

May 2015

# CBRNE NEWSLETTER TERRORISM

*E-Journal for CBRNE & CT First Responders*



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# CBRNE-Terrorism Newsletter – 2015©

May 2015

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## Editorial

Brig Gen (ret'd) Ioannis Galatas, MD, MA, MC

*Editor-in-Chief*  
CBRNE-Terrorism Newsletter

*Dear Colleagues,*

End of May and most people in civilized parts of the world are dreaming of exotic destinations where they are planning to spend their vacations while in other parts of same world others drawn for a brighter future or some clean water or just for a day without the terrifying noise of an incoming bomb, artillery or suicide detonation.

Mass illegal immigration wake up Europeans but because it was not a regular wake up they decided to take military actions against North Africa's traffickers. But only North Africa's situation is under control (e.g. Greek-Turkish borders). Conclusion: Do not take important decisions very early in the morning! It is bad for the health (of others).

Situation in Syria gradually deteriorates and IS is now in control of half the country. Currently we care most for the ancient treasures of Palmyra than the devastating status of millions of refugees sardined in camps with not a shed of home in their minds and life. Because we are civilized people and we care for our historical roots more than life itself. Again strange military and political games confuse the overall environment and reveals that cancer of planning for them without them! Big titles in the news when a jihadist did not find happiness when joined the IS and wants to return home; but no titles when orphans are gathering like flies in Middle East (or Africa).

In the Balkans we have the problem of Greece and its new left government that is currently trying to learn how to play the famous geopolitical chess that had no idea of existing. It is the first time that Greece seems to start thinking the same way that other countries were thinking for decades. Country comes first; alliances and partnerships come second. Our fellow Europeans do not like it very much and are constantly trying to sabotage any effort by habit and without any substantial reasoning. They have the right to speak with others for their benefit but not Greece. Speaking with Russia? Bad boys! Speaking with China? Bad boys! Joining the BRICS? Bad, bad boys! Trying to bring oil and gas into surface? Bad boys! And always with the threat behind civilized smiles – either you will be with us (the West) or you will be our enemies! As if their Greek friends ever gain – not given – something from the West! Of course we do not entirely blame them for our inability to do things in the right way. But when you provide the roots of modern civilization (history) or when you count thousands of deaths in two World Wars you have to take something back in exchange! Even if you handle things in an amateuristic way! Even if it is only the pride of a nation! Friends do not support dark forces dreaming of "Big Nations" just to stop any plans and deals for energy independancy or better prices for its own people in despair! Friends do not support atheism in order to brake imaginary religious bows in favor of other bows that they do not even like – but suit their needs and pockets. Study deeper the recent incidents in FYROM supported by a neighboring country to realize more than what is written in controlled mass media.

In May, Editor had the chance to travel to Indonesia (Bali) in order to participate as speaker at the World Military Medicine Conference. It was a good experience but even better was the interest and comments made after the lecture entitled "Are military (and public) hospitals prepared to deal with mass CBRNE casualties". Participants realized how big the problem is and that they have to confront it in a realistic and effective way. They also realized that lack of gov money is not always the problem that held hospitals unprepared. With reasonable amount of money many things can be done and provide certain defense capabilities in case of a real CRE

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incident in urban environment. The threat remains real but unfortunately the mindset of high officials stubbornly remains the same – "it will not happen to us!" I only hope that presentation given shake some in the audience and perhaps now they will reconsider and do things. Time will show!

The second lecture on "CBRNE Forensics" also attracted interest and proved how little we know about this part of investigation and how small our experience is. Keep in mind that CBRNE people do not know much regarding crime scene investigations and that CSI people are not very much familiar with CBRNE techniques, norms and doctrines. New technologies (robotics) can greatly enhance our capabilities – especially in Hot Zone operations. This is a very interesting field of specialization and we are looking for some striking solutions in the near future (EU Horizon 2020 project).

Since I started with some lines on summer vacations, it is important to thank (once more) all frontline CBRNE-CT responders for their endless efforts to preserve our right for a brake from what is happening around us and to state that CBRNE-Terrorism Newsletter will always be by their side strengthening their updated knowledge on new developments and innovations that will make their life safer and our world a better place to live in.

We wish you all a happy Summer time and may logic prevail!

**The Editor-in-Chief**



## Selling visas could help put an end to human smuggling trade

Source: <http://www.homelandsecuritynewswire.com/dr20150424-selling-visas-could-help-put-an-end-to-human-smuggling-trade>

March 24 – Researchers say that using a new visa-selling economic model could help governments eradicate human smuggling. The policy, designed by economists at City University London and the Toulouse School of Economics, involves pricing criminals out of the market while raising funds for improving traditional border controls.

A City release reports that researchers Dr. Alice Mesnard and Dr. Emmanuelle Auriol say existing schemes are not working and believe new policies are needed to control illegal migration and stop people paying criminals to smuggle them overseas.

The academics' work has appeared in media across Europe, including the *Guardian*, *Le Monde*, France 24, and *Repubblica*, following recent tragedies in the Mediterranean.

Mesnard, Reader in Economics at City, said: "Human smuggling is booming and has become an urgent concern for governments and civil societies across the world.

"The death toll from trafficking is increasing rapidly and estimates suggest criminals are making billions of dollars a year from the practice. It is clear that traditional methods of repression are incapable of stopping immigrants entering countries illegally, including the U.K. and Europe. Our research looks at the root of the problem and, taking into account the other options available, we believe that our novel policy is the only viable solution.

"Human smuggling carries an exceptionally high risk for migrants, puts money into the hands of criminal gangs and hinders governments' abilities to regulate the flow of people across their borders. If the aim is to control migration flows and eliminate the smugglers, a better idea is to combine policies of repression with visa sales at prices that push smugglers out of the market."

Mesnard and Auriol, a Professor of Economics at Toulouse School of Economics, say that

putting visas up for sale at the same price as the fee of smugglers would increase the total number of migrants — but argue their two-pronged method could limit this rise.

**"Indeed, smugglers will respond by decreasing their prices and compete with authorities by attracting poorer would-be migrants, who might prefer to pay a lower price for the crossing, albeit with higher risks,"** explained Mesnard.

**"This will occur unless the price of visas is set so low that smugglers cannot compete any longer by proposing lower fees without making losses.** In this case, human smuggling would be eliminated but, at the same time, the flows of migrants entering the country legally would increase."

The researchers argue, however, that a rise in migrant numbers could be limited by using funds from the visa sales to improve border and internal controls, which would increase the costs to smugglers and decrease expected gains from illegal migration.

Mesnard explained this would be the only way to allow authorities to push smugglers out of the market without dropping the visa price too low.

"Since smugglers' operating costs increase with enforcement of border controls, one way to limit an increase in migration flows, which would happen as a result of the new policy, is to force their costs up at the same time as pricing the visas," she said.

"Another way is to enforce internal repression, such as sanctions against employers of illegal migrants and deportations. Our findings show that, accompanied by reinforced repression, the selling of visas does not need to be at a low price in order to push smugglers out of the market.

"Of course, not everyone will be able to afford a visa and we believe this will restrict migration flows."

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— Read more in *Emmanuelle Auriol and Alice Mesnard, Sale of Visas: A Smuggler's Final Song? Department of Economics, Discussion Paper Series no. 13/06, City University London (September 2013)*

[http://www.city.ac.uk/data/assets/pdf/file/0016/202345/13\\_06\\_Auriol\\_Mesnard.pdf](http://www.city.ac.uk/data/assets/pdf/file/0016/202345/13_06_Auriol_Mesnard.pdf)



**EDITOR'S COMMENT:** It seems that economists are a bigger problem than the problems they attempt to solve! OK we sell the visas for 100 Euros – then WHAT? Can we absorb the immigrants? Are EU member states like UK and France willing to provide the living environment for these people? Why don't we solve the problems at their homelands? Do we really want to do that???

## Backgrounder: The Armenian Genocide

Compiled by Middle East Forum web editor and research fellow Gary C. Gambill.

Source: <http://www.meforum.org/5199/backgrounder-armenian-genocide>



Visitors lay flowers at the Tsitsernakaberd Armenian Genocide Memorial in Yerevan, Armenia on April 21, 2015. (AFP)

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Apr 25 – On the one-hundredth anniversary of the start of deportations culminating in the deaths of up to 1.5 million Armenian Christian subjects of the Ottoman Empire, the question of whether these atrocities constitute "genocide" remains hotly debated. Turkish officials maintain that the deaths were normal wartime excesses, in the midst of a world war when the empire was fighting for its life. On the other side, the descendants of Armenian victims and survivors throughout the world maintain that the mass killings were a planned, deliberate campaign of extermination. The weight of academic scholarship has tilted decidedly toward the latter view.

For an informed introduction to the debate, we recommend the following selection of articles by Middle East Forum staff, fellows, and outside specialists writing for our flagship publication, *Middle East Quarterly* (MEQ).

### The Debate

Genocide is defined under the 1948 Convention on the Prevention and Punishment of Genocide as "acts committed with intent to destroy, in whole or in part, a national, ethnical, racial or religious group, as such." The terminology is sufficiently broad (e.g. "with intent" suggests ethnic cleansing need not be the primary motivation; "in part" allows for

localized atrocities to qualify; "as such" renders the preceding term "destroy" more flexible) that the near-complete elimination of the Armenian Christian community in eastern Anatolia at the hands of surrounding Sunni Muslim Turks is itself strong *prima facie* evidence of genocide. Applicability of the term to the Armenian cases hinges on the



questions of premeditation and intent.

