of war, we are helping children, families, and communities to live in safety and



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therefore helping war-torn countries recover.

### When have MANPADS been used against civil aviation?

Source: <http://www.state.gov/t/pm/rls/fs/169139.htm>

Since 1975, 40 civilian aircraft have been hit by MANPADS, causing about 28 crashes and more than 800 deaths around the world. The following list is a sample of reported incidents involving civilian aircraft. All of the incidents listed below, except the November 2002 incident in Mombasa, took place in zones of conflict.



A DHL Airbus air cargo jet with left wing on fire returns to the airport in Baghdad to make a controlled landing shortly after being hit by a MANPADS fired by an Iraqi insurgent. Fortunately, there were no injuries to the crew.

*Courtesy of U.S. Department of Homeland Security*

- **March 12, 1975:** A Douglas C-54D-5-DC passenger airliner, operated by Air Vietnam, crashed into Vietnamese territory after being hit by a MANPADS. All six crew members and 20 passengers were killed in the crash.
- **September 3, 1978:** An Air Rhodesia Vickers 782D Viscount passenger airliner crash landed after being hit by a MANPADS fired by forces from the Zimbabwe Peoples Revolution Army. Four crew members and 34 of the 56 passengers were killed in the crash.
- **December 19, 1988:** Two Douglas DC-7 spray aircraft en route from Senegal to Morocco, chartered by the U.S. Agency for International Development to eradicate locusts, were struck by MANPADS fired by POLISARIO militants in the Western Sahara. One DC-7 crashed killing all 5 crew members. The other DC-7 landed safely in Morocco.
- **September 22, 1993:** A Tupolev 154B aircraft operated by Transair Georgia was shot down by Abkhazian separatist forces, crashed onto the runway and caught fire, killing 108.
- **April 6, 1994:** A Dassault Mystère-Falcon 50 executive jet carrying the Presidents of Rwanda and Burundi and its French flight crew was shot down over Kigali, killing all aboard and sparking massive ethnic violence and regional conflict.
- **October 10, 1998:** A Boeing 727-30 Lignes Aeriennes Congolaises airliner was downed over the Democratic Republic of the Congo jungle by Tutsi militia, killing 41.
- **December 26, 1998:** A United Nations-chartered Lockheed C-130 Hercules transport was shot down over Angola by UNITA forces, killing 14.
- **January 2, 1999:** A United Nations Lockheed L-100-30 Hercules transport was shot down by UNITA forces in Angola, killing 9.
- **November 28, 2002:** Terrorists fired two MANPADS at an Arkia Airlines Boeing 757-3E7 with 271 passengers and crew as it took off from Mombasa, Kenya. Both missiles missed.
- **November 22, 2003:** A DHL Airbus A300B4-203F cargo jet transporting mail in Iraq was struck and damaged by a MANPADS. Though hit in the left fuel tank, the plane was able to return to the Baghdad airport and land safely.



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- **March 23, 2007:** A Transaviaexport Ilyushin 76TD cargo plane was shot down over Mogadishu, Somalia, killing the entire crew of 11.

### Al Qaeda in Iran

Source: <http://www.foreignaffairs.com/articles/137061/seth-g-jones/al-qaeda-in-iran?page=show>

Virtually unnoticed, since late 2001, Iran has held some of al Qaeda's most senior leaders. Several of these operatives, such as Yasin al-Suri, an al Qaeda facilitator, have moved

the two have sometimes been antagonistic, as illustrated by al Qaeda in Iraq's recent attacks against Shias. But both share a hatred of the United States. U.S. policymakers should think



recruits and money from the Middle East to central al Qaeda in Pakistan. Others, such as Saif al-Adel, an Egyptian that served as head of al Qaeda's security committee, and Abu Muhammad al-Masri, one of the masterminds of the 1998 U.S. embassy bombings in East Africa, have provided strategic and operational assistance to central al Qaeda. The Iranian government has held most of them under house arrest, limited their freedom of movement, and closely monitored their activities. Yet the organization's presence in Iran means that, contrary to optimistic assessments that have become the norm in Washington, al Qaeda's demise is not imminent.

Perhaps more disturbing, Iran appears willing to expand its limited relationship with al Qaeda. Just as with its other surrogate, Hezbollah, the country could turn to al Qaeda to mount a retaliation to any U.S. or Israeli attack. To be sure, the organization is no Iranian puppet. And

twice about provoking a closer relationship between them and should draw greater public attention to Iran's limited, but still unacceptable, cooperation with al Qaeda.

*The Iran-Pakistan border. (snotch / flickr)*

Evidence of the Iranian-al Qaeda partnership abounds -- and much of it is public. This past year, I culled through hundreds of documents from the Harmony database at West Point; perused hundreds more open-source and declassified documents, such as the U.S. Department of Treasury's sanctions against al Qaeda leaders in Iran; and interviewed government officials from the United States, Europe, the Middle East, and South Asia.

Through that research, the history of al Qaeda in Iran emerges as follows: over the past several years, al Qaeda has taken a beating in Iraq, Pakistan, Yemen, the Horn of Africa, and North



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Africa. In particular, an ongoing campaign of drone strikes has weakened -- although not eliminated -- al Qaeda's leadership cadre in Pakistan. But the group's outpost in Iran has remained almost untouched for the past decade. In late 2001, as the Taliban regime collapsed, most al Qaeda operatives fled Afghanistan. Many of the leaders, including Osama bin Laden and Ayman al-Zawahiri, bin Laden's deputy and future successor, headed for Pakistan. But some did not, choosing instead to go west. And Iran was apparently more than willing to accept them. Around October 2001, the government dispatched a delegation to Afghanistan to guarantee the safe travel of operatives and their families to Iran.

Initially, Iran's Quds Force -- the division of the Revolutionary Guard Corps whose mission is to organize, train, equip, and finance foreign Islamic revolutionary movements -- took the lead. Between 2001 and 2002, it helped transport several hundred al Qaeda-linked individuals. By 2002, al Qaeda had established in Iran its "management council," a body that bin Laden reportedly tasked with providing strategic support to the organization's leaders in Pakistan. Key members of the council included Adel, Sulayman Abu Ghayth, Abu al-Khayr al-Masri, Abu Muhammad al-Masri, and Abu Hafs al-Mauritani. All five remained influential over the next several years and retained close ties to bin Laden. Among the most active of the council, Adel even helped organize groups of fighters to overthrow Hamid Karzai's regime in Afghanistan and provided support for the May 2003 terrorist attacks in Riyadh.

According to U.S. government officials involved in discussions with Iran, over time, the growing cadre of al Qaeda leaders on Iranian soil apparently triggered a debate among senior officials in Tehran. Some worried that the United States would eventually use the terrorist group's presence as a *casus belli*. Indeed, in late 2002 and early 2003, U.S. government officials held face-to-face discussions with Iranian officials demanding the regime deport al Qaeda leaders to their countries of origin. Iran refused, but around the same time, the country's Ministry of Intelligence took control of relations with the group. It set to work rounding up al Qaeda members and their families.

By early 2003, Tehran had detained all the members of the management council and their subordinates who remained in the country. It is

not entirely clear what conditions were like for al Qaeda detainees. Some apparently suffered through harsh prison confinement, while others enjoyed informal house arrest with freedom to communicate, travel, and fundraise. Over the next several years, bin Laden, Zawahiri, and other leaders apparently sent messages to Tehran threatening to retaliate if al Qaeda personnel and members of bin Laden's family were not released. Iran did not comply. Bin Laden did not follow through.

After that, the details of al Qaeda's relationship with the Iranian government are hazy. It seems that many of the operatives under house arrest petitioned for release. In 2009 and 2010, Iran did begin to free some detainees and their family members, including members of bin Laden's family. And the management council remained in Iran, still under limited house arrest. Tehran appears to have drawn several red lines for the council: Refrain from plotting terrorist attacks from Iranian soil, abstain from targeting the Iranian government, and keep a low profile. As long as it did so, the Iranian government would permit al Qaeda operatives some freedom to fundraise, communicate with al Qaeda central in Pakistan and other affiliates, and funnel foreign fighters through Iran.

Today, Iran is still an important al Qaeda hub. Suri, who was born in 1982 in al-Qamishli, Syria, is a key operative. According to U.S. Treasury Department accounts, Tehran has permitted Suri to operate discretely within Iran since at least 2005. He has collected money from donors and transferred it to al Qaeda's leadership in Pakistan and other locations; facilitated the travel of extremist recruits from the Gulf to Pakistan and Afghanistan; and according to U.S. State Department accounts, "arranges the release of al-Qaeda personnel from Iranian prisons."

On the surface, the relationship between Shia Iran and Sunni al Qaeda is puzzling. Their religious views do differ, but they share a more important common interest: countering the United States and its allies, including Israel, Saudi Arabia, and the United Kingdom. Iran's rationale might be compared to that of British Prime Minister Winston Churchill, who declared, "If Hitler invaded Hell, I would make at least a favorable reference to the devil in the House of Commons."

Iran is likely holding al Qaeda leaders on its territory first as an act of



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defense. So long as Tehran has several leaders under its control, the group will likely refrain from attacking Iran. But the strategy also has an offensive component. If the United States or Israel undertook a bombing campaign against Iran, Tehran could employ al Qaeda in a response. Tehran has long used proxies to pursue its foreign policy interests, especially Hezbollah in Lebanon, and it has a history of reaching out to Sunni groups. In Afghanistan, for example, Iran has provided limited support to the Taliban to keep the United States tied down. Al Qaeda's proven willingness and ability to strike the United States make it an attractive partner.

Al Qaeda is probably making similar calculations. To be sure, some revile the Ayatollahs. Abu Mus'ab al-Zarqawi, the now-deceased head of al Qaeda in Iraq, actively targeted Shias there. In a 2004 letter, Zarqawi explained that they are "the insurmountable obstacle, the lurking snake, the crafty and malicious scorpion." Yet, in a sign of Churchill-esque pragmatism, Zawahiri chastised Zarqawi in 2005, writing that the Shias were not the primary enemy -- at least not for the moment. It was crucial, Zawahiri explained, to understand that success hinged on support from the Muslim masses. One of Zarqawi's most significant mistakes, Zawahiri chided him, was targeting Shia communities, because such a strategy would cripple al Qaeda's support among the broader Muslim community. And most al Qaeda operatives since the debacle in Iraq have cautiously followed Zawahiri's lead.

Moreover, Iran is in many ways a safer territory from which al Qaeda can operate. The United States has targeted al Qaeda in Iraq, Pakistan, Yemen, and other countries, but it has limited operational reach in Iran. In addition, Iran borders the Persian Gulf, Iraq, Turkey, Afghanistan, and Pakistan, making it centrally located for most al Qaeda affiliates. No wonder that Suri has been able to move money and recruits through Iran to various theaters, including al Qaeda central in Pakistan. Although most governments in the region have clamped down on al Qaeda, Iran's willingness to allow some activity sets it apart.

With the management council still under limited house arrest, Iran and al Qaeda remain at arm's length. But that could change if Washington's relationship with Tehran does. So far, the conflict between Iran and the West has been limited to diplomatic pressure and

economic sanctions. It has also occasionally deteriorated into cyber attacks, sabotage, assassinations, kidnappings, and support to proxy organizations. But much like the struggle between the U.S. and Soviet Union during the Cold War, it has not spilled into overt conflict. Should an increase of those activities cause a broad deterioration in relations, however, or should the United States or Israel decide to attack Iranian nuclear facilities, Iran and al Qaeda could come closer together.

For one, Iran would likely respond to an attack by targeting the United States and its allies through proxies in Iraq, Afghanistan, and other countries. The regime might increase its logistical support to al Qaeda by providing money, weapons, housing, travel documents, and transit to operatives -- some of which it is already doing. In a worse scenario, Tehran might even allow al Qaeda officials in Iran to go to Pakistan to replenish the group's depleted leadership there, or else open its borders to additional al Qaeda higher-ups. Several of the operatives already in Iran, including Adel and Abu Hafs al-Mauritani, would be especially valuable in this regard, because of their prestige, experience in paramilitary and external operations, and religious credentials. In an even more extreme scenario, Iran could support an al Qaeda attack against the United States or one of its allies, although the regime would surely attempt to hide its role in any plotting. Based on Iran's cautious approach over the past decade, Tehran's most likely strategy would be to gradually increase its support to al Qaeda in response to U.S. actions. That way it could go slowly, and back away at any time, rather than choosing an all-or-nothing approach from the start.

It would be unwise to overestimate the leverage Tehran has over al Qaeda's leadership. The terrorist organization would almost certainly refuse Iranian direction. But given the group's current challenges, any support or tentative permission to plot on Iran's soil would be helpful. It could set about restoring its depleted senior ranks in Pakistan and other countries, or else rebuild within Iran itself. The organization might thus be amenable to working within Iranian constraints, such as seeking permission before planning attacks in the West from Iranian soil, as long as the taps were flowing.

It is true that the United States has limited leverage with Iran, but it still



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has several options. The first, and perhaps easiest, is to better expose the existence and activities of al Qaeda leaders in Iran. Al Qaeda has killed tens of thousands of Sunnis, Shias, and non-Muslims over the past two decades and has unified virtually all governments in the world against it. Iran, too, has become an international pariah. Its limited aid to al Qaeda is worthy of further public condemnation. But Iran has largely escaped such scrutiny.

The United States could encourage more countries to prohibit citizens and companies from engaging in commercial and financial transactions with al Qaeda leaders and their networks in Iran. The U.S. Treasury and State Departments have taken steps against some al Qaeda operatives and their supporters in Iran,

including against Suri and his circle. But those efforts have not been coupled with robust diplomatic efforts to encourage other countries to do the same. Nor have they been successful in eliminating al Qaeda's sanctuary in Iran.

Finally, the United States should think twice about actions that would push Iran and al Qaeda closer together -- especially a preemptive attack on the country's nuclear program. Thus far, Iran and al Qaeda have mutually limited their relationship. It would be a travesty to push the two closer together at the very moment that central al Qaeda in Pakistan has been severely weakened.

Thankfully, there is still time to deal with the problem. But the stakes are too high for the United States to remain quiet any longer.

### How the MI5 watchers trapped the home-grown terrorists

Source: <http://www.telegraph.co.uk/news/uknews/terrorism-in-the-uk/9055705/How-the-MI5-watchers-trapped-the-home-grown-terrorists.html>



(Clockwise from top left) Mohammed Chowdhury, Shah Rahman, Gurukanth Desai and Abdul Miah

Four young men from London and Cardiff planned bomb attacks on targets including the London Stock Exchange, Parliament, the US embassy and the Mayor of London.

Three other men from Stoke were planning a further wave of attacks once they had travelled abroad for more training. Two other men were also linked to the plots.

Yesterday all nine men, of Pakistani and Bangladeshi origin, pleaded guilty to a series of terrorist-related offences at Woolwich Crown Court.



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It followed months of surveillance by MI5 officers, who had watched the men develop from fringe radicals into terrorists who posed a grave threat to national security.

### Do You Live Near a Terrorism ‘Hot Spot’ According to This Map?

Source: <http://www.theblaze.com/stories/do-you-live-near-a-terrorism-hot-spot-according-to-this-map/>

Researchers, as part of the National Consortium for the Study of Terrorism and Responses to Terrorism (START) under the Department of Homeland Security, are trying to come up with a way to better predict where and when terrorist attacks would happen on U.S. soil.

To start, the researchers from the University of Maryland and University of Massachusetts-Boston mapped all events considered terrorism since 1970 to 2008 in the United States (below). This established areas they deemed terrorism “hot spots” but also revealed that terrorism is actually “widely dispersed”. So widely dispersed that every state has experienced some act of terrorism in some form, according to the report. The report defines a hot spot as an area where more than the average number of terrorist attacks have

#### Geographic Concentration of Terrorist Attacks in the U.S., 1970 – 2008 (Image: START)

The research found that a third of all terrorist attacks during that time-frame studied took place in five metropolitan cities — Manhattan, New York (343 attacks); Los Angeles County, Calif. (156 attacks); Miami-Dade County, Fla. (103 attacks); San Francisco County, Calif. (99 attacks); and Washington, D.C. (79 attacks).

“Mainly, terror attacks have been a problem in the bigger cities, but rural areas are not exempt,” Gary LaFree, director of START and lead author of the new report, said in the University of Maryland press release.

“The main attacks driving Maricopa into recent hot spot status are the actions of radical environmental groups, especially the Coalition to Save the Preserves. So, despite the



taken place — the average for the U.S. is six.

clustering of attacks in certain regions, it is also clear that hot spots





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are dispersed throughout the country and include places as geographically diverse as counties in Arizona, Massachusetts, Nebraska and Texas,” LaFree added.

The Huffington Post points out that there is a correlation between the type of attack that took place and location: The research showed a strong association between the county in which



Geographic Concentration of Fatal Terrorist Attacks in the U.S., 1970 - 2008 (Image: SMART)

In addition to tracking areas prone to terrorist attacks, the study authors saw trends in timing of terrorist attacks and type of motivation behind the attack. For example, co-author Bianca Bersani, assistant professor of sociology at the University of Massachusetts-Boston, said that terrorist attacks they classified as extreme left-wing — “groups that want to bring about change through violent revolution rather than through established political processes” — were limited almost exclusively to the 1970s. Whereas in the 1980s terrorism with religious motivations took place and the 1990s had extreme right-wing attacks by “groups that believe that one’s personal and/or national “way of life” is under attack and is either already lost or that the threat is imminent”.

a terrorist attack occurred and its motivation. “For example,” a University of Maryland statement notes, “Lubbock County, Texas, only experienced extreme right-wing terrorism while the Bronx, New York, only experienced extreme left-wing terrorism.”

Overall, the report found that terrorist attacks in the United States are at lower levels than other times in its history, even though the threat of terrorism has more public attention now — usually in the form of terrorism against the country by religious extremists. The research also found that “foiled plots” for potential terrorist attacks increased during this time.

Ultimately, with more research, the group hopes to gain understanding about the link between what is considered terrorism and ordinary crime in order to better predict when and where terrorist events could happen. Next, the research will be looking into language diversity and its relationship with terrorist attacks and ordinary crime.

## Amsterdam Airport Schiphol Selects RescueSim Virtual Reality Technology to Prepare for Airport Incidents

Source: <http://www.fireengineering.com/articles/2012/02/amsterdam-airport-schiphol-selects-rescuesim-virtual-reality-technology-to-prepare-for-airport-incidents.html>

Amsterdam Airport Schiphol has selected the RescueSim Virtual Emergency Response Platform to prepare its

emergency services and safety personnel for airport incidents. With almost 50 million passengers



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and over 420,000 aircraft movements in 2011, Amsterdam Airport Schiphol is one of

the busiest airports in the world and a leading air traffic hub in Europe. Safety has the highest priority at Amsterdam Airport

Schiphol and is watched over by a dedicated fire brigade of over 140 persons. Amsterdam Airport Schiphol operates one of the most advanced airport firefighting training centres in the world. The combination of state-of-the-art emergency response equipment and well prepared emergency response crews, ranks Schiphol amongst the world's best prepared airports.

After a formal tender process in which different suppliers of virtual incident management software were thoroughly evaluated and tested, Schiphol selected RescueSim as its virtual emergency response training tool. RescueSim will

provide the airport's emergency services with a state-of-the-art training tool allowing crews to simulate a wide range of airport incidents and practice their response strategies for these incidents in a cost effective and safe way.

VSTEP, Europe's leading developer of simulators and virtual training software, is working closely with the Schiphol Fire Brigade to customize its RescueSim training platform to include a full virtual 3D model of Amsterdam Airport Schiphol and the surrounding area and relevant incident scenarios. The fire brigade will have at their disposal all relevant aircraft types, emergency services vehicles and equipment as well as general airport

equipment, guaranteeing realistic incident simulation.



Cristijn Sarvaas, VSTEP CEO: "We are extremely proud that Schiphol has chosen RescueSim as their virtual training platform. Airports are an important customer group for RescueSim virtual training and Schiphol is one of the finest reference customers in the world. The Schiphol Fire Brigade and VSTEP are working closely to further enhance RescueSim and meet the rigorous demands of the airport sector. With Amsterdam Airport Schiphol, Dutch Railways, Port of Rotterdam and leading Fire & Rescue Safety Regions using RescueSim, it has become the training tool of choice for Holland's emergency services."

Tom van Maastrigt, Project Executive and Manager Preparation & Safety Training, Schiphol Group : "Training is an essential and

ongoing business for emergency response teams. Virtual training will be an important part of the training programme for Incident Commanders and crews. We expect a long lasting partnership with VSTEP to ensure that not only our fire brigade will benefit, but all parties involved in the emergency organisation at Amsterdam Airport Schiphol as well."

RescueSim is the leading virtual emergency response training software available today. It helps emergency response teams prepare for any thinkable incident by letting them train in a realistic virtual environment, without the dangers, costs and time associated with traditional practical training. RescueSim offers



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specialised modules for Fire & Rescue services, as well as Airport, Industrial,

Offshore, Port and Highway Incident Management.

### ABOUT VSTEP

VSTEP is a leading International developer of simulators and virtual training software. VSTEP creates 3D virtual training software and simulators that allow safety and security professionals to build their skills in a practical, safe and cost effective way. RescueSim is used in a single and multi agency training environments to simulate real-life incidents and allow people to experience incidents and practice alternative response strategies in a realistic virtual 3D environment.

For more information, go to [www.vstepsimulation.com](http://www.vstepsimulation.com)



### About RescueSim

RescueSim Emergency Response Training is single and multi agency training software that prepares



safety and security professionals for real-life incidents and allows them to experience and train



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incidents in a safe virtual 3D environment. RescueSim includes specialised modules for Fire & Rescue services, as well as Industrial, Port, Airport, Underground and Offshore Incident Management. For more information, go to [www.rescuesim.com](http://www.rescuesim.com)

### What Really Motivates The Islamists?

Source: [http://www.huffingtonpost.com/kemal-argon/what-really-motivates-the-islamists\\_b\\_1242886.html](http://www.huffingtonpost.com/kemal-argon/what-really-motivates-the-islamists_b_1242886.html)

In talking about motivations of Islamists, it is probably most accurate to say that there is no one motivation for all Islamists and motivations in the real world can be expected to be mixed and varied. It is easy to talk about geopolitical trends and suggest that Islamism is impacted by postcolonial trends: it is often reacting to the legacies of colonialism. In the extreme example of the minority of violent terrorists, we are most often talking about radicalized individuals with a twisted psychology and motivations. This psychology of radicalized terrorists and suicide bombers is different from the majority of Islamists. There are numerous references that can be made but, for an analysis of suicide bombers, see "Psycho-Political Aspects of Suicide Warriors and Terrorism and Martyrdom: A Critical View from 'Both Sides' with Respect to Cause and Cure." The good news is that such people are only a minority.

In contrast to the dark motivations of terrorists, I will say that there most probably is a much overlooked and most important common aspect for the vast majority of Islamists as well as for the other adherents of all the Abrahamic religions. This is their deeper motivation of love. Love of God, of His Word, of His Prophet's example and the sacred generally motivates the Islamists. Muslims see the Qur'an and the legacy of the Prophet Muhammad rather analogously to the way that many Christians and Jews contemplate the Ten Commandments. It is not difficult to find an opinion that the Ten Commandments are sacred as a covenant and law given by God and each and every one of them protects our humanity. I would argue that whether or not individual Muslims realize that loving God and His Prophet and following the Qur'an and Sunnah protects our humanity depends on their level of knowledge and awareness. When asked directly, the majority will admit that they should.

My academic research in Pakistan brought me into contact with different contemporary nonviolent Islamists, conservative and liberal

and those in between. I met published Islamic scholars as well as senators, politicians, think-tank experts and academics. Upon interviewing them and examining their writings, it is accurate to say that they all appeared to have this deeper common aspect of love as a motivation, even if they rarely discussed it in depth.

It should be noted that the mega-trend of expanded involvement of religion in politics is happening all over the world and is not only seen amongst Muslims. Scholars who study Judaism and the contemporary Jewish community know that there is tremendous love within Judaism. It is love that motivates the construction of a synagogue and sustains its activities. Scholars who study Christianity and the contemporary Christian world know that there is tremendous emphasis on love within Christianity. It is also love that motivates the construction of a church and that sustains its activities. My studies of Islam and Islamism have brought me to realize that classical and contemporary Islam also have tremendous love within. As with Judaism and Christianity, it is this love that motivates the construction of a mosque and that sustains its activities. In their statements and writings, it can be seen that it is love that motivates this greater majority of the Islamists; love for God, love for the Sacred, His Word and His Prophet, and also love for humanity.

Complicating matters is that the Islamists generally can be described to have taken the perspective not only that respect for the sacred protects our humanity but also that this respect should be taken into politics. Appreciating how centrally important respect for the sacred is in Islam generally explains some of the motivation of contemporary Islamists. At the individual level, it is probably more love and less ideology that is a major motivation. This is the level at which any meaningful communication with these people also must take place. Interreligious dialogue with Islamists, if it is going to be



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successful, must engage the Islamists in an intellectually and spiritually savvy way, discussing love's work. This discussion of love's work must include the topics that relate to our common concern for the protection of humanity. It is only fair for me to warn the reader that this will seldom be as easy as it sounds.

Of course plenty of people within the Muslim fold and without it see Islamism as a failure and a number of issues are certain to arise in discussion about religion and politics. Muslim calls for establishing Islamic governments and even reestablishing a caliphate should be encountered seriously with any and all necessary critiques thereof. I would argue that the call for a one-man caliphate is simply not practicable in the modern world. In contrast, it can be noted that Mawdudi's notable ideological successor, Dr. Khurshid Ahmad, advocates a consultative Islamic caliphate of many Muslims. Muhammad Iqbal, the poet par

excellence of Pakistan, advocated consultation in representative assembly. Again, the question of how Muslims relate to pluralism/other religions is critical here and how Muslims relate to religious pluralism will need to be raised in this discussion. A demand for humane encounter with pluralism needs to be made with everyone in the encounter, of Muslims and of non-Muslims.

It is a perennial reality that we need more reconciliation and mutual acceptance all around. Discussing this common motivation of love could also bring motivation in this direction of mutual acceptance. Although it may all sound rather naïve, it is nonetheless fundamentally true for the vast majority: this deeper motivation of love is the major common motivation amongst all motivations. Love is therefore a common ground and hope for meaningful discussion if we can properly locate it in the interfaith discussion.

### Terrorists focus on five U.S. urban counties, but rural areas not exempt

Source:<http://www.homelandsecuritynewswire.com/dr20120201-terrorists-focus-on-five-u-s-urban-counties-but-rural-areas-not-exempt>

Nearly a third of all terrorist attacks from 1970 to 2008 occurred in just five metropolitan U.S. counties, but events continue to occur in rural areas, spurred on by domestic actors, according to a report published the other day by researchers in the National Consortium for the Study of Terrorism and Responses to Terrorism (START), a DHS Science and Technology Directorate (S&T) Center of Excellence based at the University of Maryland.

The research was conducted at Maryland and the University of Massachusetts-Boston.

#### The largest number of events clustered around major cities:

- **Manhattan, New York (343 attacks)**
- **Los Angeles County, Calif. (156 attacks)**
- **Miami-Dade County, Fla. (103 attacks)**
- **San Francisco County, Calif. (99 attacks)**
- **Washington, D.C. (79 attacks).**

A University of Maryland release reports that while large, urban counties such as Manhattan and Los Angeles have remained hot spots of terrorist activities across decades, the START researchers discovered that smaller, more rural counties such as Maricopa County, Arizona — which includes Phoenix — have emerged as hot spots in recent years as domestic terrorism there has increased.

The START researchers found that sixty-five of the U.S. 3,143 counties were “hot spots” of terrorism. The researchers defined a “hot spot” as a county experiencing a greater than the average number of terrorist attacks, that is, more than six attacks across the entire time period (1970 to 2008).

“Mainly, terror attacks have been a problem in the bigger cities, but rural areas are not exempt,” said Gary LaFree, director of START and lead author of the new report.

“The main attacks driving Maricopa into recent hot spot status are the actions of radical environmental groups, especially the Coalition to Save the Preserves. So, despite the clustering of attacks in certain regions, it is also clear that hot



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spots are dispersed throughout the country and include places as geographically diverse as counties in Arizona, Massachusetts, Nebraska and Texas,” LaFree added.

### Types of attack

LaFree, a professor of criminology at the University of Maryland, and his co-author Bianca Bersani, assistant professor of sociology at the University of Massachusetts-Boston, also assessed whether certain counties were more prone to a particular type of terrorist attack.

They found that while a few counties experienced multiple types of terrorist attacks, for most attacks were motivated by a single ideological type. For example, Lubbock County, Texas, only experienced extreme right-wing terrorism while the Bronx, New York, only experienced extreme left-wing terrorism.

### Time trends

LaFree and Bersani also found time trends in terrorist attacks. “The 1970s were dominated by extreme left-wing terrorist attacks,” Bersani said. “Far left-wing terrorism in the U.S. is almost entirely limited to the 1970s with few events in the 1980s and virtually no events after that.”

Ethno-national/separatist terrorism was concentrated in the 1970s and 1980s, religiously motivated attacks occurred predominantly in the 1980s, extreme right-wing terrorism was concentrated in the 1990s, and single issue attacks were dispersed across the 1980s, 1990s, and 2000s, according to the new report.

To define the ideological motivations, LaFree and Bersani used START’s *Profiles of Perpetrators of Terrorism — United States* (Miller, Kathleen Smarick, and Simone, 2011), which briefly describes ideological motivations as:

*Extreme right-wing:* groups that believe that one’s personal or national “way of life” is under attack and is either already lost or that the threat is imminent (for some the threat is from a

specific ethnic, racial, or religious group), and believe in the need to be prepared for an attack either by participating in paramilitary preparations and training or survivalism. Groups may also be fiercely nationalistic (as opposed to universal and international in orientation), anti-global, suspicious of centralized federal authority, reverent of individual liberty, and believe in conspiracy theories that involve grave threat to national sovereignty or personal liberty.

*Extreme left-wing:* groups that want to bring about change through violent revolution rather than through established political processes. This category also includes secular left-wing groups that rely heavily on terrorism to overthrow the capitalist system and either establish “a dictatorship of the proletariat” (Marxist-Leninists) or, much more rarely, a decentralized, non-hierarchical political system (anarchists).

*Religious:* groups that seek to smite the purported enemies of God and other evildoers, impose strict religious tenets or laws on society (fundamentalists), forcibly insert religion into the political sphere (for example, those who seek to politicize religion, such as Christian Reconstructionists and Islamists), or bring about Armageddon. For example, Jewish Direct Action, Mormon extremist, Jamaat-al-Fuqra, and Covenant, Sword and the Arm of the Lord (CSA) are included in this category.

*Ethno-nationalist/separatist:* regionally concentrated groups with a history of organized political autonomy with their own state, traditional ruler, or regional government, which are committed to gaining or regaining political independence through any means and who have supported political movements for autonomy at some time since 1945.

*Single issue:* groups or individuals that obsessively focus on very specific or narrowly-defined causes (for example, anti-abortion, anti-Catholic, anti-nuclear, anti-Castro). This category includes groups from all sides of the political spectrum.

**NOTE:** You can download full report from Newsletter’s website – “CBRNE/CT Papers” link

## Terror group 'planned for future'



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Source: <http://www.google.com/hostednews/ukpress/article/ALeqM5jwYK5XyHOteVjXB2bJNBS9OuCc0Q?docId=B31126871328537503A00000>

A group of UK-based radical Islamists decided against carrying out suicide attacks in London so they would have a "long-term future" in committing acts of terrorism, a court has heard.

Within weeks of joining together, the al Qaida-inspired extremists plotted to bomb the London Stock Exchange and to organise for Britons to undergo terrorist training in Pakistan, London's Woolwich Crown Court was told.

Between them, the nine men possessed "almost every famous jihadi publication", including copies of an English-language online al Qaida magazine called Inspire, the prosecution said.

Inspire's first issue featured an article on how to "Make a bomb in the kitchen of your mom", complete with pictures and step-by-step instructions.

An expert concluded this would enable someone within a few hours to produce a "viable" device capable of killing or maiming people, the court heard.

**Another issue included a feature on how to build the "ultimate mowing machine" by welding blades to a 4x4 car and driving it into pedestrians.**

The author said such a vehicle could be used on a terrorist mission in Britain,

noting: "In such countries, we may strike at



the public at large."

The nine men - Mohammed Chowdhury, 21, and Shah Rahman, 28, both from London; Gurukanth Desai, 30, Abdul Miah, 25, and Omar Latif, 28, all from Cardiff; and Usman Khan, 20, Mohammed Shahjahan 27, Nazam Hussain, 26, and Mohibur Rahman, 27, all from Stoke-on-Trent - pleaded guilty last week to a variety of terrorist offences.

Prosecutor Andrew Edis QC, opening the Crown's case at the start of a three-day sentencing hearing, said: "These defendants had in overview decided that ultimately they would be responsible for very serious acts of terrorism."

### 'Lone wolf' terror threat warning

Source: <http://www.bbc.co.uk/news/uk-16920643>

The UK could face a growing threat from "lone wolf" terrorists returning from fighting overseas in the next few years, a think tank has warned.

The Royal United Services Institute estimates about 50 Britons are fighting with Somali extremists al-Shabab.

Returnees from "wars in Somalia, Yemen or Nigeria" could use their experience on UK streets, Rusi said.

The Home Office said its security arrangements would reflect "the nature of the terrorist threat we face".

It is also feared that the return of Britons from overseas could coincide with the release of people convicted of terrorist charges over the last decade.

BBC security correspondent Frank Gardner says the think tank is warning of "a perfect storm of combined threats coming together in the near future".

The UK terror threat level was reduced from "severe" to "substantial" in July last year, but Rusi warned that



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the threat from jihadist terrorism had not diminished.

Despite recent arrests and failed plots, "lone wolves" and "self-radicalised" jihadi terrorists were hard to track down and posed a greater security risk, its report said.

### 'Help and hindrance'

Rusi analyst Valentina Soria said: "There is very little which could justify complacency in the way we perceive the future threat from jihadist terrorism to the UK.

"Although actual capabilities may have deteriorated, the intention to conduct large-scale attacks on British soil remains."

The report also warned that UK counter-terrorism spending and staffing levels could face significant cuts after the end of the London Olympics this summer.

The focus on averting a terrorist threat during the Games had postponed much-needed reform until afterwards.

"The Games are both a help and a hindrance to UK counter-terrorism," said Rusi senior fellow Tobias Feakin.

"A help because they have stimulated intense co-operation between the security agencies, but a hindrance because the shadow of the Olympics disguises the landscape for the years beyond.

"As budgetary restrictions are increasingly applied across the public sector, it is almost certain that the security agencies will also have to tighten their belts."

He added: "There is a sense in Whitehall that major decisions are being postponed until the event has ended in August, with an overriding priority to complete the Games without major incident.

"After this, the changes for the various security organisations involved will be inevitable."

*"There is a sense in Whitehall that major decisions are being postponed until the [Olympics have] ended in August, with an overriding priority to complete the Games without major incident"*

**Tobias Feakin Royal United Services Institute**

### Long-term strategy

On Monday, a report by the Home Affairs



Committee of MPs warned the government not to neglect the threat to the UK from extreme far-right terrorism.

The report said the government's strategy to combat radicalisation "only pays lip service to the threat from extreme far-right terrorism".

The committee cited the growth of far-right groups with links to similar

organisations in Europe.

A Home Office spokeswoman said: "National security is the first duty of any government.

"The UK's counter-terrorism strategy (Contest) sets out our long-term plans to deal with the threat from terrorism. It covers the build-up to the Olympics and the following three years.

"Over that same period we are allocating £2bn a year to the security and intelligence agencies budget.

"The [Contest] strategy is designed to be flexible and we will continue to ensure that the UK's response reflects the nature of the terrorist threat we face."

## Al-Qaeda bid for Brit girl bombers

By Graeme Wilson (Deputy Political Editor)

Source: <http://www.thesun.co.uk/sol/homepage/news/politics/4110182/Al-Qaeda-bid-for-Brit-girl-bombers.html>





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AL-QAEDA is trying to recruit WOMEN to carry out suicide bombings in the UK, MPs warn today. It is using extremist websites to radicalise the angels of death, says their chilling report.

The Commons home affairs committee says it has heard evidence the terror group is "specifically launching and targeting women for violent acts".

It is already a deadly tactic in the Middle East, where growing numbers of Palestinian women are volunteering for suicide missions against Israel. The MPs' report comes days after four Islamic extremists admitted plotting to bomb the London Stock Exchange.

Woolwich Crown Court heard how the gang — who also had London mayor Boris Johnson on a hit list — had been brainwashed by the twisted ideology of Anwar al-Awlaki, an al-Qaeda leader until the US killed him in Yemen last year.

His attempts to recruit UK Muslims were exposed by The Sun. Last night the committee chairman, Labour's Keith Vaz, said the gang's admissions show "we cannot let our vigilance slip".

He added: "More resources need to be directed to these threats and to preventing radicalisation through the internet and in private spaces.