Opponents of the genocide designation maintain that wartime conditions and the



**Opponents of Armenian Genocide Recognition**

Many scholars maintain that there is no clear smoking gun indicating that the mass killings of Armenians in the Anatolian Peninsula were orchestrated by the Ottoman government. Ottoman records and other documentary evidence provide "at most a shaky foundation from which to claim, let alone conclude, that the deaths of Armenians were premeditated," according to **Guenter Lewy**, professor emeritus at the University of Massachusetts Amherst ("Revisiting the Armenian Genocide," *MEQ*, Fall 2005).

As **Yücel Güçlü**, first counselor at the Turkish Embassy in Washington, D.C., emphasizes ("Will Untapped Ottoman Archives Reshape the Armenian Debate?" *MEQ*, Winter 2009), contemporaneous British and other non-Turkish sources are "spotty and intertwined with wartime politics." **Edward J. Erickson**, author of numerous books on the Ottoman military, examines official military histories of the modern Turkish Republic to refute German sources indicating Ottoman Army Special Organization units were redeployed from the Caucasian front to orchestrate the extermination of Armenians. ("Armenian Massacres: New Records Undercut Old Blame," *MEQ*, Summer 2006)

credible threat of Armenian collaboration with allied forces (Russian forces were on the offensive to the north, British forces landed at Gallipoli the day after the first deportations began) were the principal motivating factor behind the violence. Thus, political scientist **Michael M. Gunter** concludes that "the application of the term 'genocide' to these events is inappropriate because the Turkish actions were neither unilateral nor premeditated." ("What Is Genocide? The Armenian Case," *MEQ*, Winter 2013)

**Proponents of Armenian Genocide Recognition**

However, growing numbers of scholars have come to challenge these views.

If the genocidal intentions underlying the Armenian tragedy are not explicitly spelled out in surviving Ottoman records, they are unmistakably clear when one considers the common belief system of Ottoman Turks and historical circumstances, maintains *MEQ* editor and MEF senior research fellow **Efraim Karsh** in "Ankara's Unacknowledged Genocide" (*MEQ*, Winter 2013).

According to Karsh, there was no military justification for depopulating eastern Anatolia of "virtually unarmed" Armenians.





Even the Nazis refrained from deporting the native populations of countries they occupied, with the notable exception of Jews, for whom



they bore a special genocidal hatred. Ottoman rulers were nevertheless convinced that the reduction of non-Turkish minorities in Anatolia was critical to the defense of the empire, notes Karsh, citing the recent work of Turkish-American scholar Taner Akçam.

Historian **Diana Muir Appelbaum** argues in "Islamic Supremacy Alive and Well in Ankara" (*MEQ*, Winter 2013) that Ottoman intentions to "annihilate the Armenians as a nation and extinguish their language, faith, and culture" are evident in the Islamo-Turkish supremacist ideology of the ruling Ottoman elite and in the broader context of Ottoman-Armenian history. She discusses the Ottoman Empire's preceding settlement of some 850,000 Muslims in Armenian majority areas in the late nineteenth century and the killing of an estimated 80,000-300,000 Armenians between 1894 and 1896.

**Implications**

While the applicability of a single word to events that transpired a century ago may seem like a minor semantic matter, the debate has real world implications.

International apathy toward what Germany's ambassador in Constantinople called a "clean sweep of internal enemies" by Ottoman leaders in 1915 likely encouraged the Nazis to do likewise a quarter of a century later, argues

**Hannibal Travis**, a law professor at Florida International University, in "Did the Armenian Genocide Inspire Hitler?" (*MEQ*, Winter 2013).

"Who speaks today of the extermination of the Armenians?" Adolf Hitler is reported to have said a week before invading Poland.

Today, growing numbers of governments, international NGOs, and legislatures are speaking about an Armenian "genocide" for the first time.

Yet Turkey's refusal to acknowledge *any* systemic wrongdoing on the part of the Ottoman Empire in destroying the majority of its Armenian subjects has intensified. This owes much to the ruling AKP's

ideological commitment to neo-Ottomanism, explored at great length by MEF fellow **Burak Bekdil**. As Bekdil notes, President Recep Tayyip Erdoğan's efforts to pressure foreign governments to withhold recognition of the Armenian genocide have failed miserably.

Inside Turkey, the AKP's denialism about the Armenian genocide contributes to an atmosphere of intolerance to Christians. In "Turkey's Christians under Siege" (*MEQ*, Spring 2011), **John Eibner**, CEO of Christian Solidarity International-USA, examines small-scale discriminative violence against Turkish Christians in recent years, such as the January 2007 murder of Armenian Christian journalist Hrant Dink, a prominent campaigner against Turkish genocide denialism. Nearly a century after the genocide, according to Eibner, "widely-accepted negative stereotypes of Christians as dangerous, subversive aliens within society" are alive and well.

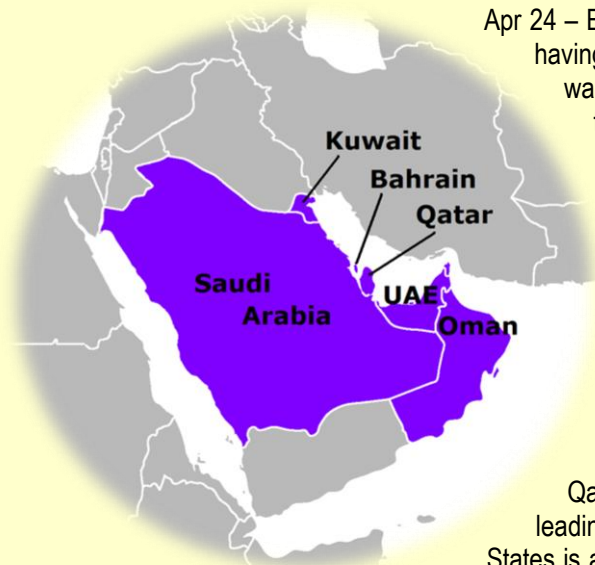
Consequently, several MEF fellows have advocated for U.S. recognition of the Armenian genocide, notably Judith Friedman Rosen Fellow **Raymond Ibrahim** ("Obama Breaks Promise on 100th Anniversary of Armenian Genocide," April 24) and Robert J. and Abby B. Levine Fellow **Tarek Fatah** ("Muslims Must Admit Armenian Genocide," April 21).



## Gulf of Secrets: The Evolution of Gulf State Intelligence Services

By Austin Long

Source: <http://www.isn.ethz.ch/Digital-Library/Articles/Detail/?lng=en&id=190058>



Apr 24 – Both Libya and Yemen are being torn apart by conflicts that, despite having domestic roots, have essentially become proxy wars. While proxy wars are hardly a new phenomenon in the Middle East, the identity of the protagonists in these two wars underscores a major change in the region. The Gulf States (principally Qatar, the United Arab Emirates, and Saudi Arabia) have moved from supporting players, principally providing financial backing for proxy wars led by others, to protagonists taking the lead in covert and sometimes overt action.

In Yemen, it is Saudi Arabia along with the United Arab Emirates (UAE), Qatar, and other allies that have taken the lead in supporting the beleaguered government. On the other side is Iran, which is supporting the Shiite minority Houthis who are in turn allied with elements of the former president of Yemen. In Libya, Qatar has been the primary supporter of Islamists, with the UAE the leading supporter of the anti-Islamist faction. In both wars the United States is at best a supporting player if not a bystander. Even in regional wars where the United States is playing a larger role, such as Syria and Iraq, the Gulf States have a significant, and sometimes independent, role.

This movement of the Gulf States from writing checks, as they did in the 1980s to support the mujahedin, to orchestrating campaigns has been both a cause and an effect of significant evolution in their intelligence services. These services have become more professional in response to a changing security environment, particularly changes since 2001. The increasing capability of these services has then enabled more aggressive covert action, which in some cases has then led to overt military intervention.

### Three shifts

There have been three major interconnected shifts in the strategic landscape that have driven the evolution of Gulf State intelligence services. First, the threat of terrorism in the Gulf States, while not new, became more acute after 2001. In Saudi Arabia, for example, a series of attacks in 2003 and 2004 sped up efforts to streamline the General Investigation Service, the domestic intelligence agency (almost universally known even to English speakers as the Mabahith), while also increasing the service's budget. Similar attacks, or attempted attacks, increased the emphasis on domestic intelligence and security in the UAE and Qatar as well.

In addition, U.S. pressure on the Gulf States to curtail support to terrorist organizations from citizens of Gulf States gave some additional impetus to improvement in foreign intelligence. Gulf States began to curtail (though not eliminate) both donations and use of Gulf financial hubs to support terrorists, requiring

increasing intelligence capabilities to track money flows. Further, as domestic intelligence services squeezed terrorists out, foreign intelligence services were required to conduct cross-border intelligence and operations.

Cross-border operations have often been conducted in conjunction with Gulf militaries, particularly their special operations components. Indeed, the boundary between intelligence service and military external operations is much less stark than in many Western democracies. While rivalries between different organizations are common, cooperation improved in many Gulf States after 2001.

The second major shift in the strategic landscape is U.S. engagement in the broader Middle East. Like terrorism, U.S. engagement has been a factor in the Gulf for decades. Yet after 2001 U.S. engagement first increased substantially following the invasions in Iraq and Afghanistan



and then began to decrease substantially as troops left the region. This shift in U.S. presence in the Gulf combined with U.S. outreach to Iran, relative passivity in Syria, and announced reorientation of U.S. foreign policy to focus more on Asia has caused many in the Gulf States to reevaluate heavy reliance on the United States to achieve their security objectives.

The Arab Spring also contributed to this reevaluation. It underscored the potential for unrest and revolution and the perception (true or not) in the Gulf that the U.S. commitment to regional allies was ambivalent. It also created new opportunities for influence as U.S. influence waned and previously stable regimes fell, some of which was overt (such as aid to Egypt or military support to Bahrain) while some was undoubtedly covert and conducted by intelligence services.

At the same time, close ties to the United States are still seen as important and intelligence cooperation is one of the main assets that Gulf allies provide to the United States. The result has been a drive for improved unilateral Gulf State capabilities that can nonetheless also demonstrate value to the United States. This appears to have fueled the professionalization and expansion of Gulf intelligence services.

One of the most notable examples of this phenomenon is Qatar. In 2004 Qatar retooled its intelligence services, merging them into a single agency – Qatar State Security (QSS). QSS has subsequently become an increasingly professional organization, exemplified by its ‘no nonsense’ leader Brigadier General Ghanem al-Kubaisi. The general also exemplifies the duality of Qatari intelligence. On the one hand he made headlines for helping arrange the release of an American journalist from Syrian militants, allegedly without paying a ransom, demonstrating the utility of QSS to U.S. interests. At the same time QSS has, according to press reports, orchestrated a network providing arms and finances to Syrian rebels, many of whom are viewed with deep suspicion in the West.

The final reason for the evolution of Gulf intelligence services is Iran, which grew in regional influence after U.S. invasions eliminated hostile regimes in Iraq and Afghanistan. Iran’s own intelligence services

also grew more powerful in this period. This was particularly true of the Iranian Revolutionary Guards Qods Force responsible for proxy warfare, which the Iranians waged against the United States in Iraq and to a lesser extent Afghanistan. The cyber-attack on Saudi ARAMCO in 2012, reportedly conducted by Iran, further underscored the need for Gulf State technical intelligence capability. Confronted by the rising intelligence collection and covert action capabilities of Iran, the Gulf States were propelled to develop countermeasures.

Yet despite a shared enemy in Iran, the Gulf States are also rivals with one another. The major faultline at present appears to be over the Muslim Brotherhood and other Islamists. Qatar has long sought to embrace, and even co-opt, such groups. In contrast, many of the other Gulf States, particularly the UAE, view Islamists like the Brotherhood with skepticism if not outright hostility. Thus while the Gulf States are broadly in agreement in supporting opposition to the Houthis in Yemen and Iranian ally Bashar al-Assad in Syria, they support opposite sides of the war in Libya. The intelligence services provide not only a means to cooperate but also to compete—but quietly and in the shadows, rather than through overt military posturing.

**The rise of the UAE**

No Gulf State better exemplifies both the effects of the regional strategic shifts and the growing professionalism of intelligence services than the UAE. The UAE’s federal level intelligence service, the State Security Department (SSD), has made significant progress in absorbing new information technology capabilities. At the same time, under the leadership of Lieutenant General Hamid al-Shamsi, the SSD has shifted from a focus that was almost exclusively domestic to one that looks beyond the UAE’s borders.

The UAE’s Special Operations Command, though not an intelligence service, is alleged to provide “muscle” to the SSD for covert action when required. British special operations forces are alleged to have a similar arrangement with the United Kingdom’s Secret Intelligence Service. UAE special operations forces are regarded as some of



the best in the region, having deployed a small contingent to Afghanistan for years in support of the American-led coalition. With excellent air support available from the UAE's modern fighter-bombers and helicopter gunships, UAE special operations are reported to have been very successful in covert operations against Islamists in Libya. In addition to these federal level organizations, the Emirate of Dubai maintains its own domestic intelligence service, the Dubai Security Service (DSS).

The UAE has developed and deployed these assets to address all three strategic shifts in the region. The intelligence services, relying heavily on a variety of technical means, have become adept at countering terrorism and foreign intelligence activity. This was demonstrated vividly following the assassination of Mahmoud Al-Mabhouh in Dubai in 2010. The UAE's intelligence services quickly connected video surveillance to false passports and credits cards ultimately alleged to link the killers to Israel's intelligence service. The UAE has also used its intelligence services to support a closer relationship to the United States, supporting its ally not only in

Afghanistan but in most other regional conflicts apart from the 2003 invasion of Iraq. Yet the intelligence services are also a hedge against any potential U.S. withdrawal from the region and, as in Libya, can be used to pursue unilateral objectives. Finally, the intelligence services provide a defense against subversion and proxy warfare that some in the UAE fear Iran might undertake.

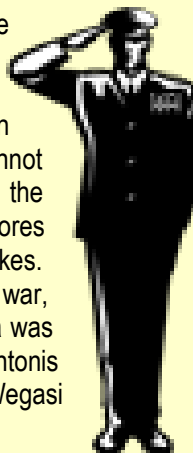
War in the Gulf, barring a major escalation over Iran's nuclear program, is likely to remain a 'twilight war,' conducted via proxies, supported in some cases by airpower and special operations. This model served the United States well in the invasion of Afghanistan in 2001, leading to rapid success. The evolution of their intelligence services and supporting military capabilities now enables the Gulf States (and Iran) to pursue similar campaigns, both in coalitions and unilaterally. Yet the United States found consolidating peace in Afghanistan after using this model extraordinarily challenging. The Gulf States may soon be learning similar lessons in Libya, Yemen, and elsewhere.

*Austin Long is an assistant professor of International and Public Affairs at Columbia University. He previously worked as an associate political scientist for the RAND Corporation, serving in Iraq as an analyst and advisor to the Multinational Force Iraq and the U.S. military.*

**Migrant boat crisis: the story of the Greek hero on the beach**

Source: <http://www.theguardian.com/world/2015/apr/25/migrant-boat-crisis-the-sergeant-who-did-his-duty-towards-people-struggling-for-their-lives>

It was an image that came to symbolise desperation and valour: the desperation of those who will take on the sea – and the men who ferry human cargo across it – to flee the ills that cannot keep them in their own countries. And the valour of those on Europe's southern shores who rush to save them when tragedy strikes. Last week on the island of Rhodes, war, repression, dictatorship in distant Eritrea was far from the mind of army sergeant Antonis Deligiorgis. The world inhabited by Wegasi



Nebiat, a 24-year-old Eritrean in the cabin of a yacht sailing towards the isle, was still far away.

At 8am on Monday there was nothing that indicated the two would meet. Stationed in Rhodes, the burly soldier accompanied his wife, Theodora, on the school run. "Then we thought we'd grab a coffee," he told the *Observer* in an exclusive interview recounting what would soon ensue. "We stopped by a cafe on the seafront."



Deligiorgis had his back to the sea when the vessel carrying Nebiat struck the jagged rocks fishermen on Rhodes grow up learning to avoid. Within seconds the rickety boat packed with Syrians and Eritreans was listing. The odyssey that had originated six hours earlier at

10:15 I had taken off my shirt and was in the water.”

Deligiorgis brought 20 of the 93 migrants to shore singlehandedly. “At first I wore my shoes but soon had to take them off,” he said, speaking by telephone from Rhodes. “The



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the Turkish port of Marmaris – where thousands of Europe-bound migrants are now said to be amassed – was about to end in the strong currents off Zefyros Beach.

For Nebiat, whose journey to Europe began in early March – her parents paid \$10,000 for a voyage that would see her walk, bus and fly her way to “freedom” – the reef was her first contact with the continent she had prayed to reach. Soon she was in the water clinging to a rubber buoy.

“The boat disintegrated in a matter of minutes,” the father-of-two recalled. “It was as if it was made of paper. By the time I left the café at 10 past 10, a lot of people had rushed to the scene. The coastguard was there, a Super Puma [helicopter] was in the air, the ambulance brigade had come, fishermen had gathered in their caiques. Without really giving it a second’s thought, I did what I had to do. By

water was full of oil from the boat and was very bitter and the rocks were slippery and very sharp. I cut myself quite badly on my hands and feet, but all I could think of was saving those poor people.”

In the chaos of the rescue, the 34-year-old cannot remember if he saved three or four men, or three or four children, or five or six women: “What I do remember was seeing a man who was around 40 die. He was flailing about, he couldn’t breathe, he was choking, and though I tried was impossible to reach. Anyone who could was hanging on to the wreckage.”

Deligiorgis says he was helped by the survival skills and techniques learned in the army: “But the waves were so big, so relentless. They kept coming and coming.” He had been in the water for about 20



minutes when he saw Nebiat gripping the buoy. “She was having great problems breathing,” he said. “There were some guys from the coastguard around me who had jumped in with all their clothes on. I was having trouble lifting her out of the sea. They helped and then, instinctively, I put her over my shoulder.”

On Friday it emerged that he had also rescued a woman who gave birth to a healthy baby boy in Rhodes general hospital. In a sign of her gratitude, the Eritrean, who did not want to be identified, told nurses she would name her son after him. While Deligiorgis’s heroism has

Europe will often make as the humanitarian disaster unfolding on the continent’s outer reaches becomes ever more real. Last week close to 2,000 migrants were reported entering the country with the vast majority coming through its far-flung Aegean isles. Most were said to be Syrian students and other professionals able to afford passage to the west.

“As long as there are crises in their own countries and desperation and despair, they will look to Europe,” said Giorgos Tsaropoulos, who heads the United Nations



raised the spirits of a nation grappling with its worst economic crisis in modern times, he is far from alone. All week there have been stories of acts of kindness, great and small, by islanders who rushed to help the emigrés. One woman stripped her own child to swaddle a Syrian baby, hundreds rushed to donate food and clothes.

“They are souls, like us,” said Babis Manias, a fisherman, breaking down as he recalled saving a child.

“We couldn’t believe it at first. We thought it was a tourist boat, what with all the hotels along the beach. I’ve never seen anything like it, the terror that can haunt a human’s eyes.”

The incident has highlighted the extraordinary sacrifice people on the frontline of Fortress

refugee mission in Athens. “And as long as there are no legal alternatives they will take these great risks to get here.”

Like other passengers, Nebiat, who would spend most of the week in hospital being treated for suspected pneumonia, has no desire to stay in Greece. Sweden is her goal. And on Thursday she boarded a ferry bound for Piraeus, the continuation of a journey that began in the Eritrean capital of Asmara, took her to Sudan and from there to Turkey travelling on a fake passport. “I am lucky,” she said as she was reunited with those who made the journey with her. “Very lucky to be alive.”