"These are the fertile breeding grounds for terrorism."

The MPs' report says big internet firms must do more to shut websites that encourage violent extremism.

Home Secretary Theresa May has already launched a crackdown on recruiting websites used by extremists, as a purge on fanatics in mosques and colleges has resulted in the web being increasingly used to brainwash supporters.

For their report, the Association of Chief Police Officers' Sir Norman Bettison told MPs the internet "seems to feature in most, if not all, of the routes of radicalisation".

MPs grilled hate preacher Abu Hamza inside Belmarsh Prison for their inquiry.

The report says he blames British foreign policy and guilt for radicalising Muslims.

The Home Office said last night: "We are working closely with the police and internet service providers to take hate off the web."

## Homegrown terrorism down for second year in a row

Source: <http://yubanet.com/usa/Study-Homegrown-Muslim-American-terrorism-minuscule-threat-to-public-safety.php#.TzLGXYHAGnA>

A new study released today (Feb. 8) by the Triangle Center on Terrorism and Homeland Security documents that concerns of counterterrorism officials about a potential wave of homegrown violent extremism have not materialized over the past two years. The study, "Muslim-American Terrorism in the Decade Since 9/11," reports that 20 Muslim-Americans committed or were arrested for terrorist crimes in 2011, down from 26 in 2010 and 49 in 2009. Since 9/11, 193 Muslim-Americans have been arrested or convicted of violent terrorism



offenses, making 2011 about an average year for such offenses.

"Muslim-American terrorism continued to be a miniscule threat to public safety last year. None of America's 14,000 murders in 2011 were due to Islamic extremism," said Charles Kurzman, author of the study and professor of sociology in the College of Arts and Sciences at UNC. "The challenge is for Americans to be vigilant about potential violence while keeping these threats in perspective."

"Those who predicted an inevitable, rapid increase of

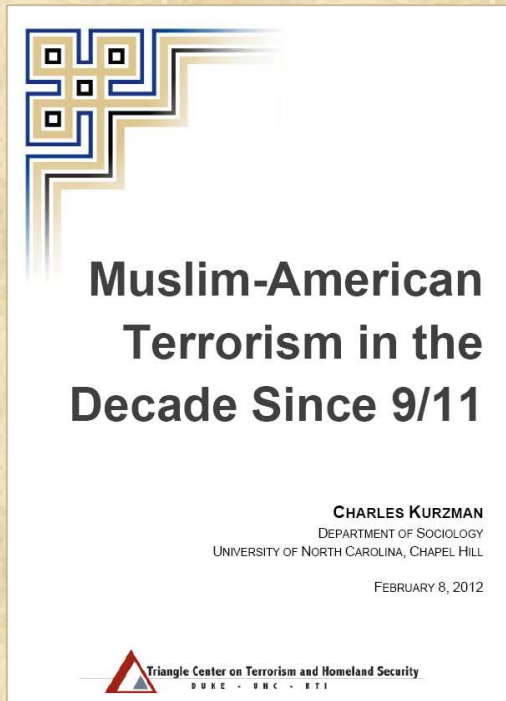
homegrown violent extremism among Muslim-Americans were wrong," said David Schanzer, director of the center and professor of public policy at Duke.

"While homegrown radicalization is



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still a problem, the offenders from 2011 were less skilled and less connected with international terrorist organizations than the offenders in the prior two years. Hopefully, the seriousness of this threat will continue to decline in the future."



The study also reported that 462 Muslim-Americans have been arrested for nonviolent support of terrorism since 9/11. The number of offenders has declined dramatically since 9/11, with 343 offenders in the first five years after 9/11 and 119 since then. Eight Muslim-Americans were charged with nonviolent support for terrorism in 2011, down from 27 in 2010.

The amount of funds at issue in these cases also declined over time. The four cases in 2011 all involved less than \$100,000. Thirteen of 23 cases since 2008 also involved less than \$100,000. Before 2008, 24 out of 34 of the cases involved more than \$100,000, and 11 cases involved more than \$1 million.

The study also reported that:

- Of the 20 offenders in 2011, only one was accused of executing a terrorist attack, down from six attacks in 2010 (including the

Times Square attempted bombing and five individuals who joined militants in Somalia and Yemen).

- The 20 offenders from 2011 do not match any ethnic or racial "profile." They are 30 percent Arab, 25 percent white, and 15 percent African-American. This diversity is consistent with prior years.
- 40 percent of the offenders in 2011 were converts compared to 35 percent of all offenders since 9/11.
- Only two of the 20 offenders received terrorism training abroad, compared to eight in 2010 and 28 in 2009.
- Muslim-Americans continued to be a source of initial tips alerting law-enforcement authorities to violent terrorist plots. Muslim-Americans turned in two of 14 individuals in 2011 whose initial tip could be identified, bringing the total to 52 of 140 since 9/11.
- 4 out of 20 of the perpetrators in 2011 had military experience. This was a much higher percentage than the group of all offenders since 9/11 (15 out of 193).
- None of the 2011 perpetrators were Somali-Americans, compared to three in 2010 and 18 in 2009.

The Triangle Center on Terrorism and Homeland Security (TCTHS) is a collaborative effort between Duke University, the University of North Carolina at Chapel Hill and RTI International to enhance the understanding of terrorism and the means to combat it through education, research and the development of partnerships between universities, industry and government. Founded in 2005, TCTHS provides a forum for the exchange of views, information, and expertise between a broad cross section of the Triangle community -- students, faculty, researchers, government officials, first responders, and interested members of the public. In pursuing these goals, the Triangle Center draws on the wide array of scholars, researchers, and experts from the three sponsor institutions who are engaged in work ranging from basic research to the execution of government funded projects.

**NOTE:** You can download full paper from Newsletter's website – "CBRNE/CT Papers" link



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### The economic cost of Somali piracy – 2011

Source: <http://oceansbeyondpiracy.org/>

This report is One Earth Future Foundation's (OEF) second assessment of the Economic Cost of Piracy.

It estimates that Somali piracy cost between \$6.6 and \$6.9 billion in 2011. Our previous report on the Economic Cost of Piracy in 2010, estimated that piracy cost the world \$7 - \$12 billion. That initial report generated a significant amount of dialogue and feedback on the cost of piracy. This report is the result of extensive research conducted by OEF with the collaborative participation of multiple different stakeholders, and includes significant contributions made by commentators, experts, and others impacted by piracy. It assesses nine different direct cost factors, and is focused specifically on the economic impact of Somali piracy.

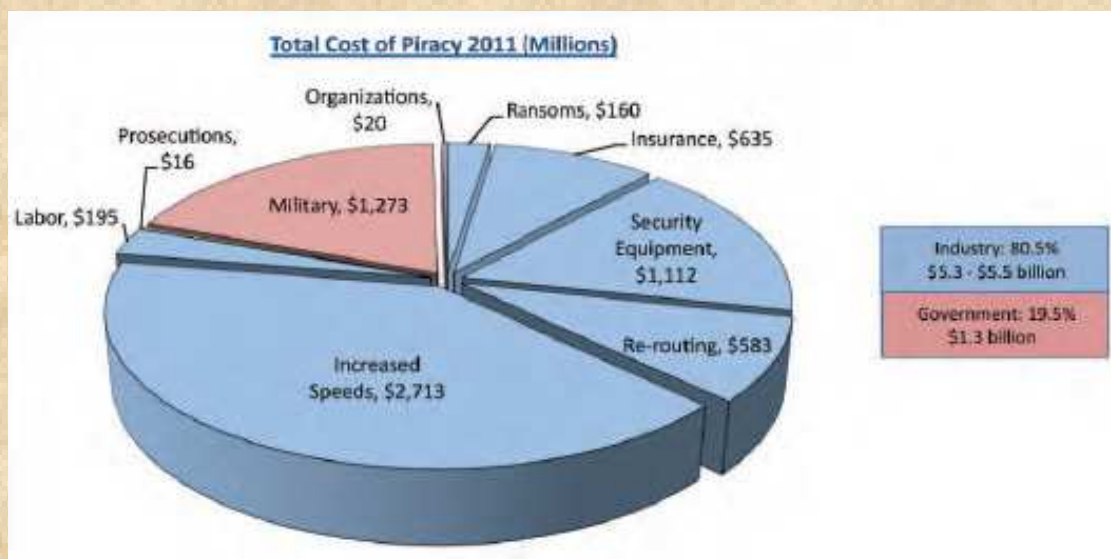
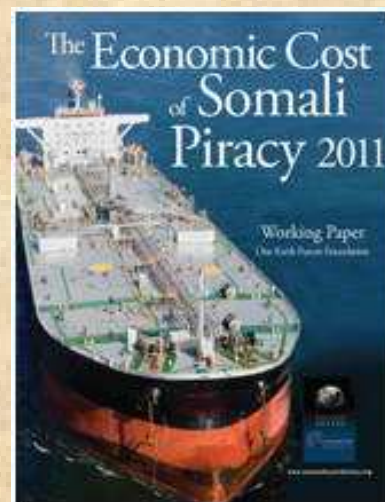
While the report assesses the cost of piracy for the year of 2011, there were significant changes and developments in piracy throughout that year, and in many ways 2011 was the 'tale of two years':

Overall, 2011 saw an increase in attacks by Somali pirates. This was driven by a rapid

the year, the anticipated resurgence of piracy following the monsoon period did not eventuate.

A number of factors may explain this pattern, including an extended period of monsoonal rough weather off the coast of Somalia, and the use of deterrence mechanisms such as private armed security. Other developing trends throughout the year included an altered re-routing model where ships transited close to the western Indian coastline (rather than around the Cape of Good Hope); and pirates' changing use of mother ships from large vessels to smaller fishing boats. Further, 2011 saw a more aggressive response from military forces conducting counter-piracy missions in the region.

The project finds that of the total costs of



escalation in the number of hostages and hijackings in the first quarter of 2011. As expected, hijackings declined during the monsoon period. But in the last quarter of

Somali piracy in 2011, the shipping industry bore over 80% of these costs, or between \$5.3 and \$5.5 billion.



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### Factors contributing to the overall cost

**Ransoms:** In 2011, 31 ransoms were paid to Somali pirates, totaling around \$160 million. The average ransom was approximately \$5 million, up from around \$4 million in 2010. While 2011 saw a lower success rate for Somali pirates, the increased price of ransoms meant that pirates received greater revenue for fewer hijackings.

**Insurance:** The two major forms of piracy-related insurance are war risk and kidnap and ransom (K&R). This insurance market has evolved throughout 2011 to reflect continued developments in piracy. The 'war risk' region was expanded to include the larger Indian Ocean at the beginning of the year, and many shipping companies have received premium reductions for having private armed security on board ships. The total cost of war risk and K&R insurance was approximately \$635 million.

**Security Equipment and Guards:** A notable trend in 2011 was the rapid escalation in the use of private armed security. The total cost of both security equipment and armed guards in 2011 was between \$1.06 and \$1.16 billion.

**Re-routing:** In 2011, some ships opted to avoid the piracy high risk area (HRA) by hugging the western Indian coastline. This report assessed the cost of that re-routing for bulk carriers and tankers, and estimated the cost was around \$486 - \$680 million in 2011.

**Increased speed:** To date, no ship has been successfully hijacked that was

traveling at 18 knots or faster. Therefore, many ships will 'speed up' when transiting the HRA. Since more fuel is burned by ships transiting at faster speeds, these increased speeds are a large added cost. This project finds that the extra costs of increased speeds for containerships alone is around \$2.7 billion.

**Labor:** In 2011, 1,118 seafarers were held hostage, and 24 died. Due to this grave risk, many seafarers are entitled to double compensation when they transit the HRA and/or for the duration they are held hostage by pirates. This study estimates that the total cost of this additional compensation was \$195 million.

**Prosecutions and Imprisonment:** 20 countries have arrested, detained or tried Somali pirate suspects. The total cost of prosecutions and imprisonment was around \$16.4 million in 2011.

**Military Operations:** Over 30 countries contributed military forces, equipment, and vessels to counterpiracy activities in 2011. This report estimates the total cost of administrative and headquarter operations, military vessels, aircraft, and unmanned aerial vehicles to be \$1.27 billion in 2011.

**Counter-Piracy Organizations:** A number of new civil society and multilateral initiatives were launched in 2011 with a mission of reducing piracy, and its impact. This report calculates the total cost of funding and operational budgets for these organizations to be approximately \$21.3 million.

**NOTE:** You can download full paper from Newsletter's website – "CBRNE/CT Papers" link



### The Human Cost of Somali Piracy

Source: <http://oceansbeyondpiracy.org/>

The latest Oceans Beyond Piracy Study named "The Human Cost of Somali Piracy" was launched at Chatham House in London on June 6, 2011. The study's findings indicate that during the course of 2010:

- 4185 Seafarers were attacked with firearms and Rocket Propelled Grenades;
- 342 Survived Incidents in Citadels (ships' reinforced



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- security rooms);
- 1090 Seafarers were taken hostage;
- 516 Seafarers were used as human shields;
- The cost to the Somali community is also concerning. Piracy affects food security and endangers Somali youth.

The new study notes that the economic cost of piracy is now well-known, but it makes clear that the extent of the human cost is much less well-known and understood.

**NOTE:** You can download full paper from Newsletter's website – "CBRNE/CT Papers" link

### [Counter-piracy activities matrix](http://oceansbeyondpiracy.org/)

Source: <http://oceansbeyondpiracy.org/>  
(click on title)

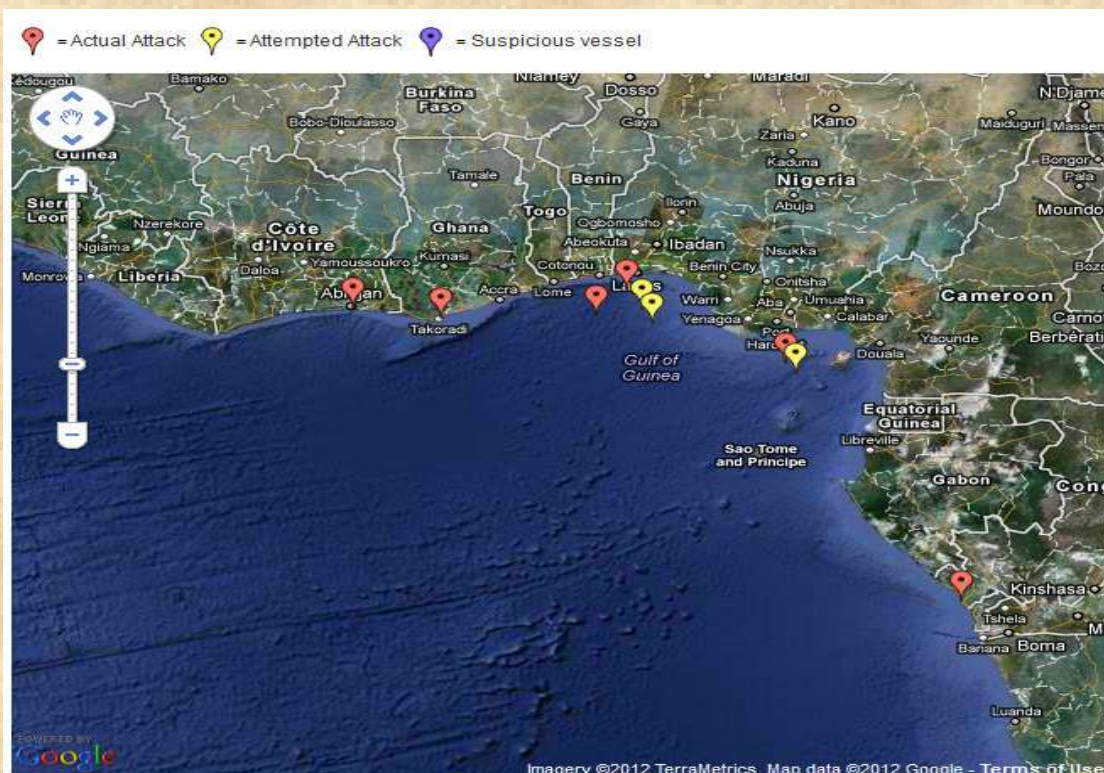
### **Pirates kill captain, engineer in attack off Nigeria waters**

Source: <http://www.vanguardngr.com/2012/02/pirates-kill-captain-engineer-in-attack-off-nigeria-waters-imb/>

Pirates fired on a cargo ship around 110 nautical miles off the coast of Nigeria on Monday (Feb 13, 2012) killing the captain and chief engineer, the International Maritime Bureau said.  
"Armed pirates chased and fired upon a drifting

Cyrus Mody, a manager at the IMB, said the vessel's captain and chief engineer "were killed in the shooting."

The attack is one of three to have occurred in the area since Thursday, the IMB said, warning ships to steer clear of waters off Nigeria.



bulk carrier. Vessel raised alarm and headed towards Lagos. All crew except the bridge team took shelter in the citadel," the IMB Piracy Reporting Centre said in a statement.

The group believes the attackers were "Nigerian pirates" said Noel Choong, head of the IMB's Kuala Lumpur-based piracy reporting centre.



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He said the centre had alerted Nigerian authorities, who launched an operation to intercept the pirates and rescue the ship. He could not provide any information on the origins of the ships or their crews.

Nigeria's navy spokesman Kabir Aliyu told AFP he had no information regarding a rescue operation.

The IMB said the other recent attacks in the area included a tanker that was hijacked south of Nigeria on Thursday. Nigerian vessels intercepted that ship and rescued all of its crew.

Another vessel was reported to have been attacked in the area on Saturday but escaped. Choong said the same pirates may have carried out the separate attacks.

The IMB, which is funded by shipowners, warned in September that the seas off Benin, Nigeria's neighbour, were emerging as a new piracy "hotspot" due to the weak enforcement capabilities of governments in the region.

West African leaders are scheduled to discuss the uptick in piracy at a regional summit that opens in Nigeria's capital on Wednesday.

Unlike the explosion of piracy off the coast of Somalia on the eastern side of the continent in recent years, those involved in the recent west African attacks have so far not appeared to be after ransom payments.

Fuel or oil cargo has been stolen for sale on the region's lucrative black market, while robberies have also occurred. Crew members have been beaten and the pirates tend to be heavily armed.

The theft of such cargo tends to be relatively sophisticated, with tankers often being directed to another pirate-controlled ship, where the fuel is transferred and then taken elsewhere for sale.

Last month, the watchdog said pirate attacks dropped slightly in 2011 worldwide for the first time in five years thanks to increased security, but added the situation off Somalia remained a concern.

Around the globe there were 439 recorded incidents of piracy and armed robbery last year, compared to 445 in 2010, which was the fourth consecutive year of increased piracy, the IMB said.