Deligiorgis falls silent at the mention of heroism. There was



nothing brave, he says, about fulfilling his duty “as a human, as a man”. But recounting the moment he plucked the Eritrean from the sea,

he admits the memory will linger. “I will never forget her face,” he says. “Ever.”

## British Politicians Woo 'Muslim Vote' With Pledges

Source: <http://www.clarionproject.org/analysis/britains-muslims-poised-be-swing-vote-uk-elections>



The leader of Britain's Labour Party, Ed Miliband, has vowed, if he becomes the next prime minister in general elections on May 7, to outlaw "Islamophobia."

The move — which one observer has called "utterly frightening" because of its implications for free speech in Britain — is part of an effort by Miliband to pander to Muslim voters in a race that he has described as "the tightest general election for a generation."

**With the ruling Conservatives and the opposition Labour running neck and neck in the polls just days before voters cast their ballots, British Muslims — who voted overwhelmingly for Labour in the 2010 general election — could indeed determine who will be the next prime minister.**

In an interview with *The Muslim News*, Miliband said:

"We are going to make it [Islamophobia] an aggravated crime. We are going to make sure it is marked on people's records with the police to make sure they root out Islamophobia as a hate crime.

"We are going to change the law on this so we make it absolutely clear of our abhorrence of hate crime and Islamophobia. It will be the first

time that the police will record Islamophobic attacks right across the country."

Miliband appears to be trying to reopen a long-running debate in Britain over so-called religious hatred. Between 2001 and 2005, the then-Labour government, led by Prime Minister Tony Blair, made two attempts to amend Part 3 of the Public Order Act 1986, to extend existing provisions on incitement to racial hatred to cover incitement to religious hatred.

Those efforts ran into opposition from critics who said the measures were too far-reaching and threatened the freedom of speech. At the time, critics argued that the scope of the Labour government's definition of "religious hatred" was so draconian that it would have made any criticism of Islam a crime.

In January 2006, the House of Lords approved the Racial and Religious Hatred Act 2006, after amending the text so that the law would be limited to banning only "threatening" words and not those that are merely abusive or insulting. Lawmakers also said that the offense would require the *intention* — not just the *possibility* — of stirring up religious hatred. They added that proselytizing, discussion, criticism, abuse and ridicule of



religion, belief or religious practice would not be an offense.

Miliband's renewed promise to make "Islamophobia" (a term he has not defined) an "aggravated crime" may signal an attempt to turn the 2006 Act — which already stipulates a maximum penalty of seven years in prison for stirring up religious hatred — into a full-blown Muslim blasphemy law.

According to British commentator Leo McKinstry, "Miliband's proposal goes against the entire tradition of Western democracy, which holds that people should be punished only for their deeds, not their opinions." In an opinion article, he added:

"In Miliband's Britain, it will become impossible to criticise any aspect of Islamic culture, whether it be the spread of the burka or the establishment of Sharia courts or the construction of colossal new mosques. We already live in a society where Mohammed is now the most popular boy's name and where a child born in Birmingham is more likely to be a Muslim than a Christian. If he wins, Miliband will ensure that the accelerating Islamification of our country will go unchallenged."

McKinstry says Miliband is currying favor with Britain's three million-strong Muslim community to "prop up Labour's urban vote."

Muslims are emerging as a key voting bloc in British politics and are already poised to determine the outcome of local elections in many parts of the country, according to a report by the Muslim Council of Britain, an umbrella group.

The report shows that Britain's Muslim population is overwhelmingly young and will exert increasing political influence as time goes on. The median age of the Muslim population in Britain is 25 years, compared to the overall population's median age of 40 years.

An extrapolation of the available data indicates that one million British Muslims aged 18 and above will be eligible to vote in this year's election. According to one study, Muslims could determine the outcome of up to 25% of the 573 Parliamentary seats in England and Wales.

Others say that although Britain's Muslim community is growing, it is also ethnically diverse and unlikely to vote as a single group. One analyst has argued that the potential for Muslim influence in this year's election "will

remain unrealized because the Muslim vote is not organized in any meaningful way on a national level."

A study produced by Theos, a London-based religious think tank, found that although Muslims consistently vote Labour, they do so based on class and economic considerations, not out of religious motives.

Indeed, a poll conducted by the BBC on April 17 found that nearly one-quarter of "Asian" voters still do not know which party they will support at the general election. Some of those interviewed by the BBC said that economic issues would determine whom they vote for.

In any event, Muslim influence in the 2015 vote will be largely determined by Muslim voter turnout, which has been notoriously low in past elections: Only 47% of British Muslims were estimated to have voted in 2010.

Since then, several grassroots campaigns have been established to encourage British Muslims to go to the polls in 2015, including Get Out & Vote, Muslim Vote and Operation Black Vote. Another group, YouElect, states:

"A staggering 53% of British Muslims did not vote in the 2010 General Election, such a high figure of Muslim non-voters indicates that many Muslims feel ignored by politicians and disillusioned by the political process.

"With the rise of Islamophobic rhetoric in politics and an ever increasing amount of anti-terror legislation which specifically targets Muslims, it is now more important than ever that Muslims use the vote to send a message to politicians that their attitudes and policies must change.

"YouElect wants to get the message across that there is something you can do about the issues you care about. We have launched a new campaign using the hashtag #SortItOut, which calls on Muslims to use the political process to address the issues that concern them most.

"With 100,000 new young Muslims eligible to vote this year and 26 parliamentary constituencies with a Muslim population of over 20%, the Muslim community has a very real opportunity to make an impact on British politics."

Not all Muslims agree. The British-born Islamist preacher Anjem Choudary is actively discouraging Muslims from voting.





In a stream of Twitter messages using the #StayMuslimDontVote hashtag, Choudary has argued that voting is a "sin" against Islam because Allah is "the only legislator." He has also said that Muslims who vote or run for public office are "apostates." Other British Islamists are following Choudary's lead. Bright yellow posters claiming that democracy "violates the right of Allah" have been spotted in Cardiff, the capital of Wales,

and Leicester, as part of a grassroots campaign called #DontVote4ManMadeLaw.

**One such poster stated:**

"Democracy is a system whereby man violates the right of Allah and decides what is permissible or impermissible for mankind, based solely on their whims and desires.

"Islam is the only real, working solution for the UK. It is a comprehensive system of governance where the laws of Allah are implemented and justice is observed."

*Soeren Kern is a Senior Fellow at the New York-based Gatestone Institute. He is also Senior Fellow for European Politics at the Madrid-based Grupo de Estudios Estratégicos / Strategic Studies Group.*

**Milan (Italy) EXPO 2015 riots**



**EDITOR'S COMMENT:** If this is the case with just an "Expo" I cannot imagine what the reaction of the Brazilian people would be before or during the Rio2016 Olympic Games...

**The Rise and Fall of a Modern 'Devshirme' in Erdogan's Turkey**

By Burak Bekdil

Source: <http://www.meforum.org/5210/turkey-modern-devshirme>

Last October, Etyen Mahcupyan, a leading Turkish Armenian intellectual, "liberal" writer and columnist, was appointed as "chief advisor" to Turkey's Prime Minister, Ahmet Davutoglu. At first glance, this was good news in a country where Islamists privately adhere to the old Ottoman *millet* system, in which non-Muslims were treated as second-class (if not third-class) citizens.

In reality, Mahcupyan was a reincarnation of the Ottoman "**devshirme**" system, in which the Ottoman state machinery produced several non-Muslim converts who enjoyed a place in the higher echelons of the palace bureaucracy, and the finer things of life, because their pragmatism earned them



excellent relations with the ruling Muslim elite.



In a December interview with Turkey's leading daily, *Hurriyet*, Mahcupyan said, "Whatever has been a [political] asset for Turkey's Armenian community (they number around 60,000) is an asset for the Jewish community too. But... there is Israel... As long as the psychology of the Israel issue continues to influence politics in Turkey and relations between the two countries do not normalize..." The line, which Mahcupyan shyly did not finish, probably would have gone on like this: "Turkey's Jews will keep on paying the price."

Mahcupyan admitted that if Turkey's Jews felt alienated, it was the government's responsibility to do something about that.

What more? "I have lived through this personally for the past 60 years," he explained. "Among Turkey's non-Muslim minorities, including Jews and Armenians, there is an opinion about humiliating Muslims." As Mahcupyan's statement is not true, it therefore just seems a way to justify Islamists' intimidation of Jews.

Next, Mahcupyan argued, "Both Jews and Armenians are better-educated [than Muslim Turks] and more open to the West. And this brings in a feeling of superiority complex." In this view, daily attacks on Turkey's Jews and other non-Muslims happen because Jews and Armenians humiliate Muslims -- they are better-educated than Muslims and hence their superiority complex. The charge is, at best, silly.

Only a few months later, Mahcupyan would learn how wrong he was about the Islamist

supremacists in Ankara and their inherent intolerance to liberal thinking.

Mahcupyan recently commented on Pope Francis's remarks on April 12, in which the Pope described 1915 as "the first genocide of the 20th century," and said that the Vatican had "thrown off a 100-year-old psychological burden."

If, Mahcupyan said, accepting that what happened in Bosnia and Africa were genocides, "it is impossible not to call what happened to Armenians in 1915 genocide, too."

It was probably the first time in Turkish history that a senior government official recognized the Armenian genocide. Once again, at first glance, that was good news in a country where outright denial has been the persistent official policy. But it seems Turkey was not quite as liberal as Mahcupyan had thought.

Immediately after his remarks became public, EU Minister Volkan Bozkir expressed unease, saying that "Mahcupyan's description was not appropriate for his title of adviser." But that was not the only price Mahcupyan would have to pay.

A few days after his remarks on genocide, Mahcupyan "retired" as chief adviser to Prime Minister Davutoglu -- after only about six months in the job.

Officially, Mahcupyan had retired in March after turning 65, the mandatory retirement age for civil servants. But it was an open secret in Ankara that his departure came simply because Turkey's Islamists were not quite the liberals he had claimed they were.

The "Mahcupyan affair" has a message to Turkey's dwindling non-Muslim minorities: Just like an Ottoman *devshirme*, a non-Muslim can rise and become a darling of today's neo-Ottoman Turks. He can win hearts and minds in important offices in Ankara -- and a bright career. But to maintain his fortunes he must remain loyal to the official Islamist line, both in deed and rhetoric. Just one unpleasant utterance would suffice to end a *devshirme*'s career in government service.



That is the kind of collective psychology into which Turkey's ruling Islamists force non-Muslims: either become a collaborator, or...

There is another Turkish Armenian columnist who looks more seasoned than Mahcupyan in his *devshirme* career. Markar Esayan, a writer for a fiercely pro-government daily, recently said in reference to President Recep Tayyip Erdogan's 2014 statement about the Armenian victims of 1915: "[Erdogan's] message of condolences illustrates how we have achieved the Ottoman spirit in line with this century and its democratic practice. Furthermore, the practices in the last 13 years [of the Justice

and Development Party's rule] have positively influenced our [Armenian] community and non-Muslims."

Apparently Esayan is happy with Turkey's neo-Ottomans and their Islamist rule, including their rigid policies of genocide-denial, which he claims have done good to Turkey's Armenians and other non-Muslim citizens. Etyen Mahcupyan may have been punished, but Markar Esayan is being rewarded for his loyalty: he has been selected to run for parliament on the ticket of Prime Minister Davutoglu's party!

*Burak Bekdil, based in Ankara, is a columnist for the Turkish daily Hürriyet and a fellow at the Middle East Forum.*

## The Future of Research and Development in the UK's Security and Intelligence Sector

Source: <https://www.rusi.org/publications/occasionalpapers/ref:O552EA5CB4F0F3/>



Research and development continues to be a national priority for the UK government as part of its long-term strategy to increase innovation and skills within technology and knowledge-based industries. Yet at a time when technological advantage is critical within the security and intelligence spheres, sufficient and targeted investment in appropriate R&D programmes is far from guaranteed.

Ahead of the 2015 Strategic Defence and Security Review, the aim of this paper is to explore whether there are ways to improve engagement between government and investors operating in this sector, in order to ensure that R&D investment is strengthened, priority capabilities are understood by investors, and critical capabilities are sustained.

[Download the report here](#)

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## Anonymous Homeless Person's 18-Cent Donation

Source: <http://ktla.com/2015/04/30/north-carolina-church-leaders-touched-by-anonymous-homeless-persons-18-cent-donation/>

Apr 30 – Members of the First United Methodist Church in Charlotte, North Carolina, found an 18-cent donation after Sunday's service by a homeless anonymous giver, a note said. (Credit: Courtesy Patrick S. Hamrick)

"Please don't be mad," the back of the envelope said. "I don't have much. I'm homeless."

The offering envelope left at the First United Methodist Church in Charlotte, North Carolina, on Sunday had no name — just the note.

It contained a dime, a nickel and three pennies.

Far from being mad, church leaders were touched by the gesture. They don't know who left it, but they believe it came from one of the "homeless neighbors" who attended the service after a free breakfast.



Every Sunday before the service, church volunteers serve breakfast to about 150 homeless neighbors, said Patrick S. Hamrick, pastor of finance and administration at the church. Afterward, some stay for one of the church's two Sunday services. Members of the finance committee first saw it when they went to collect the offerings after the service.

Hamrick snapped a photo and shared it on the church's Facebook page.

"When I saw the note, I just wanted to assure

the giver that every gift and every giver is important. I felt deep gratitude because it is likely that this individual reached into his or her pocket and gave everything," Hamrick said.

Hamrick said the church has a "long-standing commitment to social justice" and is committed to addressing hunger and homelessness in the neighborhood, which is situated between the city's financial district and higher poverty areas. He said that 18 cents will make its way back through the ministries of the church to support the weekly coffee and breakfast for its homeless neighbors this Sunday.



**EDITOR'S COMMENT:** This is the essence of humanity and a shed of hope in our ugly world. A good reminder to all of us that we do not appreciate what we have and take no opportunities to do better things towards progress, equality, prosperity and global peace. Just imagine what he or she might become if given a chance and an ounce of care and love!





## Brazil World Cup stadiums finally completed... 10 months after Germany lifted the trophy

Source: <http://www.mirror.co.uk/sport/football/news/brazil-world-cup-stadiums-finally-5621809>



Two of the stadiums built for the purpose of hosting the Brazil World Cup have finally been completed. Work has been finished on **Sao Paulo's Itaquerao Stadium** (photo below) as well as the **Arena da Baixada in Curitiba** (photo above).

Both stadiums hosted matches at the World Cup, with construction work put on hold for the duration of the tournament.



The Itaquerao Stadium was the venue used for England's decisive defeat to Uruguay. Brazil expended approximately £2bn on building new stadia and redeveloping existing arenas for the showpiece event.

on tackling the country's poverty issues.

The amount spent led to unsavory protests in the poorer areas of Brazil with some people claiming that the money should've been spent

Brazil's government had hoped that the stadiums would provide the country with a lasting legacy.

The Itaquerao Stadium is Corinthians' home stadium, while Atletico Paranaense play their home matches at the Arena da Baixada.

**EDITOR'S COMMENT:** If this is the case will Brazil be ready for the 2016 Olympic Games. There is a lot of silence on the Internet on many preparedness related issues and this is quite disturbing!



## Do guns kill people? What the numbers say

Source: <http://www.terrorismwatch.org/2015/05/do-guns-kill-people-what-numbers-say.html>

The data, taken from [GunPolicy.org](http://GunPolicy.org), shows that United States has the highest number of civilian firearms with a whopping 101.1 firearms

firearm regulations whereas the US has 'permissive' firearm regulation. To classify firearm regulation as restrictive or



22

per 100 population.

To put this in perspective, the second and third highest number of civilian firearms per 100 population are reported for Serbia at 58.2 and Yemen at 54.8.

Guns, however, don't kill people, as the cliché goes. And the numbers seem to confirm this.

The highest number of gun deaths have been reported in Turkey (165 gun deaths per 100,000 population) where the civilian ownership of firearms stands at 12.5 per 100 people. The second and third highest number of gun deaths per 100,000 population are reported in Colombia (53) and Venezuela (36) respectively.

In comparison, the US, despite its 101.05 firearms per 100 population, reports 10 gun deaths per 100,000 population.

It is also interesting to note that Turkey, Colombia and Venezuela have 'restrictive'

permissive, GunPolicy.org uses the definition given by Newton and Zimrig in *Firearms and Violence American Life*. It is as follows:

### *Permissive Firearm Regulation*

Before an applicant can be denied a licence or a firearm owner's identification card, the administering agency must show that the applicant is a member of one of the prohibited groups. (Prohibited groups include minors, felons, persons of unsound mind, etc.)

### *Restrictive Firearm Regulation:*

The applicant must give a sufficient reason to have a gun rather than the licensing authority being required to show a reason for denying the request.

In India where firearm regulations are restrictive, the estimated number of civilian firearms is 3.36 guns per 100 population. Gun death is estimated at 1 per



100,000 population per year -- among the ten lowest gun death rates in the world.



### Juncker: EU Military Forces? All Squawk, No Bite

Source: <http://www.defensenews.com/story/defense/2015/05/07/juncker-eu-military-forces-all-squawk-no-bite/70951584/>

May 07 - **European Commission head Jean-Claude Juncker called again Thursday for the bloc to build an army, saying a flock of hens posed more of a threat than its current military capabilities.**

"A bunch of chickens looks like a combat formation compared to the foreign and security policy of the European Union," Juncker told a Brussels forum in typically lively language.

"I always call for a European army as a long-term project. It is not something you can build from scratch tomorrow morning," he said.

Juncker has consistently backed the idea that the EU's 28 member nations — all no strangers to a bloody, war-torn past — should accept a military arm, a need highlighted by the Ukraine crisis.

"A common army among the Europeans would convey to Russia that we are serious about defending the values of the European Union," he told Germany's Welt am Sonntag in March. A joint EU force would also rationalize defense spending and drive further EU integration.

For many European Union states, however, defense is a no-go area, with Britain especially hostile to sacrificing what it sees as a core sovereign prerogative to Brussels.

Britain also insists that NATO, the US-led military alliance set up to hold the Cold War line against the Soviet Union, should remain the focus of European defense efforts.

Juncker told the forum that considering the current fragmented state of EU military readiness, it was perfectly "right that central and eastern European countries put their trust primarily in NATO."

"The 28 armies are just not up to it," he added. EU leaders are due to review the bloc's security policy at a June summit to take on board the threat posed by a more assertive Russia and turmoil across North Africa and the Middle East.

Analysts say it is unlikely to lead to radical changes in the current very limited joint military operations undertaken by the EU, such as the Atalanta anti-piracy mission off the Horn of Africa.

#### Editor's Comment



## FYROM blames Kosovans for deadly clash

Source: <http://www.aljazeera.com/news/2015/05/macedonia-policemen-killed-battle-armed-group-150509213341943.html>

May 10 – **The FYROM's government said eight police and 14 members of an "armed group" were killed after police staged a raid in the northern town of Kumanovo, seeking gunmen from Kosovo it claimed were planning to attack civilian and state targets.** Another 37 officers were wounded in

However some residents in Kumanovo were deeply skeptical of the official version of events.