## London Olympics security report warns of extremist threat in host borough

Source: <http://www.guardian.co.uk/sport/2012/feb/12/olympic-security-extremist-host-borough?newsfeed=true>

One of the London boroughs hosting the

terrorism officials that it is home to a high



Olympics has been warned by counter-



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number of al-Qaida-inspired extremists. Councillors in Waltham Forest, north-east London, which will accommodate a section of the Olympic Park and a visitor campsite during the summer Games, have been given a restricted counter-terrorism local profile (CTLP) authored by police and the Home Office. According to a council paper, the CTLP reported "a high-level threat of AQ-inspired extremism from males aged between 20 and 38. The individuals of interest to the police are predominantly British-born second and third-generation migrants from south-east Asia. There is also interest from a number of Middle Eastern political movements and AQ-affiliated groups from north Africa."

A paper seen by councillors on how Waltham Forest implements the government's Prevent strategy on combating violent extremism says there are a number of other concerns, including "perceptions of inequality driven by relatively high deprivation levels, particularly within Pakistani communities", "experience of criminality due to high levels of crime and strong gang culture", and "possible radicalisation within family structures". It argues there are signs of "'jihadi cool' possibly linked to macho gang culture" and "negative perceptions of Prevent".

It also acknowledges the growth of far-right extremism and admits there is "growing discontent on local benefits around the Olympics".

Specialist officers from the Metropolitan police's SO15 counter-terrorism command visited Waltham Forest Islamic Association in December to warn Muslim children about the dangers of internet radicalisation.

Valentina Soria, a counter-terrorism expert at the Royal United Services Institute, a security thinktank, said the authorities were uneasy about the possibility of a homegrown attack during the Games, which are expected to attract up to 5.5 million visitors to the capital.

"They are particularly worried about the possible threat from 'lone wolf', self-radicalised individuals, because they are more difficult to detect," Soria said. "The security agencies will

be keen to take less and less risk so will try to investigate any intelligence leads of this kind that will come up. Security around the Olympics will be their first concern."

Each of the Olympic host boroughs – Waltham Forest, Hackney, Newham, Tower Hamlets and Greenwich – has been allocated three engagement officers as part of the £60m Prevent strategy.

An Olympics-specific Prevent group has been established, led by the Home Office, to co-ordinate a concerted national attempt to "challenge extremist activity" in the build-up to the Games.

This includes offering mosques training in leadership and governance and distributing "counter-narrative" material produced by the government's research, information and communications unit.

Launched in 2007 to stop the growth of homegrown terrorism, the Prevent programme was revised by the coalition in June last year. It set a number of objectives on how to "respond to the ideological challenge of terrorism and the threat from those who promote it" and identified the most serious threat as coming from al-Qaida and affiliated groups.

In August the Guardian reported that the Home Office was ramping up efforts to target universities as part of the initiative, with lecturers, chaplains and porters asked to inform the police about depressed or isolated Muslim students.

Scotland Yard has said it believes the risk of a terror attack on Britain during the Olympics is severe, the second highest threat level, meaning an attack is highly likely.

A Home Office spokesperson said: "The focus of the government and everyone involved is to deliver a safe and secure Olympic and Paralympic Games. We are working to a robust and comprehensive safety and security strategy. We want to reassure everyone that we will leave nothing to chance in our aim to deliver a Games that London, the UK and the whole world will enjoy."

### Al-Qaeda seeks new alliances, new conflicts

By Frank Gardner (BBC security correspondent)

Source: <http://www.bbc.co.uk/news/world-asia-india-17020667>



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Despite the media focus on events in Arab states, al-Qaeda has been largely absent from the headlines. But could recent announcements herald the group's resurgence in the region?

Largely ignored by the recent reform movements sweeping over much of the Arab world, al-Qaeda's core leadership has responded to developments in the Middle East and Africa with two major announcements within days of each other.

First came the statement on 9 February by Osama Bin Laden's successor, Dr Ayman al-Zawahiri, that al-Qaeda had now merged with

The number of actual al-Qaeda operatives inside Somalia is probably very small indeed.

Recent drone strikes by the CIA as well as military incursions by Kenya and Ethiopia have sought to restrict its use of "safe havens" in Somalia.

But the country is sufficiently fragile, lacking in effective government and endowed with such porous borders that it could still become a magnet for foreign jihadists.

**Somali peace 'remote'**

For core al-Qaeda, struggling to present itself as relevant to fast-moving events in the Arab world, it makes sense to shore up a strategic



Somalia's insurgent group, al-Shabab.

Then, on 11 February, an eight-minute video by the same al-Qaeda leader was posted on the internet calling for a jihad to overthrow the embattled regime of Syria's President Bashar al-Assad.

### 'Safe havens'

So what is behind the announcements and will either have any impact?

Regional analysts have greeted the Somali merger with a degree of cynicism, pointing out that al-Shabab already announced it was merging with al-Qaeda in 2009.

This time it was al-Qaeda that announced the merger, a sign - say some - of the heavy pressure it is under and its need for new partners and new fields of conflict.

Last week, the London think tank Rusi (Royal United Services Institute) put the number of non-Somali jihadists fighting alongside al-Shabab at 200, of whom it says a quarter are British.

alliance with a still-powerful regional movement bitterly opposed to the weak, western-aligned government in Mogadishu.

### "Start Quote

Al-Qaeda will now be looking to exploit Syria's sectarian tensions, playing on the resentment by many Sunnis at the supremacy of the Alawite minority"

But for al-Shabab, accepting and welcoming this merger is a strange move.

True, it too is under huge pressure; driven out of central Mogadishu, pushed back from the south-west border by the Kenyans and under attack from African Union forces elsewhere.

But al-Shabab is still the single most powerful Somali force in much of Somalia and it was assumed that sooner or later it would have to lay down its arms in a peace deal.

Yet now, having publicly and unequivocally allied itself with al-Qaeda, that prospect seems more remote than ever.

For many of the world's governments engaged in seeking a long-term solution to Somalia's problems, al-





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Shabab has effectively put itself completely beyond the pale.

### Rallying cry

Al-Qaeda's call to arms in Syria makes perfect sense from its perspective.

In Saturday's taped address, Zawahiri urged Muslims in the neighbouring states of Jordan, Turkey and Lebanon to rise up and support the rebellion against President Assad's rule.

He told Syrians not to rely on the West or Arab governments; there was no mention of Russia or China which blocked intervention at the UN Security Council.

Core al-Qaeda is now in a similar position to where it was in February 2003 when, having been driven out of Afghanistan, losing support and in search of a cause, Osama Bin Laden issued a rallying cry to fellow Muslims to come to the defence of Iraq.

In an audio statement at the time, he said: "Regardless of the removal or the survival of the socialist party or Saddam, Muslims in general and the Iraqis in particular must brace themselves for jihad against this unjust campaign and acquire ammunition and weapons."

While this did nothing to stave off that year's US-led invasion, it did help usher in a constant stream of foreign jihadists that provided the sharpened tip of Iraq's subsequent insurgency.

## Jihadist Opportunities in Syria

By Kamran Bokhari

Source: <http://www.stratfor.com/weekly/jihadist-opportunities-syria>

In an eight-minute video clip titled "Onward, Lions of Syria" disseminated on the Internet Feb. 12, al Qaeda chief Ayman al-Zawahiri expressed al Qaeda's support for the popular unrest in Syria. In it, al-Zawahiri urged Muslims in Turkey, Iraq, Lebanon and Jordan to aid the Syrian rebels battling Damascus. The statement comes just days after a McClatchy report quoted unnamed American intelligence officials as saying that the Iraqi node of the global jihadist network carried out two attacks against Syrian intelligence facilities in Damascus, while Iraqi Deputy Interior Minister Adnan al-Assadi said in a recent interview with AFP that Iraqi jihadists were moving fighters and weapons into neighboring Syria.

Al Qaeda's long-term goal has been to oust Arab governments to facilitate the return of a

Al-Qaeda will now be looking to exploit Syria's sectarian tensions, playing on the resentment by many Sunnis at the supremacy of the Alawite minority.

And yet Zawahiri's message has attracted surprisingly little attention on social media sites, at least from those opposing the Syrian government.

Two days after it was posted on the internet, Syrian Facebook pages calling for President Assad's downfall had still not reported it.

### New foothold?

On the micro-blogging site Twitter, it was either ignored or condemned by major users.

There was marginally more interest from Assad supporters on social media sites, who warmed to the suggestion that al-Qaeda's message somehow proved it was in league with the US and Israel.

But, as has been seen in Egypt and Tunisia, trends on Twitter and Facebook do not necessarily project the situation one year down the line.

While al-Qaeda's message may be unwelcome to most in the Syrian opposition today, there could still be scope in the future.

If, say, Syria descends into protracted anarchy, al-Qaeda could establish a new foothold in a country that for years imprisoned and tortured its members.

transnational caliphate. Its tactics have involved mainly terrorism intended to cause U.S. intervention in the region. Al Qaeda has hoped such interventions would in turn incite popular uprisings that would bring down the Arab regimes, opening the way for the jihadists to eventually take power. But the jihadist network's efforts have failed and they have remained a marginal player in the Arab world. By addressing Syria, al Qaeda hopes to tap into the past year of Arab unrest, a movement in which it played little to no part. The region's regimes have been on the defensive due to the rise of political Islamism, growing public disillusionment and the sectarian Sunni-Shiite split, though foreign military intervention has been required to actually topple



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them, as we saw in Libya. Growing uncertainty in the region and the gradual weakening of these regimes gives jihadists an opportunity to reassert their relevance. Al-Zawahiri's statement, however, represents a continuation of the central leadership's inability to do more than issue taped statements from its Pakistani hideouts, much less engage in strategic planning.

### Jihadists and the Middle East Unrest

Al Qaeda's extreme transnational agenda always has had limited appeal to the Arab masses. Popular unrest in Arab countries and the empowerment of political Islamists via elections in Egypt and Tunisia have underscored the jihadists' irrelevance to societies in the Islamic world. The jihadists have failed to oust a sitting government anywhere in the Islamic world, even in Afghanistan, where the Taliban's rise to power in the mid-1990s occurred in a power vacuum. Recognizing their limitations, jihadists have focused on conducting attacks intended to create crises within target countries and in those countries' external relations -- as is the case in Pakistan and Yemen. The jihadist hope has been to create enough disorder that they would eventually be able to seize power.

This approach has proved difficult because Arab governments (despite their weaknesses) have been resilient and societal fragmentation has not worked to the advantage of jihadists. A second option has been to try to take advantage of power vacuums that were created by other forces. Iraq presented one such opportunity when U.S. forces ousted the Baathist regime in 2003, allowing for the emergence of al Qaeda's then-most active node. In Iraq, the country's Shiite majority posed a daunting obstacle to the jihadists even before the jihadists alienated their Iraqi Sunni allies to the point that they began siding with the Americans, which led to a degradation of the jihadist network in Iraq. By contrast, post-Gadhafi Libya, with its proliferation of militias -- some of which have both Islamist and jihadist tendencies -- could become a more welcoming place for jihadists. But even if Libya were to descend into Islamist militancy, geography would most likely prevent it from spreading too far beyond Libya's borders.

However, given Syria's strategic location at the crossroads of so many key geopolitical fault lines, the meltdown of the Syrian state could

easily result in a regional conflict. Most stakeholders oppose foreign military intervention in Syria for this very reason. Many states are eyeing the strategic goal of weakening Iran geopolitically through the ouster of the Alawite regime in Syria, but even that prospect may not be enough to offset the potential costs.

### Jihadists' Prospects in Syria

With or without foreign intervention, jihadists in the region have ample room for maneuver in Syria. The most significant regional jihadist presence lies across the Syrian border in Iraq. These forces benefited from Damascus' decision to back Sunni insurgents from 2003 to 2007. The consolidation of Shiite power in Iraq greatly weakened these forces. Now that Syria is unraveling and armed resistance to the regime is shaping up, the jihadist flow is reversing direction, with jihadists now entering Syria from Iraq.

Al Qaeda in Iraq sought to channel Sunni disenfranchisement at the hands of the Shia, but now the group is looking to help Syrian Sunnis empower themselves at the expense of the Iranian-backed Alawites. Jihadist forces within striking distance of Syria are likely trying to exploit the unpopularity of the Alawite regime among Sunnis as a way to gain a foothold in Syria.

The level of factionalization among the Syrian rebels works to the advantage of jihadists. Just as Iraq's Sunni tribal forces, Islamists and Baathists cooperated with the jihadists against U.S. troops and the country's new Shia-dominated security forces, many elements within Syria's Sunni population would be willing to align with jihadists given the constraints they face in battling the well-armed Alawite-dominated Syrian military.

Complicating matters, the Syrian intelligence apparatus has long cultivated ties with jihadists to insulate Damascus from jihadist attacks and to use jihadists in proxy wars with Syria's neighbors. As the state gets more and more embroiled in the internal conflict and the intelligence apparatus gets bogged down with rising distractions at home, these jihadist elements who have been on the payroll of Syrian intelligence can turn against their former handlers along the lines of what has happened in Pakistan and Yemen.



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In addition to the jihadists based in Iraq and those who have long worked with the Syrian regime, neighboring Jordan and Lebanon host jihadist forces that also see opportunities in the Syrian unrest. Saudi Arabia also has Sunni militants angered by the killing of Sunnis at the hands of what they call the "infidel" Alawite regime. Just as the Saudis redirected their own jihadists toward fighting in Iraq instead of Saudi Arabia, Riyadh could encourage jihadist non-state actors to fight in Syria. A recent fatwa from a number of top Sunni religious scholars (including some prominent Saudis) forbidding membership in the Syrian security forces would help in this regard.

Regional stakeholders are reluctant to see foreign military intervention, leaving the option of covert support in the form of supplying weapons to the Syrian rebels. Jihadists can be expected to make use of such covert support as they work to insert themselves in Syria. Even if weapons aren't intended for jihadists, the increased flow of weapons and training into Syria provide an additional opportunity for jihadists to build on this support by offering more battle-hardened experience to a still disorganized armed resistance.

But while neither the domestic opponents of the Syrian regime nor the international stakeholders have an interest in seeing Syria collapse into sectarian conflict, jihadists want just that. As in Iraq, we could see bombings against Alawites and other non-Sunni groups, including Iranian and Hezbollah targets. This could be extended to attacks in Lebanon in an attempt to stoke a regional sectarian conflict.

The jihadists could well succeed in sparking a regional sectarian conflict that would involve multiple state and non-state actors and would see Iran and Saudi Arabia locked in an intense proxy war. Western or Israeli involvement in the conflict would please the jihadists even more.

It is therefore in the jihadists' interest to thwart a negotiated settlement in Syria. Though it is still unclear who was responsible for the Dec. 23, 2011, and Jan. 6 suicide attacks targeting Syrian intelligence, they served the jihadists' purpose as they forced the regime to crack down even harder on opponents (both armed and unarmed).

As the rebels and their supporters respond in kind, the jihadists can thus instigate a cycle of violence leading to an intensely polarized environment. The net result of such a process

could be a meltdown of the Syrian state and the rise of multiple armed factions, including jihadists.

The collapse of the Syrian state in turn would allow the jihadists a wide arena in which to operate, stretching from Lebanon to Iraq and putting them very close to Jordan, Israel and the Palestinian territories -- the best theater a jihadist could ask for. However, the nature of their capabilities, which will determine the extent of damage they can cause in the Levant and the surrounding area, remains unclear. It is by no means inevitable that jihadists will flourish in Syria and use it as a launching pad to undermine regional security. The Syrian state is still very much holding, and rebel forces remain divided and do not appear capable of serious advances against the government.

### The Risk of Regional Sectarian War

The Syrian upheaval takes place at a time of heightened geopolitical and sectarian tensions in the region, where Iran and its largely Arab Shiite allies are seeking to make inroads into the largely Sunni Arab countries.

For Tehran and its main non-state proxy, the Lebanese Shiite Islamist group Hezbollah, the survival of an Alawite regime in Syria that owes its survival to Iran is critical. Tehran and Hezbollah both have a military presence in Syria, which is assisting Damascus in its efforts to contain the uprising. This is a major cause of concern for international stakeholders, especially Saudi Arabia. Riyadh is the regional player most enthusiastic about seeing regime change in Syria to counter the threat from Iran. For its part, the Iranian-aligned government in Iraq has a strong incentive to make sure that jihadists in Iraq are not able to relocate to Syria. Baghdad knows all too well that a collapse of the Syrian regime would lead to a revival of Sunni resistance against the Shia, the last thing the Iraqi Shia wish to see.

The United States and Turkey want to ensure that al Qaeda is unable to hijack the Syrian uprising. But neither Washington nor Ankara has the tools to ensure that jihadists don't make their way through Syria's borders with Iraq, Jordan, and Lebanon. The Saudis share this viewpoint, but because they are somewhat insulated they would not mind just enough chaos to bring down the Syrian regime, the closest Arab ally of Iran.

Jordan is already deeply fearful of the fallout from Syria while it deals with



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growing unrest at home, and has a strong interest in making sure Islamist militants on its soil do not use enter the Syrian conflict. Meanwhile, Lebanon could descend into sectarian strife, especially as the Syrian state's ability to maintain control there erodes, the Saudis see an opportunity and the Iranians feel their position becoming vulnerable.

Just how the many moving parts in this dynamic interact will determine the extent to

which Syria and its environs become a jihadist playground. A potential collapse of the Syrian state greatly increases the risk of a regional sectarian war that al Qaeda could greatly benefit from. The challenge for those seeking regime change in Syria is thus how to rid the country of Iranian influence while not opening the door to transnational jihadism.

### New Counter-terrorism for 2012

By Bruce Newsome, Ph.D.

Source: <http://www.fairobserver.com/article/new-counter-terrorism-2012>

*Analysis on the manner of bin Laden's death, and what the extra-judicial killing of terrorists means for counter-terrorism in the future.*

In May 2011, Osama bin Laden was killed - a triumph for the administration of Barack Obama, the intelligence agents who found him, and the special operations soldiers who caught him.

At the same time, bin Laden's death was of little significance to current terrorist operations and threw away a genuine opportunity to change counter-terrorism for the better.

Bin Laden's death was just one of many in a strategy of extra-judicial killings (mostly by unmanned aerial vehicles or drones), accelerated by George W. Bush at the end of his administration as a replacement for his curbed strategy of wars and detentions. Within a few months of taking office in 2009, Barack Obama's administration focused even more on the strategy of extra-judicial killing, after failing to persuade Congress and Americans generally of the virtues and practicalities of judicial prosecution of terrorists.