### Citizens 'surprised'

"Me, like other citizens, we are surprised and no one knows what and why this happened. I

know during the war in 2001 we were informed and we have supported these groups that were fighting for the Albanian cause but now it is the contrary," Kumanovo resident Xhelal Ademi told the Reuters news agency.

"The people in this region were guarding their villages to not let anyone infiltrate from outside our villages," Ademi said.

**Kotevski said some of the attackers killed wore uniforms with insignia of the disbanded ethnic Albanian Kosovo Liberation Army, or UCK.**

Authorities said about a fortnight ago, a group of about 40 people wearing UCK uniforms attacked a

police watchtower in Gosince on FYROM's northern border with Kosovo and briefly captured four FYROM police officers.

Authorities described that incident as "very serious" and said FYROM was the "target of a terrorist attack".

The FYROM's government has declared two days of mourning for those killed in the operation. Sporting events and political gatherings have been cancelled.

Kumanovo is an ethnically mixed town located about 40km northeast of the capital Skopje, near the border with Kosovo and Serbia.

This incident came a day after thousands of opposition supporters joined nationwide protests against alleged police brutality.



Saturday's pre-dawn raid.

Ivo Kotevski, an Interior Ministry spokesman, told a news conference that the gunmen were led by ethnic Albanian former rebel commanders from Kosovo, which broke away from Serbia in war in 1999.

Kotevski named five leaders of the group, all citizens of Kosovo, as founders of paramilitary cells. He said the group entered FYROM at the beginning of May to launch attacks on state institutions and hid out in Kumanovo's western neighborhood, where police found a huge arsenal of weapons.

Kotevski said no civilians were reported killed in the raid, which continued into Sunday. Many had fled, carrying their belongings in bags.

More than 30 people were arrested and some of them were taken before a judge in the capital Skopje.

**EDITOR'S COMMENT:** The real question is: "Who is behind this turmoil and why?"





# São Paulo water crisis shows the failure of public-private partnerships

By Steffen Böhm and Rafael Kruter Flores

Source: <http://www.homelandsecuritynewswire.com/dr20150511-s-o-paulo-water-crisis-shows-the-failure-of-publicprivate-partnerships>

May 11 – São Paulo’s ongoing water crisis has left many of the city’s twenty million or more residents without tap water for days on end. Brazil’s largest metropolis is into its third month of water rationing, and some citizens have even taken to drilling through their basements to reach groundwater. Most commentators agree that the crisis is to blame on multiple

themselves bumper bonuses despite millions of their customers going thirsty. São Paulo’s water will go from crisis to crisis so long as Sabesp prioritizes profits over long-term investment.

Clearly there are human-induced environmental factors at play: climate change, deforestation of the Amazon, pollution, as well as overconsumption. The pressures we put on nature are likely to increase water shortages worldwide, perhaps leading to conflicts and wars.

However, at the same time, there have always been droughts. Historical records going back hundreds of years show how cities and regions have struggled and often coped with extreme water shortages. So, periods without much rain are nothing new. But if that is the case, shouldn’t it be the responsibility of water utilities to plan for such events, putting in place contingency measures to manage possible water shortages?

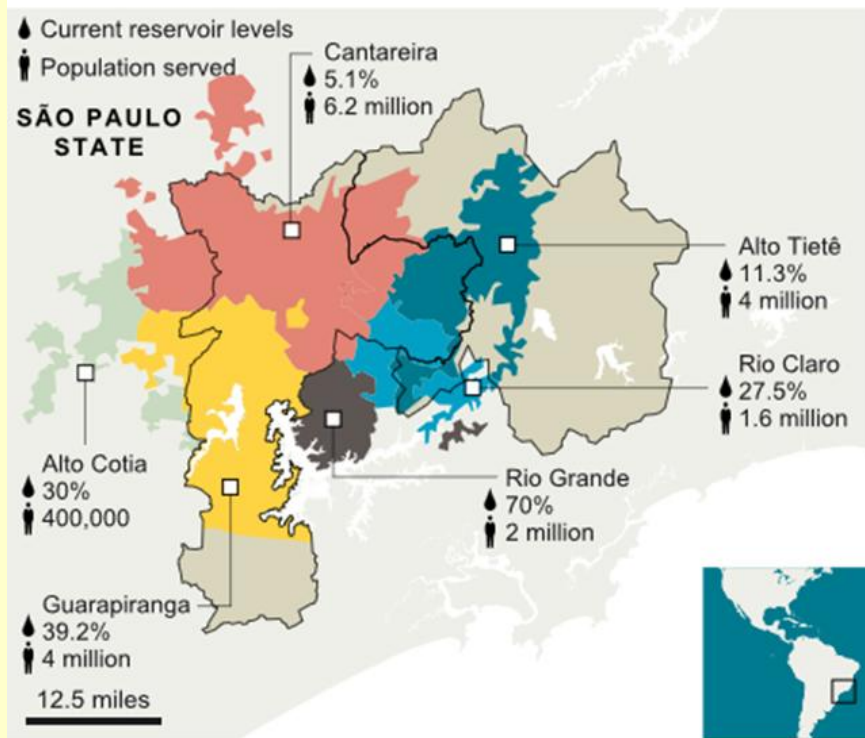
São Paulo’s extraordinary growth in recent decades has overloaded the Cantareira, the city’s water supply system. But the rapid increase in water usage was hardly a surprise; it’s something that could have been managed and planned for. Sabesp has failed to do exactly that.

### A profit-making public monopoly

One of the world’s largest water utilities, Sabesp was founded as a public institution in 1973. Since privatization in 1994 the state of São Paulo has maintained at least half of the company’s voting capital, though shares are also traded on the New York and São Paulo stock exchanges. While the *Economist* and others were keen to point out that

## Sao Paulo faces extreme water rationing

Reservoir system capacity by area (2.2 trillion litres, 2010)



Sources: Graphic News, Sabesp state water utility, Folha de Sao Paulo, Stratfor

factors, but few have questioned the role of the water company in charge: Sabesp. The utility, responsible for water and waste in São Paulo and the surrounding state of the same name, has clearly failed its public service remit. Yet, it’s not even clear whether public service is the highest priority for part-privatized Sabesp, whose directors have just awarded

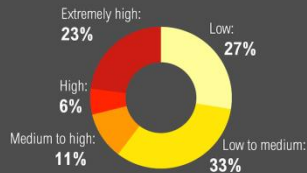


Sabesp is “majority-owned by the state government,” this doesn’t tell the whole story. The utility is neither a public organization concerned with providing a public service, nor a private company facing competition from other companies and controlled by regulatory agencies. Just like the “natural monopolies”

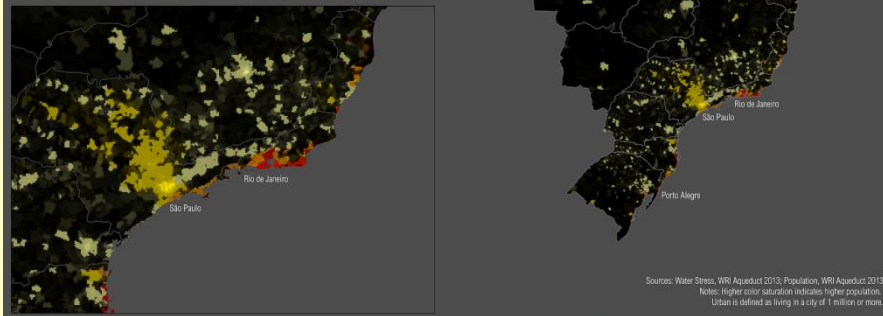
water companies, local residents and civil society. These committees are supposed to be responsible for deciding on water use in a particular watershed. Yet, twenty-three years after this mechanism was supposedly implemented by Law 7663 in São Paulo — and after seventeen years of a similar rule at the

BRAZILIAN POPULATION DENSITY & BASELINE WATER STRESS

DISTRIBUTION OF URBAN WATER STRESS



40% OF BRAZIL'S URBAN POPULATION  
FACES MEDIUM TO EXTREMELY HIGH WATER STRESS



Sources: Water Stress, WRI Aqueduct 2013; Population, WRI Aqueduct 2013  
Notes: Higher color saturation indicates higher population.  
Urban is defined as living in a city of 1 million or more.

For more: <http://bit.ly/1xTIS20>

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national level — we still do not know who participated in these committees. On paper these committees exist, but in practice they are not empowered by state structures.

Dysfunctional governance in São Paulo state has left the part-privatized utility, Sabesp, to mainly follow the principles of the market and the interests of its private shareholders. This inevitably skews its strategy towards the short-term.

When deciding whether to make the necessary investments to prepare for possible water shortages, Sabesp has had to choose whether to safeguard the public supply or increase the value of its shares. The company did invest US\$4 billion from 2005 to 2013, but that is still not enough. Many of the necessary measures to prevent the current

enjoyed by water companies in the United Kingdom, Sabesp has a publicly guaranteed monopoly, yet its profits are part-privatized — earlier this year it paid out R\$252 million (US\$83 million) in dividends.

São Paulo’s water is just one of many public utilities that have been privatized throughout the world over the past few decades. Governments have followed the ideological belief that, in order to conserve and manage water properly, it is essential to put a price on what used to be a public good. In 1992, the UN adopted the Dublin Principles, declaring that putting a price on water and establishing a “participatory approach” — which is about involving users, planners and policy-makers at all levels — was the best way to reach a sustainable and equitable governance of water. The principles were quickly adopted by Brazil’s government, and implemented first in, you guessed it, São Paulo.

The Dublin Principles call for the establishment of “basin committees,” formed of government,

crisis — such as upgrading the Cantareira system — were not implemented because they would be unprofitable to Sabesp’s shareholders.

The company’s lack of transparency since the crisis kicked off highlights its planning failure. For many months Sabesp denied that water was being rationed. Then state governor, Geraldo Alckmin, acknowledged that there was lack of water, but said they were “isolated and private” cases. Then a bonus offered to those who economized water in their daily use, later turned into a fine for those who “waste” water.

The most essential resource of all has now become a struggle in São Paulo. Yet, ever deepening inequality has turned a water crisis into a social and economic crisis — communities on the periphery of the city and slums were inevitably the first to have their water rationed.

Responsibility for this crisis lies with Sabesp and two decades of running water supply as a for-



profit service. It is a failure of public-private partnership. As climate change and other environmental factors make water crises more

likely, we better rethink the way water is managed worldwide.

*Steffen Böhm is Professor in Management and Sustainability, and Director, Essex Sustainability Institute at University of Essex.*

*Rafael Kruter Flores is Lecturer in Administration and Organization Studies at Universidade Federal do Rio Grande do Sul.*

## What Nairobi flooding, Ebola, and South African xenophobia have in common

Source: <http://mgafrica.com/article/2015-05-13-what-nairobi-flooding-ebola-and-south-african-xenophobia-have-in-common>

Making cities work is a much tougher job than cutting through bush to build a road, and reviving a tourism industry is not like growing maize

Liberia celebrated the official defeat of the deadly Ebola virus, which had killed 4,716 people in the country and infected more than 10,000; it's a remarkable turnaround for a country that was almost being written off last year.

And the World Economic Forum released its annual Travel and Tourism Competitiveness Report, in which this year's rankings has highest-ranked South Africa as the continent's most "tourism-ready" country, but is now facing a slump in the tourism sector following xenophobic attacks in the country last month, with several countries

issuing advisories cautioning visitors against travel unless they have a sound reason to do so.

All three stories suggest that African countries – and, especially cities – are slowly but perceptibly shifting, and what is needed now is a more sophisticated, clever, data-driven and evidence-based type of leadership.

In the first few decades after independence, the brute approach of simply building physical infrastructure like roads, schools and hospitals could get you extensive political mileage, simply because they weren't there before.

### Changing nations and cities

But Africa is quickly urbanising – today, 40% of Africans live in cities, and by 2030, more Africans



*Cairo traffic. You might think that expanding a road would ease traffic jams. But expansion only solves the problem temporarily, and in the end, traffic is as bad as before. (Photo: Flickr/John6536).*

IN the last seven days, three stories have emerged out of Africa, and though at first glance they seem unrelated, they hint to a changing Africa, and why it the politics of rewarding illiterate cronies and hangers-on with public jobs may finally be on its last legs.

In Nairobi, heavy rains precipitated extensive flooding on major roads and a citywide traffic snarl-up Monday and Tuesday night.

Dramatic photos from around the city show cars submerged, homes flooded with knee-high water and some residents were getting home at 5am after being in an 11-hour traffic jam.



will live in towns than in rural areas. Making cities work is a much tougher job than cutting through bush to build a road. In Nairobi's case, numerous buildings have come up along riparian reserves, often with collusion from the city authorities to illegally allocate riverbanks to private developers. In many cases, the flooded roads are simply rivers taking their natural course. Conclusively fixing Nairobi's notorious drainage problems will require some painful decisions. Solving the legendary traffic jams in cities like Dar es Salaam, Kampala and Lagos also require more thoughtful and innovative ideas. For example, you might think that expanding a road would ease traffic jams, as a dual carriageway will, in theory, carry twice as many cars as a single-lane road. But studies have shown that in many cases, expanding the road eases the gridlock only temporarily.



The sophisticated approach is what saved Liberia from Ebola. Ebola is perhaps the archetypal disease whose management totally runs counter to the traditional ways of handling emergencies in African societies. When faced with a crisis, African communities pull together in solidarity – villagers will come and cook and help with the chores for a family that has been bereaved, for example. But village solidarity was the very thing that caused the virus to spread like wildfire. Containing Ebola required protective gear and isolation wards, but more importantly, it required tracing, surveilling and quarantining people who had been exposed to the virus. Something as simple as a street/ physical address system could have made it all the easier to find contacts and stop the spread of the disease – but even that is a rarity in many African cities. HIV Aids had presented a similar crisis that required a more elaborate and systematic method of containment.

*The concrete drums christened "Kidero Drums" line Nairobi's main thoroughfare, Uhuru Highway. The traffic project cost \$4.1million - and it failed miserably. (Photo: @SheiMasinde).*

The expansion opens up the road to more cars, and for a while it seems the traffic problem is "solved". But it also means more people are likely to rush and move to the area thanks to its improved infrastructure, and in the end, the traffic is as bad as before.

**Brute strategy**

Last month, Nairobi governor Evans Kidero attempted to tackle the traffic problem with another "brute" strategy, which involved closing off right turns off the city's main thoroughfare with big concrete drums. But it failed disastrously, and he was forced to concede defeat and carry off the "Kidero Drums".

Giving people anti-retroviral drugs is not like lining them up for a vaccination jab – it requires follow-up, home visits to ensure the patient is taking the medication faithfully, and educating patients on the importance of a good diet and what constitutes proper nutrition.

**Terrorism headache**

The problem of terrorism facing many African countries is another tricky one, which requires a clear-eyed, lucid conceptualisation of the nature of terrorism itself. Terrorists rely on provoking a heavy-handed response from their victim to achieve some political goal. So when victim countries clamp down hard on the marginalised group perceived to be "hiding" the terrorists, it only entrenches anger and



resentment in the marginalised community—which is exactly what the terrorists want, a kind of political jujitsu in which the weaker group tricks the stronger group into using its own power against itself, as this seminal essay by David Fromkin explains.

This is why rounding up and garrisoning thousands of Somalis in Nairobi in the wake of the 2013 Westgate attack was doomed to fail as an anti-terror strategy; it simply played right into the extremists' hands.

### Tourism not like gardening

And reviving a tourism industry – as South Africa might soon learn – is not like growing maize; you can't throw seeds and fertiliser at the problem, sit back and wait for it to grow.

Tourism is a notoriously fickle industry, where subjective perceptions of insecurity often have a far more adverse impact than the actual situation.

Negative images of a tourist destination can persist for years and affect a whole country, even if the political instability was contained in a small region.

To re-emerge from such subjective negative perceptions requires unorthodox methods, says the WEF report. For example, it could call for active "perception management" where negative publicity about a destination is

limited, and countries can even put a positive spin on political events that have devalued a country's currency, making it cheaper for tourists to visit the destination.

For example, Bali in Indonesia used the drastic devaluation of the rupiah in the aftermath of the 2005 bombings in a marketing campaign with the slogan "Our loss is your gain!"

WEF even suggests "crisis-immune product offerings" which will involve physically insulating touristic places from areas facing political unrest.

This strategy has been successful in Egypt, where isolated resorts and enclave cities have been developed along the Red Sea, and across the Caribbean—the isolated peninsular resort of Labadee in Haiti, for example, is fenced, heavily guarded and completely closed off for locals except for the resort personnel.

It may not work in all situations, but Africa sorely needs a more thoughtful, original and innovative ideas to make its cities – and countries – work. The old ways are almost running their course. If you are a president, appointing your relative, party supporter, or clansman is increasingly becoming useless—they probably don't have the new age skills needed to make your government succeed.

## British have invaded nine out of ten countries worldwide

Source: <http://www.telegraph.co.uk/history/9653497/British-have-invaded-nine-out-of-ten-countries-so-look-out-Luxembourg.html>

Every schoolboy used to know that at the height of the empire, almost a quarter of the atlas was coloured pink, showing the extent of British rule.

But that oft recited fact dramatically understates the remarkable global reach achieved by this country.

A new study has found that at various times the British have invaded almost 90 per cent of the countries around the globe.

**The analysis of the histories of the almost 200 countries in the world found only 22 which have never experienced an invasion by the British.**

Among this select group of nations are far-off destinations such as Guatemala, Tajikistan and the Marshall Islands, as well some slightly closer to home, such as Luxembourg.

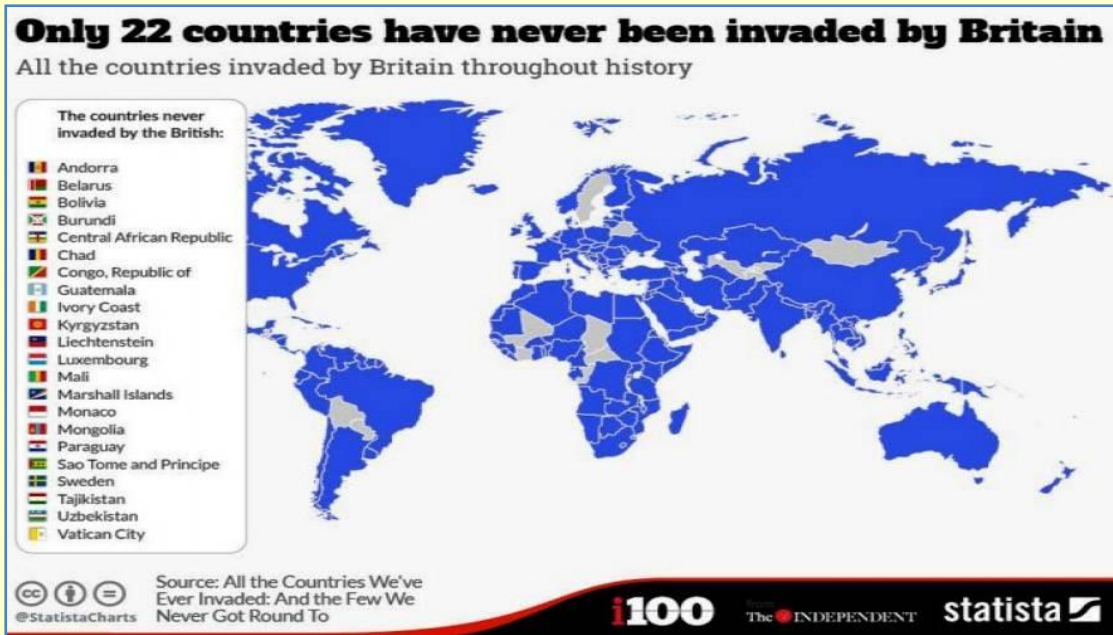
**The analysis is contained in a new book, *All the Countries We've Ever Invaded: And the Few We Never Got Round To.***

Stuart Laycock, the author, has worked his way around the globe, through each country alphabetically, researching its history to establish whether, at any point, they have experienced an incursion by Britain.