The President's main public struggle with the legacy of the war on terror was the resolution of hundreds of detainees of uncertain legal status at Guantanamo Bay, Cuba, and less well-known extra-judicial detention sites elsewhere. As a candidate, Obama pledged to close the camp and judicially prosecute or release the detainees, but as President he faced domestic political opposition to bringing any terrorists into the continental US, sending terrorists back to hotbeds of terrorism (Yemen is the country of origin for the largest national group at Guantanamo Bay), or releasing any detainees who would reveal the sordid details

about the petty and injudicious ways in which most of them were detained and treated.

The President faced real counter-terrorist operational choices between extra-judicial killings and detention. The President escalated the killings and fecklessly tinkered with the detentions. Mostly secretly, the Obama administration increased the number of lethal attacks on alleged terrorists, from Sudan to Pakistan.

The killing of bin Laden followed this pattern. Probably US operators knew that bin Laden was not wanted alive. The President's main deviation from practice was his apparent insistence on using force on the ground, rather than delivered from the air. He insisted on certain resolution with a decreased risk of collateral casualties, despite the greater risk of friendly casualties, and he deserves credit for this decision.

Many people celebrated the death of a certain terrorist. Some characterized it as justice, others as a decisive blow to al-Qa'ida. Yet the problem with extra-judicial killing remains the stimulus towards more terrorism justified as retaliation for illegal counter-terrorist acts. Osama bin Laden had achieved his objectives before his death. He had struck the US at home, caused more casualties in one attack than any other terrorist event, provoked a costly US reaction, mired US forces in Afghani and Iraqi insurgencies, inspired local terrorists inside target Western countries, and escaped justice for nearly one decade since the attacks of 11 September 2001 (9/11) and about two



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decades since his first involvement in terrorism. Osama bin Laden was not in control of current terrorists when he died. The terrorist threats to the US are concentrated in groups that took the name of al-Qa'ida but not his command. Al-Qa'ida in Iraq (Mesopotamia) effectively stimulated civil war between Shia and Sunni. According to leaked intelligence intercepts, bin Laden counseled al-Qa'ida in Iraq against such diversion from his primary targets in the west. Al-Qa'ida in the Maghreb effectively waged war on secular autocracies in North Africa and aided Jihadis in Europe without bin Laden's aid.

Most dramatically, Al-Qa'ida in Yemen (the Arabian Peninsula) developed from local insurgent aspirations into the greatest threat to the US today, under a younger and more fluent leader - Anwar al-Aulaqi, whose cultural and linguistic literacy has more directly inspired Western terrorists. While Osama released occasional and obtuse messages. Al-Qa'ida in Yemen became the innovative and ambitious group that bin Laden's group used to be. It sent Nigerian-born Umar Farouk Abdulmutallab with explosive underpants on a flight to Detroit on 25 December 2009. No other attack came closer to success within the US since 9/11. Al-Qa'ida in Yemen then mailed to the US explosives hidden inside printer cartridges, rigged to detonate while the carrier was in mid-air, probably in US air space. These attacks

failed apparently due to a mix of user error and unusual public vigilance.

In September 2011, Aulaqi was killed by a US drone strike. Again, this was a triumph for US intelligence and a robust strategy. Al-Qa'ida is practically defeated and marginalized by the Arab revolutions of spring 2011. But al-Qa'ida survives. In 2012, al-Qa'ida survives at local levels and was supposedly involved in the revolutions in Libya in 2011 and in Syria in 2012. Independent of al-Qa'ida, but inspired by it, is the wider jihadi terrorist movement that is the true threat that individual killings cannot defeat.

Capture and trial of Osama bin Laden or Aulaqi would have granted the administration an opportunity to change the character of US counter-terrorism, away from its legacy obsession with public safety at any cost and towards a more judicial process, in which terrorists are treated as criminals, subject to execution during lethal terrorist acts, but otherwise more usefully captured and prosecuted. Prosecution exposes the terrorist's ludicrous justifications and creates a sustainable judicial regime against terrorism that nobody could condemn.

The current strategy does materially damage al-Qa'ida and its derivatives, but leaves behind martyrs on battlefields of their own choosing, martyrs who continue to inspire generally, even though their deaths certainly deter locally.

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### 'Underwear Bomber' Sentenced to Life for Attempted Christmas Day Attack

Source:[http://www.fbi.gov/news/news\\_blog/underwear-bomber-sentenced-to-life-for-attempted-christmas-day-attack?utm\\_campaign=email-Immediate&utm\\_medium=email&utm\\_source=extras&utm\\_content=71849](http://www.fbi.gov/news/news_blog/underwear-bomber-sentenced-to-life-for-attempted-christmas-day-attack?utm_campaign=email-Immediate&utm_medium=email&utm_source=extras&utm_content=71849)

Umar Farouk Abdulmutallab, the so-called "underwear bomber," was sentenced today to life in prison as a result of his guilty plea to all eight counts of a federal indictment charging him for his role in the attempted Christmas Day 2009 bombing of Northwest Airlines Flight 253.

Abdulmutallab, 25, of Kaduna,



Nigeria, pleaded guilty on Oct. 12, 2011, to conspiracy to commit an act of terrorism transcending national boundaries, among other charges. Abdulmutallab's purpose in taking a bomb on board Flight 253 was to detonate it during flight, causing the plane to crash and killing the 290 passengers and crew members on board. As Flight 253 was on descent into Detroit



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Metropolitan Airport, the defendant detonated the bomb, which resulted in a fire, but otherwise did not fully explode. Passengers and flight attendants tackled the defendant and extinguished the fire.

"The case against Abdulmutallab was a combination of the hard work and dedication of

FBI personnel as well as multiple federal, state, and local agencies. Those individuals who experienced Christmas Day 2009 first-hand should be rest assured that justice has been done," said FBI Special Agent in Charge Arena.

## Researchers Propose New Approach to Tackle Terrorism

Source: <http://www.medicalnewstoday.com/releases/241682.php>

With a growing number of terrorist attacks being committed by 'home-grown' radicals, researchers at Queen Mary, University of London are proposing a totally new approach to preventing terrorism.

Researchers say the current approach, via the criminal justice system, has failed to prevent terrorism and may have even increased membership of terrorist groups by alienating those most vulnerable to radicalisation.

After examining the evidence the researchers propose a drastic re-think and suggest that public health measures could hold the key to preventing radicalisation.

The study suggests that current counter-terrorism initiatives by the British Government have stigmatised and alienated Muslim groups in the UK by treating them as 'under suspicion'. This has actually hampered the prevention of terrorism by distancing radicals from main stream society and pushing them towards extremist groups. The research also shows that there is very little evidence that 'profiling' works.

The research is published in BioMed Central's open access journal *BMC Medicine* by Kam Bhui, Professor of Cultural Psychiatry and Epidemiology at Queen Mary, and co-researchers from King's College London. It looks at all the available evidence and draws a number of surprising conclusions.

It reports that violent radicalisation is more common in people who are young, educated, and isolated or marginalised. In fact those who committed acts of terrorism tended to kill more people if they were highly educated. Therefore the researchers suggest that education in schools and universities is an excellent way to intervene.

The study also suggests that young people are particularly vulnerable to radicalisation when they are going through times of great change such migration, changing schools, going to

university or just going through adolescence. At such times, extremist groups can offer a feeling of belonging.

The researchers suggest that instead, such young people could be helped to integrate and to engage positively with the political process.

Finally the research concludes that including the current surveillance system could be greatly improved simply by including data about factors which either increase the likelihood of radicalisation or offer a protective effect.

Professor Bhui explains: "These home-grown terrorists are thankfully rare so trying to identify them individually is like looking for a needle in a haystack. And in doing so, lots of innocent people have been marginalised. "On the other hand, using a public health approach we can work with a large group of people to make radicalisation less likely while also improving inclusion and health in general."

The paper explains that a public health approach would mean looking at the whole population, trying to understand how people are radicalised, and using this information to aim prevention strategies at large groups of people.

This approach has been successfully used for improving health, for example by encouraging people to quit smoking or by preventing knife crime injuries. It is also a more holistic approach which addresses education, inequality, housing, family, community relations, etc. "This approach doesn't condone terrorism but it does aim to understand how people become radicalised and provides new tactics for preventing terrorists attacks," explains Professor Bhui.

Professor Bhui and his colleagues are continuing with this research and are now studying how and why people develop sympathies towards extremist groups.



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### Statue of Liberty next on hit list?

Source: <http://www.wnd.com/2012/02/statue-of-liberty-next-on-hit-list/>

Former Director of the Central Intelligence Agency R. James Woolsey told a radio host today that Americans “have to get ready” for Iran to retaliate against international pressure over its nuclear program with terrorist attacks, including, possibly, a strike on the Statue of Liberty.

Woolsey, who currently serves as chairman of the Foundation for Defense of Democracies, was speaking on Aaron Klein Investigative Radio on New York’s WABC Radio. Klein pointed out that Iran supports the militant Islamist group Hezbollah, which has been designated by the U.S. and several other nations as a terrorist organization, and asked Woolsey if he foresees the group plotting attacks on Jewish targets in the near future.



“Yes,” Woolsey responded. “They [Iran] have Hezbollah, and it is the most professional terrorist organization in the world. It makes al-Qaida look like a real group of amateurs. And they have expanded around the world.”

He continued, “We will have a very serious problem from terrorism if we insist on Iran shutting down its nuclear program, but we have to do that. And so we have to get ready to deal with assaults on government facilities, on famous symbols of the country like the Statue of Liberty, on Jewish synagogues, there are a number of things Hezbollah could

go after ... and they probably will.”

### Somali pirates take more risks and rethink tactics

Source: <http://www.guardian.co.uk/world/2012/feb/21/somali-pirates-rethink-tactics?newsfeed=true>

The Somali pirates did not have a good year in 2011, statistically speaking at least. According



to Nato, they only managed four successful attacks off the coast of the country, and only one in the Gulf of Aden, just further north.

They had more luck in the more distant waters of the Arabian sea, where they captured 19 ships, and attempted to take almost 50 others. And therein lies the worry for all the nations that have supported efforts to rein in criminals who have demanded – and received – millions of dollars in ransoms for the ships and crews they have hijacked.

There is a whiff of desperation about the pirates at the moment. They are travelling further afield and taking more risks, after finding the tactics that worked in the past are bearing less fruit, particularly now merchant ships can carry armed security teams that fight machine-gun fire with machine-gun fire. But nobody expects the pirates to go away, or to give up. “Earning \$10,000 for a Somali is like



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winning the lottery," said one western official. "The question is, what are they going to do next? How are they going to adapt?"

There are signs they are already rethinking. **Tighter security at sea may have driven some pirates to include kidnappings for ransom on land.** In January, US Navy Seals swooped on Somalia's Galmudug region to rescue two kidnapped aid workers. Nine of the pirates were killed.

**Military sources say pirates have withdrawn some of their camps and logistical hubs away from the beaches.** Further inland they can mingle more easily with local fishermen. This increases the risk of civilian casualties from airstrikes launched by nations contributing to Operation Atalanta, the EU-led mission (EU-Navfor) which is now in its fourth year. That scenario is not as far-fetched as it sounds.

Sources have told the Guardian that in 2010, and again last year, EU-Navfor considered whether airstrikes were feasible, and legal. The answer to both questions was yes.

Support for robust action has been growing among some European nations, and has interested David Cameron, who has been briefed regularly on the situation in meetings of the national security council. "Somalia has been going further up the agenda at the NSC," said one Whitehall official, who has been privy to some of the discussions. "We know where the pirate camps are, where they set up, and where they launch from." Asked if airstrikes could come, the source said: "Yes. The political will is changing."

However, the military remains cautious about what commanders call "over the beach" operations. While mounting them would be relatively simple, and probably only involve helicopters launched from warships, the risk of civilian casualties remains high.

Some have argued that with naval operations in the last six months proving much more successful, it might seem odd to up the stakes now. So, for the time being, the plans remain on the drawing board.

There are other pressing issues. More than 1,000 Somalis are awaiting trial in different countries accused of piracy offences, including dozens captured before and after Christmas by a team led by the Royal Fleet Auxiliary, Fort Victoria. The only place the pirates won't end up facing trial is the UK. The Foreign Office has made clear it is much better and cheaper for pirates to be tried in the region, rather than being brought to Britain, where they might cause added embarrassment by claiming asylum. The UK government has poured money into the legal and prison system of the Seychelles, where many pirates are taken after capture. Two lawyers from the Crown Prosecution Service are based there. But prison capacity in the Seychelles is very small, and what happens when it cannot take any more?

The London conference this week will have to start conjuring solutions if the EU and the US, which has also supported the anti-piracy mission, are to avoid the sight of captured Somalis being set free because there was nowhere to take them. A leaked draft of the final communiqué from this week's conference, which was published on Somali websites, says the participants welcomed arrangements made by some members to capture pirates at sea, transfer them to the Seychelles and Mauritius for trial and then, if convicted, transfer them to prisons in the breakaway Somaliland region and in the semi-autonomous Puntland enclave.

### **Somali piracy still cost the world economy between \$6.6bn and \$6.9bn last year.**

Most of the costs to the shipping industry derived from pre-emptive efforts to protect ships. Shipowners paid an extra \$2.7bn for fuel to speed through high-risk areas last year. Another \$1.1bn was spent on security equipment and armed guards, with \$635m going on insurance and between \$486m and \$680m on rerouting ships along the western Indian coast.

## **The Myth of the End of Terrorism**

By Scott Stewart

Source: <http://www.stratfor.com/weekly/myth-end-terrorism>

In this week's Geopolitical Weekly, George Friedman discussed the geopolitical cycles that change with each generation. Frequently,

especially in recent years, those geopolitical cycles have intersected with changes in the way the tactic of





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terrorism is employed and in the actors employing it.

The Arab terrorism that began in the 1960s resulted from the Cold War and the Soviet decision to fund, train and otherwise encourage groups in the Middle East. The Soviet Union and its Middle Eastern proxies also sponsored Marxist terrorist groups in Europe and Latin America. They even backed the Japanese Red Army terrorist group. Places like South Yemen and Libya became havens where Marxist militants of many different nationalities gathered to learn terrorist tradecraft, often instructed by personnel from the Soviet KGB or the East German Stasi and from other militants.

The Cold War also spawned al Qaeda and the broader global jihadist movement as militants flocking to fight the Soviet troops who had invaded Afghanistan were trained in camps in northern Pakistan by instructors from the CIA's Office of Technical Services and Pakistan's Inter-Services Intelligence directorate. Emboldened by the Soviet withdrawal from Afghanistan, and claiming credit for the subsequent Soviet collapse, these militants decided to expand their efforts to other parts of the world.

The connection between state-sponsored terrorism and the Cold War ran so deep that when the Cold War ended with the Soviet Union's collapse, many declared that terrorism had ended as well. I witnessed this phenomenon while serving in the Counterterrorism Investigations Division of the Diplomatic Security Service (DSS) in the early 1990s. While I was in New York working as part of the interagency team investigating the 1993 World Trade Center bombing, a newly appointed assistant secretary of state abolished my office, declaring that the DSS did not need a Counterterrorism Investigations Division since terrorism was over.

Though terrorism obviously did not end when the Berlin Wall fell, the rosy sentiments to the contrary held by some at the State Department and elsewhere took away the impetus to mitigate the growing jihadist threat or to protect diplomatic facilities from it. The final report of the Crowe Commission, which was established to review the twin August 1998 bombing attacks against the U.S. embassies in Nairobi and Dar es Salaam, explicitly noted this neglect of counterterrorism and security programs, as did the 9/11 Commission report.

The 9/11 terrorist attacks triggered a shift in international geopolitics by leading the United States to concentrate the full weight of its national resources on al Qaeda and its supporters. Ironically, by the time the U.S. government was able to shift its massive bureaucracy to meet the new challenge, creating huge new organizations like the Department of Homeland Security, the efforts of the existing U.S. counterterrorism apparatus had already badly crippled the core al Qaeda group. Though some of these new organizations played important roles in helping the United States cope with the fallout of its decision to invade Iraq after Afghanistan, Washington spent billions of dollars to create organizations and fund programs that in hindsight were arguably not really necessary because the threats they were designed to counter, such as al Qaeda's nuclear briefcase bombs, did not actually exist. As George Friedman noted in the *Geopolitical Weekly*, the sole global superpower was badly off-balance, which caused an imbalance in the entire global system.

With the continued diminution of the jihadist threat, underscored by the May 2011 death of Osama bin Laden and the fall in Libya of the Gadhafi regime (which had long employed terrorism), once again we appear on the brink of a cyclical change in the terrorism paradigm. These events could again lead some to pronounce the death of terrorism.

Several developments last week served to demonstrate that while the perpetrators and tactics of terrorism (what Stratfor calls the "who" and the "how") may change in response to larger geopolitical cycles, such shifts will not signal the end of terrorism itself.

### The Nature of Terrorism

There are many conflicting definitions of terrorism, but for our purposes we will loosely define it as politically motivated violence against noncombatants. Many terrorist acts have a religious element to them, but that element is normally related to a larger, political goal: Both a militant anti-abortion activist seeking to end legalized abortion and a jihadist seeking to end the U.S. military presence in Iraq may act according to religious principles, but they ultimately are pursuing a political objective.

Terrorism is a tactic, one employed by a wide array of actors. There is no



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single creed, ethnicity, political persuasion or nationality with a monopoly on terrorism. Individuals and groups of individuals from almost every conceivable background -- from late Victorian-era anarchists to Klansmen to North Korean intelligence officers -- have conducted terrorist attacks. Because of the impreciseness of the term, Stratfor normally does not refer to individuals as terrorists. In addition to being a poor descriptor, "terrorist" tends to be a politically loaded term.

Traditionally, terrorism has been a tactic of the weak, i.e., those who lack the power to impose their political will through ordinary political or military means. As Carl von Clausewitz noted, war is the continuation of politics by other means; terrorism is a type of warfare, making it also politics by other means. Because it is a tactic used by the weak, terrorism generally focuses on soft, civilian targets rather than more difficult-to-attack military targets.

The type of weapon used does not define terrorism. For example, using a vehicle-borne improvised explosive device against an International Security Assistance Force firebase in Afghanistan would be considered an act of irregular warfare, but using it in an attack on a hotel in Kabul would be considered an act of terrorism. This means that militant actors can employ conventional warfare tactics, unconventional warfare tactics and terrorism during the same campaign depending on the situation.

Terrorist attacks are relatively easy to conduct if they are directed against soft targets and if the assailant is not concerned with escaping after the attack, as was the case in the Mumbai attacks in 2008. While authorities in many countries have been quite successful in foiling attacks over the past couple of years, governments simply do not have the resources to guard everything. When even police states cannot protect everything, some terrorist attacks invariably will succeed in the open societies of the West.

Terrorist attacks tend to be theatrical, exerting a strange hold over the human imagination. They often create a unique sense of terror dwarfing reactions to natural disasters many times greater in magnitude. For example, more than 227,000 people died in the 2004 Asian tsunami versus fewer than 3,000 on 9/11, yet the 9/11 attacks produced a worldwide sense of terror and a geopolitical reaction that has

had a profound and unparalleled impact on world events over the past decade.

### Cycles and Shifts

A number of events last week illustrate the changes happening in the terrorism realm and demonstrate that, while terrorism may change, it is not going to end.

On Feb. 17, the FBI arrested a Moroccan man near the U.S. Capitol in Washington who allegedly sought to conduct a suicide attack on the building. The suspect, Amine el Khalifi, is a clear example of the shift in the jihadist threat from one based on the al Qaeda core group to one primarily deriving from grassroots jihadists. As Stratfor has noted for several years, while these grassroots jihadists pose a more diffuse threat because they are harder for national intelligence and law enforcement agencies to focus on than hierarchical groups, the threat they pose is less severe because they generally lack the terrorist tradecraft required to conduct a large-scale attack. Because they lack such tradecraft, these grassroots militants tend to seek assistance to conduct their plots. This assistance usually involves acquiring explosives or firearms, as in the el Khalifi case, where an FBI informant posing as a jihadist leader provided the suspect with an inert suicide vest and a submachine gun prior to the suspect's arrest.

While many in the media tend to ridicule individuals like el Khalifi as inept, it is important to remember that had he succeeded in finding a real jihadist facilitator rather than a federal informant, he could have killed many people in an attack. Richard Reid, who many people refer to as the "Kramer of al Qaeda" after the bumbling character from the television show *Seinfeld*, came very close to taking down a jumbo jet full of people over the Atlantic because he had been equipped and dispatched by others.

Still, the fact remains that the jihadist threat now predominantly stems from unequipped grassroots wannabes rather than teams of highly trained operatives sent to the United States from overseas, like the team that executed the 9/11 attacks. This demonstrates how the jihadist threat has diminished in recent years, a trend we expect to continue. This will allow Washington to increasingly focus attention on things other than jihadism, such as the fragmentation of Europe, the transformation of global economic production and Iran's



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growing regional power. It will mark the beginning of a new geopolitical cycle.

Last week also brought us a series of events highlighting how terrorism may manifest itself in the new cycle. On Feb. 13, Israeli diplomatic vehicles in New Delhi, India, and Tbilisi, Georgia, were targeted with explosive devices. In Tbilisi, a grenade hidden under a diplomatic vehicle was discovered before it could detonate. In New Delhi, a sticky bomb placed on the back of a diplomatic vehicle wounded the wife of the Israeli defense attaché as she headed to pick up her children from school.

On Feb. 14, an Iranian man was arrested after being wounded in an explosion at a rented house in Bangkok. The blast reportedly occurred as a group was preparing improvised explosive devices for use against Israeli targets in Bangkok. Two other Iranians were later arrested (one in Malaysia), and Thai authorities are seeking three more Iranian citizens, two of whom have reportedly returned to Iran, alleged to have assisted in the plot.

While these recent Iranian plots failed, they nonetheless highlight how the Iranians are using terrorism as a tactic in retaliation for attacks Israel and Israeli surrogates have conducted against individuals associated with Iran's nuclear program.

It is also important to bear in mind as this new geopolitical cycle begins that terrorism does not just emanate from foreign governments, major subnational actors or even transnational radical ideologies like jihadism. As we saw in the July 2011 attacks in Norway conducted by Anders Breivik and in older cases involving suspects like Eric Rudolph, Timothy McVeigh and Theodore Kaczynski in the United States, native-born individuals who have a variety of grievances with the government or society can carry out terrorist attacks. Such grievances will certainly persist.

Geopolitical cycles will change, and these changes may cause a shift in who employs terrorism and how it is employed. But as a tactic, terrorism will continue no matter what the next geopolitical cycle brings.

### Is al-Qaeda Still a Terror Threat to U.S.?

Source: <http://www.opposingviews.com/i/politics/al-qaeda-splintered-scattered-still-dangerous>

A recent report from the RAND Corporation on al-Qaeda's future says that the terrorist organization remains extremely dangerous and will demand America's continued attention for years to come, echoing points Heritage has been making for some time now.

The report, "Al Qaeda in Its Third Decade," by Brian Michael Jenkins, takes a step back from the political rhetoric surrounding ongoing U.S. counterterrorism efforts at home and abroad to critically assess al-Qaeda's current status and future prospects.

RAND's report comes at a critical time, as last week saw the 45th attempted terrorist plot on U.S. soil since 9/11.

In a blunt assessment, the report declares that "claims of [Al-Qaeda's] imminent defeat are hyperbole," noting that the organization is "in decline, although not finished," remaining "resilient and opportunistic." Jenkins goes on to

highlight that al-Qaeda's operations are largely being carried out by various regional affiliates and partners rather than by the core organization itself, due in part to U.S. counterterrorism efforts worldwide. Al-Qaeda's threat has been diffused across a broader spectrum, leading to a higher probability of less-destructive—and harder to detect—"do-it-yourself" terrorist attacks.

Regarding the war in Afghanistan, Jenkins notes the symbolic, as well as strategic, significance to al-Qaeda of the Taliban regaining influence there. Jenkins sees a premature

U.S. withdrawal as jeopardizing hard-fought gains against the Taliban and notes that al-Qaeda would surely benefit from a Taliban victory. He casts doubt upon the viability of nascent U.S.–Taliban peace talks, noting that it is unlikely that the Taliban would abandon al-Qaeda for political concessions. Instead,



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following a U.S. drawdown, a resurgent Taliban would control large portions of Afghanistan and become a “more congenial host” to al-Qaeda, providing the terrorist organization with political support.

Indeed, Heritage’s Lisa Curtis has voiced the same concerns, warning that a precipitous withdrawal would “provide the conditions for al-Qaeda to revive in the region.” Jenkins also echoes Curtis’s warning that a hasty drawdown would jeopardize the U.S. drone campaign, as successful strikes rely on sound intelligence and logistical support provided by a strong U.S. presence.

Moving away from Afghanistan, Jenkins raises an important point in highlighting that subscribers to al-Qaeda’s ideology believe they are fighting a centuries-old war that will continue well beyond their own lives. This is fundamentally different from the perspective of Americans, who view war as having finite times, methods, and locales.

This raises a larger question: How long will the fight against al-Qaeda continue? In the current political climate, many in the U.S. point to Osama bin Laden’s death and the absence of an attack on U.S. soil—the Fort Hood shooting notwithstanding—as reasons for scaling back counterterrorism commitment, especially overseas. It’s been 10 years since 9/11, and already complacency could become our own worst enemy, a point on which Heritage and Jenkins agree.

The RAND report addresses this in warning against retreating to a pre-9/11 style of defensive isolationism. Such a strategy, Jenkins argues, “could increase the risk of a terrorist attack.” Moreover, he advises against formally declaring the war on terrorism over because such a declaration would alter the

legal framework for intelligence activities, including targeted strikes against al-Qaeda leaders.

Finally, Jenkins credits intelligence sharing and cooperation, both domestically and abroad, as the fundamental reason behind the prevention of further attacks on U.S. soil. He attributes the breaking down of institutional barriers that have led to increased sharing and dissemination of intelligence among federal, state, and local authorities as a key factor for progress in the struggle against terrorism at home, whether homegrown or not.

The Heritage Foundation’s Counterterrorism Task Force Report recommends improving interagency cooperation, maintaining essential tools such as the PATRIOT Act, and expanding efforts to coordinate with local communities in countering violent extremism. America cannot simply rely on drone strikes to keep us safe. As Jenkins suggests, contrary to what the Obama Administration may think, drone strikes are a tool, not a strategy in itself.

The report ends on a somber note: The fight against al-Qaeda could continue, in one form or another, for decades. Americans will have to live with the threat of terrorism for the foreseeable future, their subjective security constantly under fire from those determined to harm us.

Living in such times, according to Jenkins, requires “perpetual vigilance without succumbing to imagined fears.” Bin Laden is dead, al-Qaeda is wounded, but the threat remains as real as ever. For our part, American citizens must resist complacency and urge Washington to pursue the initiatives necessary to combat al-Qaeda’s influence at home and abroad.

**NOTE:** Download full RAND report from Newsletter’s website – “CBRNE/CT Papers” link

### **Desperate Measures: Somalia’s Al-Shabaab Joins Al-Qaeda**

Source: <http://www.jamestown.org>



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In what he described as “good news” that would “annoy the Crusaders,” al-Qaeda leader Shaykh Ayman al-Zawahiri announced the incorporation of Somalia’s al-Shabaab militants as an official new chapter of al-Qaeda on February 9. [1] Al-Shabaab leader Shaykh Ahmad Abdi Godane “Abu Zubayr” appeared in the 15-minute videotape to pledge his movement’s obedience to al-Zawahiri and promised to follow “the road of jihad and martyrdom, in the footsteps that our martyr Osama bin Laden has drawn for us.”

The merger may be the first step in an al-Qaeda effort to ensure the survival of the movement by expanding into the larger Islamic world through the creation of official al-Qaeda affiliates without the so far apparent and unstated requirement for an Arab leadership.

Faced with increasing military opposition and severe blows to its revenue streams, al-Shabaab faces the options of gradual annihilation in the field or scaling back operations to a more asymmetric model based on a diminished interest in holding territory and a greater use of terrorist tactics in an expanded zone of operations that would certainly include Somalia’s neighbors and possibly reach to the foreign

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supporters of Somalia’s Transitional Federal Government (TFG) and the African Union Mission in Somalia (AMISOM).

The announcement was remarkably ill-timed, coming only days ahead of an international conference in London in which many Western countries were already expected to announce some increase in their levels of military and economic support for the TFG and AMISOM. The al-Qaeda merger will almost inevitably result in greater levels of support than donor nations may have originally intended. The timing of the announcement seems inexplicable, unless al-Qaeda has started to believe its own propaganda efforts and actually believes such an announcement will send the TFG’s international supporters reeling in fear and dismay. The timing of the merger is also unlikely to meet with universal approval from Shabaab commanders and will exacerbate existing fissures within the movement’s leadership. TFG minister of information Abdikadir Husayn Muhammad suggested the unification could be a good thing for Somalia: “When Ayman al-Zawahiri described the merger between al-Shabaab and al-Qaeda as ‘good news,’ it is also ‘good news’ for us, and the time when al-Shabaab terror group used to disguise itself as a Somali Islamic organization has come to an end” (Jowhar.com, February 10).

The February 23 conference, hosted by the UK government, has been convened to address political instability and piracy in Somalia. There have been claims in Somalia, particularly from al-Shabaab, that the conference will discuss the “re-colonization” of Somalia, but TFG officials have urged Somalis to wait for the outcome of the meeting (Shabelle Media Network, February 11). According to al-Shabaab spokesman Shaykh Ali Mohamud Raage: “It’s the imperious nature of the Brits that sees them meddling in Islamic affairs in the hope of reviving a hopeless dream of a British Empire” (AFP, February 14). In a recent speech in Mogadishu, TFG president Shaykh Sharif Shaykh Ahmad insisted al-Qaeda were the colonialists and everyone in Somalia was required to do their part in “liberating” Somalia from their grasp (Shabelle Media Network, February 13). There is also speculation in Somalia that the African Union peacekeeping mission may be taken over by the UN following the London conference, possibly even in a mission led by Turkey (Dayniile Online, February 10).

Al-Shabaab ordered businesses and schools in areas under its control to close for a one-day celebration of their merger with al-Qaeda (Radio Simba [Mogadishu], February 13; Shabelle Media Network, February 13). At one such rally in Afgoye, Shaykh Ali Mohamud Raage promised “mujahideen fighters worldwide” that “the unification is a sign of the return of the Islamic caliphate worldwide” (AFP, February 13).

The existing cooperation between al-Qaeda and al-Shabaab over the last few years has yielded little for either group: al-Qaeda does not possess the weapons, funds or military assets to tip the conflict in al-Shabaab’s favor, while Somalia’s crumbling infrastructure, prevailing xenophobia and isolation provides a poor safe haven for terrorists operating in the global arena. Non-Somali jihadists generally find Somalia an unattractive theatre and unification is unlikely to change this. The merger will also endanger al-Shabaab’s diaspora fund-raisers, recruiters and volunteers who



## CBRNE-Terrorism Newsletter – Feb 2012

have had some success so far in meeting terrorism-related charges with claims they were inspired solely by nationalism and not the Salafist-inspired global jihad. U.S. drones operating out of Djibouti can be expected to increase surveillance missions and targeted attacks of al-Shabaab leaders within Somalia.

Kenya is scheduled to increase its Somali commitment from the existing 2,000 men deployed in southern Somalia to 4,700 men under AMISOM command in the Middle and Lower Juba regions of Somalia, though Kenyan authorities maintain the KDF must complete Operation Linda Nchi before Kenyan troops can join AMISOM (*East African* [Nairobi], February 14). Uganda and Burundi are also preparing to increase their deployment to a total of 12,000 troops from the current level of 9,500.

KDF spokesman Colonel Cyrus Oguna noted international anti-terrorist protocols can now be applied against al-Shabaab and claimed that al-Shabaab's revenue stream has been "totally disrupted" since the Kenyan incursion into southern Somalia: "In our own assessment, 75% of revenue collection of al-Shabaab has been disrupted" (KTN Television [Nairobi], February 11; AFP, February 11).

Somalia may now be faced by more al-Shabaab terrorist attacks such as the Mogadishu suicide bombing on February 8 that killed 16 civilians and severely wounded 30 more (al-Andalus Radio [Afgoye], February 8; *Africa Review* [Nairobi], February 8). Somali MP and former information minister Tahir Muhammad Gili speculated that the merger would result in al-Shabaab changing its tactics to "carry out more bombings and transfer battles outside Somalia, particularly to Somalia's neighboring countries, since those countries have troops inside Somalia at the moment. (al-Jazeera, February 12).

### Note:

1. "Glad Tidings: Announcement of Harakat al-Shabaab al-Mujahideen Officially Joining al-Qaeda," As-Sahab Global Media Front, shamikh1.info, February 9.



**Infrastructure Risk/Vulnerability Assessment Taking CARVER to the Next Level** (January 23-25, Las Vegas; April 9-11 and June 25-27, Arlington, VA) This course, using criticality, accessibility, recuperability, vulnerability, effect, and recognizability (CARVER)—an all-hazards assessment tool—emphasizes kinetic threats from small arms (active shooter) and improvised explosive devices; students will learn to identify threats and vulnerabilities of all sorts and apply risk management processes for incident planning. The course is designed for facility security, law enforcement, and emergency management professionals charged with planning for and implementing protective measures for personnel, facilities, and infrastructure. Students will conduct an actual on-scene preliminary security vulnerability assessment and develop and deliver a briefing of their findings. [View course website](#)

**Hospital Management of Chemical, Biological, Radiological, Nuclear & Explosive Incidents Course** (February 6-10; Aberdeen, MD) This postgraduate course for emergency planners, hospital administrators, clinicians, and emergency responders is presented by the U.S. Army Medical Research Institute of Chemical Defense, U.S. Army Medical Research Institute of Infectious Diseases, and Armed Forces Radiobiology Research Institute. Designed for civilian and military healthcare managers and clinicians, it offers state-of-the-art instruction that may save lives in a major incident involving weapons of mass destruction. This course was developed with hospital objectives—clinical and nonclinical—to help mitigate the existing gaps in support of hospital operations. [View course website](#)

**Behind the Scenes Seminar of Israel's Counter-Terrorism and Security Operations** (February 18-25; Israel) This seminar for law enforcement, military, and security professionals will provide an inside look at the security operations of some of Israel's most secured facilities and protected environments. Attendees will meet with top Israeli security and law enforcement officials and learn firsthand how Israel developed and maintains some of the world's best counter-terrorism and security systems. [View course website](#)

**Field Management of Chemical and Biological Casualties** (February 27–March 2, April 16-20; Aberdeen, MD) This course presented by the U.S. Army Medical Research Institute of Chemical Defense includes lab time, procedure practices, three field training exercises, and performing “Mega Codes” using the newest and most advanced simulator. The course is typically attended by medics, paramedics, Medical Service Corps and Chemical Corps personnel, firemen, physician assistants, even doctors and nurses. People from every military service as well as civilians are encouraged to attend. [View course website](#)

**Basic Hands-On CAMEO Training** (March 12-14; Boston) This course presents a comprehensive understanding of the Environmental Protection Agency's CAMEO suite of software, including how to access, store, and evaluate information critical for developing emergency plans. It teaches participants how to model chemical explosions, toxic effects, and radiant energy effects using ALOHA; search the updated and larger chemical database; store and retrieve critical facility and infrastructure data; and map a vicinity and understand the surrounding area using MARPLOT. [View course website](#)

**Late Phase Nuclear Accident Preparedness and Management** (March 12-15; Fontenay-aux-Roses, France) This course deals specifically with long-term consequences for the population. The main objective is to provide principles and practical advice for those involved in the preparedness for rehabilitation of living conditions in contaminated areas. The target audience is health physicists, technical and radiological advisors, staffs responsible for the overall organization and policy of rehabilitation, and civil protection officers, as well as all interested persons. The course offers a comprehensive overview of the various dimensions and challenges of rehabilitation, along with practical elements for implementing countermeasures for managing long-term contaminated rural and urban environments. [View course website](#)





# COUNTER TERROR EXPO

25-26 April 2012  
Olympia London  
www.counterterrorexpo.com

See what's  
new for 2012



## Clarion Defence and Security Exhibition Portfolio



[www.counterterrorexpo.co.uk/salesbrc](http://www.counterterrorexpo.co.uk/salesbrc)



Mitigating terror threats is a critical priority for civil, military and private sector stakeholders.

Counter Terror Expo is the premier international event delivering buyers and specifiers from across the world within Government, Military, Law Enforcement, Emergency Services, Private Sector and the Security Services. This market leading event hosts the most comprehensive showcase of technology, equipment and services designed to protect nations, borders, crowded places, national infrastructure, companies, assets and individuals from the threat of terrorist attack.

The event has been established to deliver a unique and secure environment in which a dedicated audience of security professionals and leading experts within the critically important counter-terror and crisis management arena can come together to buy products, share experience and gain knowledge.

One of the fastest growing events in the UK, the 2011 event featured 400 market leading exhibitors and delivered:

**7745** Attendees from  
**79** countries  
**7042** Visitors to the exhibition  
**637** Conference Delegates  
**66** Members of the press

## Visitor Demographics

### GEOGRAPHICAL



|                   |     |
|-------------------|-----|
| UK & Ireland      | 77% |
| West Europe       | 14% |
| East Europe       | 3%  |
| Middle East       | 3%  |
| Americas / Canada | 2%  |
| Rest of World     | 1%  |

### BY SECTOR



|   |     |
|---|-----|
| Private Sector Organisation / Corporate Company | 22% |
| Police & Law Enforcement                        | 13% |
| MOD / Intelligence Services / Armed Forces      | 11% |
| Building & Facilities Protection                | 10% |
| Emergency Response                              | 8%  |
| Training / Consultancy                          | 7%  |
| Systems Integrators / Installers                | 7%  |
| Transportation Security                         | 3%  |
| Critical National Infrastructure                | 3%  |
| Central, Regional & Local Government            | 2%  |
| Border Control / Customs & Immigration          | 1%  |
| Other   | 13% |

### DECISION MAKING POWER



|   |     |
|---|-----|
| Yes   | 44% |
| No  | 15% |
| If no, do you influence purchasing decisions? | 23% |
| Not Specified                                 | 18% |

**67%** of the attendees to CTX 2011 were a buyer or specifier of equipment and services

### ANNUAL SPEND



|                    |     |
|--------------------|-----|
| Over £1 Million    | 9%  |
| £100k - £1 Million | 14% |
| £10k - £100K       | 22% |
| £0K - £10K         | 21% |
| Not Specified      | 34% |

“ Spending on counter-terrorism will remain high, with over £2 billion set aside for counter-terrorism policing alone in the next four years. In several areas we will have to develop new capabilities in response to the technology and techniques that the terrorists are now deploying against us. ”

**THERESA MAY**  
 HOME SECRETARY  
 3 November 2010

## The 2011 attendees Primary Product Areas of Interest

\* multiple interest response

|  |      |
|--|------|
| CCTV and Covert Surveillance Equipment                             | 3904 |
| Access Control / Biometrics / ID Solutions                         | 3220 |
| Perimeter Security and Intrusion Detection                         | 2933 |
| Information and Communication Systems                              | 2748 |
| Location Monitoring and Tracking Systems                           | 2407 |
| Personal Protection Equipment / Clothing and Body Armour           | 2247 |
| Systems Integration  | 2071 |
| Screening & Scanning Equipment                                     | 2099 |
| Barriers / Bollards / Gates / Turnstiles                           | 2049 |
| Emergency Response Equipment                                       | 1945 |
| CBRNE Detection and Protection                                     | 1621 |
| Sighting and Image Recording and Processing                        | 1794 |
| Explosive Ordnance Disposal / Improvised Explosive Device Disposal | 1619 |
| Blast Containment  | 1540 |
| Human Resources and Training                                       | 1681 |
| Electro Optics   | 1384 |
| ANPR Software & Hardware   | 1327 |
| Database Management Solutions                                      | 285  |
| Seals / Tamper Evident   | 981  |
| Canine Services  | 612  |

\* Source: EAS Accredited

## Targeted Buyer & Specifier Delivery Campaigns

### UK VISITOR PROGRAMME FOR KEY CT AUDIENCE GROUPS:

- ✦ Police
- ✦ Fire Brigade
- ✦ MOD & Government Agencies
- ✦ Government & Private Sector

### INTERNATIONAL VISITOR PROGRAMME:

- ✦ Critical Infrastructure
- ✦ Corporate Organisations
- ✦ Paramilitary

### DSEI VISITOR PROGRAMMES FOR KEY CROSS OVER AUDIENCE GROUPS:

- ✦ Special Operations
- ✦ Homeland Security
- ✦ Civil Defence

In association with



### MEET THE VIP BUYER PROGRAMME:

- ✦ Face to Face Private Meetings
- ✦ Buyer & Seller matched based on requirement and capability
- ✦ Meet buyers with active purchasing requirements of up to £15 million

For more information on the CTX attendee profile and areas of interest call the team on + 44 (0) 208 542 9090 or email [info@niche-events.com](mailto:info@niche-events.com)

## New Product Features

### ARMoured VEHICLE ZONE

In association with

Armoured vehicles offer crucial protection to the services of Homeland Security, Counter Terrorism, Police Security, Force Protection and SWAT teams as well as protecting key personnel in more volatile areas of the world. Aimed specifically at fleet buyers and specifiers from Police, Military, Tactical, Special Ops and Private Security, this area will:

- ✦ Feature a dedicated Armoured Vehicle Zone within the Exhibition Hall
- ✦ Highlight Armoured Vehicle Solution Suppliers throughout the show
- ✦ Showcase Retro-fit, Up-armouring & Upgrade Solutions

### CCTV FOCUS

CCTV is critical in assessing whether a security alert is real, and is often vital in any post incident investigation, particularly of a terrorist nature. Designed to raise the profile of high-end CCTV and Surveillance solutions, and aimed specifically at end users as well as Integrators, the CCTV Focus within the show will feature:

- ✦ A dedicated CCTV Integrators Lounge on the show floor
- ✦ CCTV Workshop to debate IP, Storage, Video Analytics and more
- ✦ Plus an update from ONVIF's Chairman

### CBRN AND PROTECTIVE CLOTHING & EQUIPMENT SHOWCASE

High quality CBRN and PPE is often the difference between life and death, and in counter terror operations, success and failure. The showcase will specifically target Police, MoD, Private Security, Emergency Services, EOD and Hazmat Teams with:

- ✦ A Live Runway within the Exhibition Hall to show off the latest manufacturer ranges for 2012
- ✦ Set against a large video screen backdrop to allow buyers a better view of the products
- ✦ Narrated live by a Presenter to highlight each products unique benefits

### IEDD DEMONSTRATION THEATRE

Perhaps the most common and widely used weapons of the terrorist are Improvised Explosive Devices (IEDs). This feature was one of the most popular events for the 2011 show targeted specifically at EOD Regiments, Police Disposal, Fire, Military and Special Ops Teams, and for 2012 we are expanding and enhancing it to cover:

- ✦ ROV (Remote Operated Vehicle) Demonstrations
- ✦ NEW Ancillary Equipment Demonstration Theatre
- ✦ Active scenario based IED disposals before a live audience

### SMALL ARMS & LIGHT WEAPONS

In association with

Provide close-quarter protection for a myriad of tasks including high risk policing, counter terrorist response and resolving siege and hostage situations. Small arms and light weapons have increasing relevance to Tactical Ops, Police Firearm Units, SWAT, Private Security & Close Protection who will be targeted for the show by providing:

- ✦ On-Site Armoury
- ✦ The ability to display weapons on stands
- ✦ Increased number of weapons suppliers within the show

### ACCESS CONTROL FEATURE

Gaining access to a building or facility, especially critical areas within the facility, is sometimes all the terrorist needs to successfully carry out an attack. Securing these access points is therefore one of the highest priorities. Targeted at Integrators and End-Users the Access Control Feature will include:

- ✦ A wide range of manufacturer solutions
- ✦ Using a series of doors & access points buyers will get a first-hand walk-through experience
- ✦ A dedicated workshop examining the capabilities and vulnerabilities in securing key access points

## Why Exhibit?

### TARGETED EVENT

Meet hard to reach buyers and specifiers from the public and private counter terrorism arena who rarely attend generic events

### GLOBAL REACH

Attendees come from 79 countries

### NETWORKING

The complete buying chain attends: End users, systems integrators, installers, and manufacturers

### LAUNCH PLATFORM

Opportunity to launch new products through the exhibition, technology workshops, and live demonstrations

### BRAND AWARENESS

Receive increased exposure in the lead up to, during, and after the event through our extended marketing campaign and dedicated exhibitor promotions

### THOUGHT LEADERSHIP

Exhibiting alongside our high level conference and expert speakers provides you with the latest updates on regulations, legislation and procedures.

## Stand Packages

### SPACE ONLY £449 + VAT PER M2

Includes: floor space only, listing in the official event guide and website.

### SHELL SCHEME £499 + VAT PER M2

Includes: floor space, carpets, walls, name board, listing in the official event guide and website.



### ELITE PACKAGE £569 + VAT PER M2

Includes: floor space, carpets, walls, name board, furniture, literature rack, lights, power socket, listing in the official event guide and website.



## Exhibitor Profile

Counter Terror Expo 2012 will offer a forum for senior buyers and specifiers to see the very latest solutions available to assist in global anti terrorism and counter terrorism measures.

The exhibition will showcase a wide range of technologies and services from over 400 exhibitors.

Product areas covered in the exhibition include:

- ◆ Access Control
- ◆ ANPR Software & Hardware
- ◆ Armoured Vehicles
- ◆ Barriers / Bollards / Gates / Turnstiles
- ◆ Biometrics
- ◆ Blast Containment
- ◆ CBRN Detection and Protection
- ◆ CCTV / Covert Surveillance Systems
- ◆ Communication Systems
- ◆ Database Management Systems
- ◆ Electro Optics
- ◆ Emergency Response Equipment
- ◆ Explosive Detection
- ◆ R.O.V / E.O.D
- ◆ Information Management and Security Systems
- ◆ Location and Tracking Systems
- ◆ Medical and Evacuation Equipment
- ◆ Perimeter Security and Intrusion Detection
- ◆ Personal Equipment & Body Armour
- ◆ Screening and Scanning Equipment
- ◆ Seals / Tamper Evident Solutions
- ◆ Special Vehicles and Transportation
- ◆ Sighting and Image Recording and Processing
- ◆ Technical Clothing and Protection
- ◆ Training Services
- ◆ Weapons and Ammunition

## Contact Details

To discuss the event in further detail please feel free to contact:

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**Medical Management of Chemical and Biological Casualties** (March 18-23, May 6-11; Aberdeen, MD, and Fort Detrick, MD) This course, provided by the U.S. Army Medical Research Institute of Chemical Defense and the U.S. Army Medical Research Institute of Infectious Diseases, includes classroom training, laboratory work, patient diagnosis, treatment, and procedures, with patient triage and interview exercises. Crisis management skills are rehearsed in a mega-code environment with robotic mannequins. Practical field training is performed in protective gear. [View course website](#)

**Public workshop on chemical, biological, and radiological incidents** (January 25; London) This workshop organized by Project Practice (“preparedness and resilience against CBRN terrorism using integrated concepts and equipment”) will gather information regarding the needs, uncertainties, and vulnerabilities of members of the public in the event of a chemical, biological, or radiological incident in a public place. [View event website](#)

**Middle East Security Conference & Exhibition** (February 19-21; Dubai, United Arab Emirates) This conference hosted by the American Society for Industrial Security International will address a full spectrum of topics in security management, such as supply chain security, loss prevention, hotel security, intellectual property, maritime piracy, terrorism, executive protection, internal theft and fraud, competitive intelligence, brand protection, physical security, cyber-security, investigations, due diligence, and global business issues. [View event website](#)

**LNG Shipping Conference** (February 21-22; London) The theme of this conference for those involved in maritime shipment of liquefied natural gas or in emergency response is “Crisis Management: Protect Your Assets: Strategies to Identify, Manage and Maximise the Chance of Protecting Your Assets as a Result of a Maritime Crisis.” Among the topics are “Planning for a Maritime Emergency,” “Hazards Particular to LNG Vessels,” and piracy. [View event website](#)

**Center for Homeland Defense and Security Alumni Professional Exchange Continuing Education Conference** (February 21-23; Monterey, CA) At this conference sponsored by the Naval Postgraduate School and the Homeland Security Department, subject matter experts will explore current trends and their related impacts on homeland security organizations, policies, and practices. The theme of the conference is “Terrorism, Budgets and Disasters.” [View event website](#)

**CBRN-E Asia Pacific** (February 22-23; Singapore) This forum for chemical, biological, radiological, nuclear, and explosives professionals will include a practical exercise involving the Fukushima nuclear powerplant incident and a scenario planning exercise involving a bioterrorism attack on a city in Asia. It also will offer pre- and post-conference workshops. [View event website](#)



experiences. [View event website](#)

(February 26-29; Washington, DC) This American Society for Microbiology meeting is intended for scientists, physicians, public health researchers, and policy makers who need to be informed about the latest scientific developments. Professionals will present information, knowledge, techniques, and



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**Emergency Management Conference** (February 28-29; Wellington, New Zealand) The theme of the 2012 conference is “Our community, our response: Lessons identified from



Christchurch” (the 2011 earthquake). It will cover local and national perspectives on the response; buildings and earthquakes; managing welfare and social services locally; interagency coordination; city council planning; a utility perspective; and communicating with and managing the media. It also will offer classes on social media in emergency management response; media training for clear, concise messages during crisis; and situational awareness—making good decisions in times of emergency. [View event website](#)

(February 28–March 3; Baltimore) This conference and expo are produced by the *Journal of Emergency Medical Services*. The event will include plenary sessions, the JEMS Games, and pre-conference workshops. It will be co-located with the International Conference on Disaster & Terrorism Preparedness. [View event website](#)

**International Conference on Disaster & Terrorism Preparedness** (February 28–March 3; Baltimore) This conference will focus on planning, resources, and response needs for responders to natural and man-made disasters. It will be co-located with EMS Today. [View event website](#)

(March 6-7; Phoenix) The expo will cover people, terrorism, and contraband and will discuss what international, federal, state, and local agencies are buying in 2012. [View event website](#)

(March 7-8; Athens, Greece) this conference will bring together government officials from the United States, the European Union, the North Atlantic Treaty Organization, and Horn of Africa regional states; senior decision makers from the shipping industry; and suppliers of the latest products and technologies. Handpicked speakers and distinguished delegates will help all stakeholders in adopting a practical, comprehensive, sustainable strategy to address maritime security and best practices to counter piracy. [View event website](#)

**International Conference on Disaster and Emergency Management** (March 11-13; Pattaya, Thailand) This conference aims to bring together academic scientists,



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leading engineers, industry researchers, and scholar students to exchange and share their experiences and research results about all aspects of disaster and emergency management and to discuss the practical challenges encountered and the solutions adopted. [View event website](#)



**Joint CBRN Conference and Exhibition** (March 12-14; Baltimore) The Joint Chemical, Biological, Radiological, and Nuclear Conference and Exhibition will provide a forum for the exchange of CBRN defense information among warfighters, CBRN incident responders, technology developers, acquisition professionals, and the supporting industry. This exchange will focus on a better understanding of and increased responsiveness to CBRN defense users' needs. Selected speakers will discuss current issues and future direction. The exhibition will showcase the broad array of CBRN defense equipment and technologies, as well as the latest in training and logistics capabilities. The 2012 theme is "Beyond BRAC ... What's next in CBRN

defense?" [View event website](#)



**CBRNe South America** (March 13-14; Rio de Janeiro, Brazil) A host of expert speakers from outside the region will be joined by experts from Brazil, Chile, Colombia, Peru, and Argentina to discuss the all-hazards threat—chemical, biological, radiological, nuclear, narcotics, improvised explosive devices, and hazmat—now coming to Brazil as it hosts the International Federation of Association Football World Cup in 2014 and the Olympics in 2016. [View event website](#)

**National Bio-Threat Conference** (March 27-29; Denver) This conference, sponsored by the Defense Department, the Homeland Security Department, and the Environmental Protection Agency, will provide a forum for government, indus



The Centre for the Study of Terrorism and Political Violence (CSTPV), established in 1994 at the University of St. Andrews, is Europe's oldest centre for the study of political violence. CSTPV is dedicated to the study of the determinants, manifestations and consequences of terrorism and other forms of political violence. In doing so, it is committed to rigorous, evidence-based scientific analysis that is policy-relevant but not supporting any particular partisan policy. CSTPV's research and teaching are grounded in a belief in public service, global responsibility and the desire to contribute to the enhancement of human security.

16 February 2012

'Assessing the Emergency Response to Terrorism'



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One-Day Conference (9am – 4pm), Upper College Hall Speakers: Simon Lewis (British Red Cross), Dr Afzal Ashraf (St Andrews), Prof Malcolm Dando (University of Bradford), Sir David Omand (King's College London), Montine Walters (CBRNE World), Dr Anthony Richards (UEL).

To book a place at this conference, please see [here](#).

This conference will be followed by a memorial service held for Professor Paul Wilkinson CBE at 4.30pm in St Salvator's Chapel, The Quad, North Street.

### 15 March 2012

#### 'Terrorism, Violence, and International Hierarchy'

Public Lecture (5pm), Arts Lecture Theatre The Annual University of St Andrews Lecture on Terrorism and Political Violence Speaker: Prof David Lake (University of California, San Diego)

### 19 April 2012

#### 'Explaining Terrorism'

A Public Workshop focusing on the work of Prof Martha Crenshaw (Stanford University) (2 – 5.30 pm), Lower College Hall Speakers: Prof Martha Crenshaw (Stanford), [Prof Louise Richardson](#) (St Andrews), [Dr Tim Wilson](#) (St Andrews), [Dr Gilbert Ramsay](#) (St Andrews)

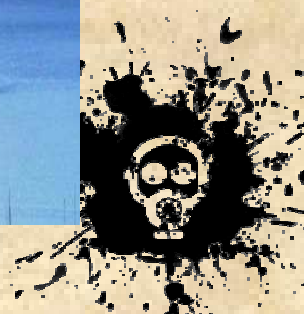
### 3 May 2012

#### 'Does Counter-Terrorism Work?'

Public Seminar (5pm), Arts Lecture Theatre  
Speaker: Dr Jacob Shapiro (Princeton University)

## CBMITS IX

In 18 years of meetings, the direction, goals, model and objectives for the CBMITS, although now much broader and more comprehensive, have remained the same. In CBR and anti-terrorism matters, this series remains at the forefront in science, medicine and technology and its "firsts" are legendary. The CBMITS provided the world community: the first in-depth analysis of industry and chemical warfare without chemical weapons, now known in part as Toxic Industrial Chemicals (TIC) and Toxic Industrial Materials (TIM), the very first comprehensive analysis of casualties and casualty care, and the short, mid and long term effects of massive CW use against the Iranian populace by Iraq, the first look at



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terrorism and its impact on CBW and the international community, both military and civilian; the first forum for pharmaceutical and medical stockpile issues at the international levels, and above all, the CBMTS was the very first to provide and still continues to provide a forum for communications, a venue for professionals in critical CBR disciplines from East, West, North and South.

SPIEZ LABORATORY, Applied Science & Analysis (ASA) and International Institute for Non-Proliferation Studies (IINPS) have partnered together so that the CBMTS returns to the original setting where this highly respected series began in 1994. Dr. Marc Cadisch, Director SPIEZ LABORATORY and his staff are hosting and co-sponsoring this 18th year anniversary meeting of the CBMTS. Dr.



Cadisch will open the CBMTS IX on Monday 07 May 2012. IINPS is newly formed with Peter Lejeune as chairman.

The CBMTS IX will explore the scientific, medical, operational and policy aspects of chemical, biological, radiological and nuclear (CBRN) warfare and terrorism. We will consider the effects of CBRN agents wrongly used, intentional or accidental, on the community and individuals, military and civilian, and on the infrastructure of government. CBMTS IX will emphasize CBRN detection, decontamination and treatment; incident response (including emergency, disaster and crisis management); and, nonproliferation (including arms control, disarmament, dual-use, etc.). The CBMTS IX venue has a physical limit of 130 participants – so please REGISTER EARLY.

### A. Objective

Bring together the professionals most concerned with the scientific, technical and policy aspects of problems associated with the CBRN and WMD threats.

### B. Symposium Model

To ensure the free flow of ideas, the CBMTS IX will continue with the CBMTS tradition of a relaxed shirt-sleeve environment, a first name basis in very short order, and as always a very enjoyable camaraderie between all participants. To encourage free discussions, attribution of any comments is permitted only with author/speaker consent.

### C. Who Should Attend?





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Industry, government and academic professionals with an interest in the CBRN threat, whether the threat is from war, terrorist actions, accidents or incidents, natural or man-made. These include defense professionals; toxicology, medical, public health and medical research professionals; local, regional and national laboratory representatives; first responders and Hazardous Materials (HAZMAT) specialists including emergency, crisis management and mitigation, and civil defense personnel; defense and protection industry scientists and engineers; senior policy makers; and specialists in computer risk modeling and planning and training.

### D. Proposed topic areas

- CBRN detection, decontamination and treatment;
- Incident response (including emergency, disaster and crisis management); and,
- Nonproliferation (including arms control, disarmament, dual-use, security matters, etc.).

### E. Format

Podium presentations: 20 minutes, with an additional five minutes for questions and discussion.

Poster presentations require a three-slide presentation (title, author, topic).  
Poster size is 1.00m (W) x 1.40m (H).

### F. Abstract Submission

Abstracts will be 250 words or less, not including title, authors, organizations, and contact information. Full instructions are at [www.cbmts.org/abstracts](http://www.cbmts.org/abstracts).

Each participant with accepted abstract is encouraged to supply a passport photo and a short biography of max. 75 words. This will be inserted into the Technical Program and Proceedings along with the Abstract and Paper.

### G. Registration

Participation is based on abstract acceptance and/or geographical representation. Registration requires abstract submission. Once the International Science Review Committee has reviewed abstracts, registrations and abstracts acceptance will be confirmed.

For those participants requesting financial support, registrations and abstracts must be received by 15 December 2011.

Registrations must be sent by email (subject: CBMTS IX) or by fax to the CBMTS IX Team.

### H. Dates

- 1 September 2011 – Registration opens
- 15 December 2011 – Abstracts for participants seeking support due
- 15 January 2012 – All abstracts due
- 20 March 2012 – Early registration fees end
- 15 April 2012 – All papers due
- 07 May 2012 – CBMTS IX begins

### I. Contact Information

The CBMTS web address: [www.cbmts.org](http://www.cbmts.org)

**Basic Hands-On CAMEO Training** (March 12-14; Boston) This course presents a comprehensive understanding of the Environmental Protection Agency's CAMEO suite of software, including how to access, store, and evaluate information critical for developing emergency plans. It teaches participants how to model chemical explosions, toxic effects, and radiant energy effects using ALOHA; search the updated and larger chemical database; store and retrieve critical facility and infrastructure data; and map a vicinity and understand the surrounding area using MARPLOT. [View course website](#)



## CBRNE-Terrorism Newsletter – Feb 2012

**Late Phase Nuclear Accident Preparedness and Management** (March 12-15; Fontenay-aux-Roses, France) This course deals specifically with long-term consequences for the population. The main objective is to provide principles and practical advice for those involved in the preparedness for rehabilitation of living conditions in contaminated areas. The target audience is health physicists, technical and radiological advisors, staffs responsible for the overall organization and policy of rehabilitation, and civil protection officers, as well as all interested persons. The course offers a comprehensive overview of the various dimensions and challenges of rehabilitation, along with practical elements for implementing countermeasures for managing long-term contaminated rural and urban environments. [View course website](#)

## Diploma in Crises, Emergency and Disaster Management

Info: Edith Tsouri [edith@isds.co.il](mailto:edith@isds.co.il)



TEL AVIV UNIVERSITY

### DIPLOMA IN

### Crises, Emergency, and Disaster Management



| MON<br>March 19   | TUE<br>March 20  | WED<br>March 21  | THU<br>March 22  | FRI<br>March 23   | SAT<br>March 24  |
|---|--|--|--|---|--|
| <b>Opening Session:</b><br>Prof. Uzi Rabi<br>08:30-09:00  | <b>Crises, Emergency, and Disasters:</b><br><b>The human factor</b><br>Dr. Zohar Rubenstein<br>Founder Interdisciplinary for Managing Disaster and Emergency Programs<br><br>09:00-10:30   | <b>Leadership and Decision Making during emergency times</b><br>Col (Ret) Gilead Shaenhar<br>Senior Advisor to the Commander of the IDF Home Front Command during Operation Iraqi Freedom<br><br>09:00-10:30 | <b>Special Presentations:</b><br>Ephraim Halevy<br>Former Head of Mossad<br><br>09:00 – 09:45<br><br><b>Case Study:</b><br><b>Entebbe</b><br>Gen (Ret) Amiram Levin<br>10:00-10:45 | <b>Transportation Crisis Definition, handling situations, case studies</b><br><br><b>Case Study: Ben Gurion Airport</b><br><br>Doron Itzchakov<br><br>09:00-10:30 | <b>TRIP North</b><br><br>Gilboa Region: Border with Jenin<br><br>Discussion led by Col Ron Shafran<br><br>Kibbutz Experience |
| <b>Intro to Disaster and Emergency Management</b><br>Dr. Kobi Peleg<br>Head of the Israeli National Center for Trauma and Emergency Medicine Research<br>09:00-10:30                                |  |  |  |   |  |
| <b>Crises, Disaster, and Emergency Management</b><br>Definition and Terminology<br><br>11:00-12:30  | <b>Israel's methodology to respond to International and Domestic Crisis</b><br><b>Case Study: Haiti's Crisis</b><br>Gen Yair Golan<br>Head of Home Front Command<br>11:00-12:30  | <b>Risk communication planning and solutions.</b><br><b>Case: Operation Iraqi Freedom</b><br>Col (Ret) Gilead Shaenhar<br><br>11:00-12:30  | <b>Introduction to Biochemical Disasters Handling CBRN Emergencies, Threats, and Terror</b><br><br>Dudu Friedman<br>11:00-12:30  | <b>Closing Remarks:</b><br>Prof. Uzi Rabi<br>Leo Gleser<br><br><b>Diploma Ceremony</b><br><br>11:00-12:30   | Visit Golan Heights  |
| <b>Lunch (12:30-13:30)</b>  | <b>Lunch (12:30-13:30)</b>   | <b>Lunch (12:30-13:30)</b>   | <b>Lunch (12:30-13:30)</b>   |   |  |
| <b>Emergency and Disaster Response assessment and planning</b><br>Col (Ret) Gilead Shaenhar<br>Senior Advisor to the Commander of the IDF Home Front Command Operation Iraqi Freedom<br>13:30-15:00 | <b>Medical emergency and disaster preparedness</b><br><b>Case Study: preparing the Israeli Hospitals for all types of disasters</b><br>Col (Ret) Boaz Tadmor MD<br>Director Beilinson Medical Ctr<br>Senior Advisor for Emergency and Disaster Situations<br>13:30-15:00 | <b>Management of Emergency &amp; Crisis Dilemmas</b><br>Case Study: Carmel Fire<br>Shahar Ayalon<br>Former Deputy of the Israeli Police<br><br>13:30-15:00   | <b>National Security</b><br>Dr. Dan Shifan<br>Head of National Security Research Center<br>Haifa University<br><br>13:30-15:00   | <b>GRAND ASADO CELEBRATION</b><br><br>Moshav Nir Zvi  |  |
| <b>War Threats: Crisis</b><br>General (Ret) Uzi Dayan<br><br>15:15-16:45  | <b>Crime Control</b><br>Bernard Rosenthal<br>International Unit for Crime Investigation<br>15:15-16:45   | <b>Psychological aspects of stress and trauma</b><br>Prof. Avi Bleich<br>Head of Psychiatry Department in IDF<br>15:15-16:45   | <b>Bioterrorism // Fighting Bio terrorism</b><br>Prof. Danni Cohen<br>Former Head of Epidemiology IDF<br>15:15-16:45   |   |  |
| <b>Crisis Management Technology for Safe Cities</b><br>Case Study: Netivot<br>Erez Tidhar<br>17:00 – 18:00  | <b>MTACS</b><br>Intro to Tactical Medicine<br>17:00 – 18:00  | <b>Special Presentation: Life Locator Technology</b><br>17:00 – 18:00  | <b>Special Presentation: Technology for Crisis</b><br>17:00 – 18:00  |   |  |





Book by 31st January and **Save S\$350**

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# CBRNe Asia 2012

## Conference, Exhibition and Exercise

3<sup>rd</sup> - 7<sup>th</sup> September 2012

Plaza Athénée Bangkok, A Royal Meridien Hotel, Thailand



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**N**etworking - 5 days of activities which include workshops, conference, 3 days of exhibition, Royal Thai Governemnt table top exercise day and the Thai National CBRN exercise make this the premier CBRNe event for networking in the world

**E**steemed military and government speakers from Asia, Europe, USA, South America and the Middle East ensure that you will hear timely case studies from those at the forefront of current operations

CBRNe Asia 2012 is Asia's first and largest 5 day CBRNe event, exhibition and exercise and will bring together experts, end users, policymakers, industry and procurement staff.

The event will be held in conjunction with the annual Thai National CBRN Exercise, which will focus on a number of chemical and radiological scenarios, and will be fully accessible to all conference delegates.

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# CBRNeAsia.com



## **CBRNE-Terrorism Newsletter – Feb 2012**

**Disaster Response National Training Workshop** (March 14-15; Dalton, GA) This workshop sponsored by the Presbyterian Church in North America helps churches and their members prepare for disasters so they can respond effectively. It will include general sessions, discussion groups, and hands-on learning opportunities, covering how the gospel fits within the context of disasters, coordination of volunteers and work projects, how to set up a disaster trailer, working with community agencies, and more. Anyone interested in disaster response is welcome. [View event website](#)

**Disaster Preparedness Academy** (March 14-17; North Haven, MN) This conference sponsored by the United Methodist Committee on Relief plans to offer novice, training, and experienced class tracks, with courses open to all, as well as classes for coordinators and a special course on working with children in disaster. [View course website](#)

**Medical Management of Chemical and Biological Casualties** (March 18-23, May 6-11; Aberdeen, MD, and Fort Detrick, MD) This course, provided by the U.S. Army Medical Research Institute of Chemical Defense and the U.S. Army Medical Research Institute of Infectious Diseases, includes classroom training, laboratory work, patient diagnosis, treatment, and procedures, with patient triage and interview exercises. Crisis management skills are rehearsed in a mega-code environment with robotic mannequins. Practical field training is performed in protective gear. [View course website](#)

**Emergency Preparedness Academy** (March 27; St. Louis) This training by the American Red Cross for emergency and continuity managers from large and small businesses, government agencies, universities, and health care and faith-based organizations, as well as concerned individuals, will provide information on emergency preparedness planning, preparedness, response, and recovery. Besides three general sessions and three breakout sessions, it will offer the chance to visit with exhibitors. [View course website](#)

**Effective Communication** (April 4-5; Johnston, IA) This course presented by the Iowa Homeland Security and Emergency Management Agency is designed to improve all phases of communications—a necessary and vital part of the job—for every emergency manager, planner, and responder. [View course website](#)

**Emergency Management Conference** (February 28-29; Wellington, New Zealand) The theme of the 2012 conference is “Our community, our response: Lessons identified from Christchurch” (the 2011 earthquake). It will cover local and national perspectives on the response; buildings and earthquakes; managing welfare and social services locally; interagency coordination; city council planning; a utility perspective; and communicating with and managing the media. It also will offer classes on social media in emergency management response; media training for clear, concise messages during crisis; and situational awareness—making good decisions in times of emergency. [View event website](#)

**National Bio-Threat Conference** (March 27-29; Denver) This conference, sponsored by the Defense Department, the Homeland Security Department, and the Environmental Protection Agency, will provide a forum for government, industry, academia, and first responders to address critical issues in environmental sampling, bio-detection, clinical diagnostics, and biosurveillance, with presentations, discussions, and exhibits to identify gaps and define next steps for sampling and detection. [View event website](#)

**Virginia Emergency Management Symposium** (March 28-30; Short Pump, VA) The theme of this symposium, sponsored by the Virginia Emergency Management Association and the Virginia Department of Emergency Management, is “Don’t Fail the Miss



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DELIVERING MARITIME SECURITY IN GLOBAL PARTNERSHIP:  
Identify Cooperative Strategies for Future Maritime Security Engagement.

The [Maritime Security Conference 2012](#) will take place at the Westin Nova Scotian Hotel, Halifax, Nova Scotia, Canada, from 4 to 7 June, 2012. Building on the success of the last year, the conference will be co-sponsored by the Combined Joint Operations from the Sea Centre of Excellence (CJOS COE) and the Centre of Excellence for Operations in Confined and Shallow Waters (COE CSW).

We are pleased to announce the participation of the Centre of Foreign Policy Studies (CFPS) at Dalhousie University in Halifax. The CFPS will provide academic support to the conference and set the scene from North American perspective based on the findings of the Maritime Security Workshop that was held 27-29 October 2011 in Halifax, Nova Scotia, Canada.

MCS 2012 is the foremost annual event for civilian and military professionals who are involved in maritime safety and security affairs around the world. In a collaborative setting, this prestigious group discusses solutions to challenging security issues that will contribute to a more effective Global Network for Maritime Security Cooperation.

**This year, the conference will develop around four objectives:**

- a. Enhance National Maritime Security Governance: Develop a comprehensive, whole of government approach
- b. Enhance Interregional Maritime Security Governance: Develop the way ahead for international maritime security cooperation and awareness
- c. Improve Capabilities - Data Fusion Systems - Design and Standards: Design effective, interoperable and affordable maritime security cooperation and awareness infrastructure
- d. Identify Future Maritime Security Challenges: Provide a projection for maritime security challenges and how to engage them.



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## CBRNE-Terrorism Newsletter – Feb 2012

### European Intelligence and Security Informatics Conference (EISIC) 2012

August 22-24, 2012

Odense, Denmark

The Premier European Conference on Counterterrorism and Criminology



Intelligence and Security Informatics (ISI) research is an interdisciplinary research field involving academic researchers in information technologies, computer science, public policy, bioinformatics, medical informatics, and social and behavior studies as well as local, state, and federal law enforcement and intelligence experts, and information technology industry consultants and practitioners to support counterterrorism and homeland security missions of anticipation, interdiction, prevention, preparedness and response to terrorist acts. The annual IEEE International ISI Conference series (<http://www.isiconference.org>) was started in 2003.

The [EISIC 2012](#) is held jointly with

- The International Symposium on Open Source Intelligence and Web Mining 2012 (OSINT-WM 2012).
- The Workshop on Innovation in Border Control, *organised by Frontex, the Joint Research Centre of the European Commission and the University of Arizona.*
- The Workshop on Bio-inspired and Computational Intelligence Systems in Cyber Security (BCISCS 2012), *organized by Cairo University and Arab Academy for Science, Technology & Maritime Transport*

### [NDIA Joint CBRN Conference & Exhibition 2012](#)

Event Date(s): Monday, March 12, 2012 to Wednesday, March 14, 2012

Location: Baltimore, MD

The 2012 Joint CBRN (chemical, biological, radiological, nuclear) Conference and Exhibition will provide a forum for the exchange of CBRN defense information among warfighters, CBRN incident responders, technology developers, acquisition professionals, and the industries supporting them. This exchange will focus on a better understanding of and increased responsiveness to CBRN defense users' needs.

### [2012 SMILE Conference](#)

Event Date(s): Sunday, March 25, 2012 to Wednesday, March 28, 2012

Location: Vancouver, British Columbia, Canada

The Social Media the Internet and Law Enforcement (SMILE) conference will arm attendees with all of the technical hands-on skills and the practical knowledge needed to enter the social media world with confidence. The SMILE Conference has pioneered the adoption of social media by law-enforcement agencies throughout the world for public outreach, crime prevention, and forensics capabilities.

### [EMS Care 2012](#)

Event Date(s): Thursday, April 12, 2012 to Sunday, April 15, 2012

Location: Ocean City, MD



## CBRNE-Terrorism Newsletter – Feb 2012

EMS Care just keeps getting better! This year's program brings some new and exciting nationally recognized speakers, as well as some of the favorite presenters from years past. Two full days of pre-conference workshop offerings, hot speakers on hot topics, and an enticing resort setting make this an inviting conference for all emergency services providers.

### [FDIC 2012](#)

Event Date(s): Monday, April 16, 2012 to Saturday, April 21, 2012

Location: Indianapolis, IN

FDIC (Fire Department Instructors Conference) 2012 is the premier conference and exhibition for the fire industry. With the largest gathering of decision-makers, trainers, and experts – as well as manufacturers and suppliers – FDIC serves as a spearhead for networking, relationship development, and future revenue growth.



## CBRN & Critical Infrastructure

Wednesday, April 4th 2012

The protection of critical infrastructures and critical activities is now widely recognized as an acute security challenge for States and their citizens. The broad range of CBRN hazards, from man-made, natural, accidental to deliberate, and the wide spectrum of risks, from small disturbance to high damage such as significant contamination with extreme consequences, makes the CBRN threat both insidious and penalizing for the operators in charge of those critical infrastructures. Facing the risks and challenges of CBRN, the HCFDC has deemed useful to match operators' needs (in particular those submitted to national and/or European legislations) with scientific expertise, as well as with expected outcomes of public policies regarding national security.

The [Conference](#) will be held in both French and English, therefore increasing its accessibility to international speakers. It will aim at better defining the nature of CBRN threats, along with addressing potential effective strategies to prevent, mitigate and treat the consequences of CBRN threats. To a larger extent, the objective of HCFDC conference on "CBRN and critical infrastructure" is to foster knowledge and experience sharing among participants for whom this strategic issue might still be new. During the conference, the HCFDC will organize an exhibition displaying some of the technological solutions provided by Defence & CBRN industries.



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