Only a comparatively small proportion of the total in Mr Laycock's list of invaded states actually formed an official part of the empire.

The remainder have been included because the British were found to have achieved some sort of military presence in the territory – however transitory – either through force, the threat of force, negotiation or payment.





Incursions by British pirates, privateers or armed explorers have also been included, provided they were operating with the approval of their government.

So, many countries which once formed part of the Spanish empire and seem to have little historical connection with the UK, such as Costa Rica, Ecuador and El Salvador, make the list because of the repeated raids they suffered from state-sanctioned British sailors.

Among some of the perhaps surprising entries on the list are:

Cuba, where in 1741, a force under Admiral Edward Vernon stormed ashore at Guantánamo Bay. He renamed it Cumberland Bay, before being forced to withdraw in the face of hostile locals and an outbreak of disease among his men. Twenty one years later, Havana and a large part of the island fell to the British after a bloody siege, only to be handed back to the Spanish in 1763, along with another unlikely British possession, the Philippines, in exchange for Florida and Minorca.

Iceland, invaded in 1940 by the British after the neutral nation refused to enter the war on the Allies side. The invasion force, of 745 marines, met with strong protest from the Iceland government, but no resistance.

Vietnam, which has experienced repeated incursions by the British since the seventeenth century. The most recent – from 1945 to 1946 – saw the British fight a campaign for control of the country against communists, in a war that

has been overshadowed by later conflicts involving first the French and then Americans. It is thought to be the first time such a list has been compiled.

Mr Laycock, who has previously published books on Roman history, began the unusual quest after being asked by his 11-year-old son, Frederick, how many countries the British had invaded.

After almost two years of research he said he was shocked by the answer. "I was absolutely staggered when I reached the total. I like to think I have a relatively good general knowledge. But there are places where it hadn't occurred to me that these things had ever happened. It shocked me.

"Other countries could write similar books – but they would be much shorter. I don't think anyone could match this, although the Americans had a later start and have been working hard on it in the twentieth century."

The only other nation which has achieved anything approaching the British total, Mr Laycock said, is France – which also holds the unfortunate record for having endured the most British invasions. "I realise people may argue with some of my reasons, but it is intended to prompt debate," he added.

He believes the actual figure may well be higher and is inviting the public to get in touch to provide evidence of other invasions.

In the case of Mongolia, for instance – one of the 22 nations



"not invaded", according to the book – he believes it possible that there could have been a British invasion, but could find no direct proof. The country was caught up in the turmoil following the Russian Revolution, in which the British and other powers intervened. Mr Laycock found evidence of a British military mission in Russia approximately 50 miles from the Mongolian border, but could not establish whether it got any closer.

The research lists countries based on their current national boundaries and names. Many of the invasions took place when these did not apply.

The research covered the 192 other UN member states as well as the Vatican City and Kosovo, which are not member states, but are

recognised by the UK government as independent states.

The earliest invasion launched from these islands was an incursion into Gaul – now France – at the end of the second century. Clodius Albinus led an army, thought to include many Britons, across the Channel in an attempt to seize the imperial throne. The force was defeated in 197 at Lyon.

Mr Laycock added: "On one level, for the British, it is quite amazing and quite humbling, that this is all part of our history, but clearly there are parts of our history that we are less proud of. The book is not intended as any kind of moral judgement on our history or our empire. It is meant as a light-hearted bit of fun."

**EDITOR'S COMMENT:** Define "invaded"! Perhaps "divide and conquer"? And then what?

## EU to launch Mediterranean military operation to end human trafficking

Source: <http://www.homelandsecuritynewswire.com/dr20150519-eu-to-launch-mediterranean-military-operation-to-end-human-trafficking>

May 19 – **The EU will launch a sea and air mission aiming to stop human traffickers from bringing more African migrants into Europe. The operation will include the destruction of vessels used by the traffickers.**

So far this year, more than 1,800 migrants have lost their lives crossing the Mediterranean on their way from Libya to Italy.

The first phase of the operation will involve intelligence gathering, with U.K. drones and surveillance equipment playing a major role. In subsequent phases of the operation, hostile vessels suspected of carrying migrants would be boarded, searched, seized, or disposed of in Libyan territory or international waters, after a chapter 7 UN resolution to authorize the use of force to do so is voted on.

The EU's foreign policy chief Federica Mogherini told a Brussels press conference that the plan could be launched as soon as 25 June.

"There is a clear sense of urgency as we all know that June is the beginning of summer and in this operation, seasons are important," she said. "As summer comes, more people are

travelling so we want to have the operation in place as soon as possible, if it is to deter the traffickers' and smugglers' organizations."

An EU strategy paper discussing the various options available to EU members referred to ground operations in Libya against human trafficking targets, but Mogherini did not discuss this option in her press conference.

One diplomat told the *Guardian* that the mission's rules of engagement have still to be worked out. He described the deployment of such forces as "the next step in terms of operational details." Among other aspects of the operation to be discussed, the diplomat said, was the acceptable level of collateral damage to Libyan targets and civilians.

The EU operation, which will initially be authorized for one year, will be run out of Rome and will be under the command of an Italian rear admiral, Enrico Credendino.

Libya, which earlier expressed support for the EU plan, has now qualified its support, expressing unease about the possibility of fishermen's boats being mistakenly targeted.



Stronger opposition to the plan is coming from refugee rights groups, which say they are worried the implementation of the plan would result in blocking the escape routes of people fleeing for their lives from Syria, Eritrea, and West Africa – where most of the migrants originate – dooming many of them to death.

“An unintended consequence of this mission is that it may even lead to more deaths,” said Michael Diedring, the secretary general of the European Council on Refugees and Exiles (ECRE). “If there is a shortage of vessels, even more people will be packed into them. There is even a possibility, given the desperate situation these people face, that they might try to construct their own boats.”

Analysts note that the traffickers typically lease boats from local fishermen on a per-trip basis – as do other criminals and smugglers. To avoid notice, the boats are loaded – often, overloaded – with migrants at the last minute, usually in total darkness, before they depart on their perilous voyage to Italy.

To avoid detection by naval patrols when the sun rises, the migrants are crammed into the hulls of these boats, so that often there is no way to tell whether an innocent looking vessel

is carrying hundreds of illegal migrants below deck.

Diedring said that there was a risk that boats could be targeted with people still on board. “The solution to putting the smugglers out of business is to increase safe legal channels for migration,” he said. “It is ironic that people fleeing from war and persecution are being met with more of the same.”

The *Guardian* notes that EU member states are divided by sharp disagreements over a European Commission proposal aiming to share the number of migrants who arrive in Europe more evenly between EU members.

French Prime Minister, Manuel Valls, on Sunday joined the United Kingdom in opposing a quota system which could stir anti-migrant feelings. “France has already done a lot,” he said.

The EC proposal called for France to take 14 percent of migrants who reached the EU’s shores, while 18 percent would be assigned to Germany, the largest recipient of migrants at present. Italy would have been asked to accept nearly 12 percent of the North African evacuees, and Spain 9 percent.

**EDITOR’S COMMENT:** If that measure would be proven successful we can also copy and paste it on the east side of the problem – EU can bomb Turkey coasts as well! Come on people! Be serious and try to think instead of applying mono-cell reflective movements!



**UNHCR – Global refugee crises will hinder resettlement of Asian "boat people"**

Source: <http://tmsnrt.rs/1cbf8UZ>

A Rohingya migrant mother (R) and her child, who recently arrived in Indonesia by boat, hold a placard while posing for photographs for immigration identification purposes inside a temporary compound for refugees in Aceh Timur regency, Indonesia’s Aceh Province May 22, 2015. REUTERS/Beawiharta

May 22 – Resettling asylum seekers who are among the thousands of boat people in temporary shelters in Indonesia and Malaysia will prove "extremely difficult" due to the mounting refugee crises around the world, a U.N. official said.





Responding to international concern about thousands of migrants adrift at sea, Indonesia and Malaysia on Wednesday said they would offer shelter to 7,000 migrants, provided they were repatriated or resettled in third countries within a year.

"Those places are very, very precious. There are perhaps 100,000 people a year who manage to be referred for third country resettlement," said Alistair Boulton, UNHCR's assistant regional representative.

"Syria alone has four million refugees, including massive numbers of people in acute crisis, with unbelievable trauma," he told the Thomson Reuters Foundation in an interview in Bangkok. UNHCR estimates more than 87,000 migrants - mostly Rohingya from Myanmar and Bangladeshis fleeing persecution and poverty - departed between January 2014 and the end of March this year on smugglers' boats across the Bay of Bengal and Andaman Sea to Malaysia and Indonesia.

They are starved, constrained and beaten, and may be held in Thailand for ransom before being granted onward passage or killed.

Many migrant boats have been pushed back to sea by Thailand, Malaysia and Indonesia this month. The United Nations refugee agency UNHCR estimated on Friday that some 3,500 migrants are still stranded on boats with dwindling supplies, and repeated its appeal for the region's governments to rescue them.

Repatriating people on the boats identified as Bangladeshi economic migrants would not be a problem, with Bangladesh willing to take them back, Boulton said on Thursday.

However, resettlement outside the region for those identified as refugees or stateless may encourage more people to join the exodus, he said.

UNHCR, the International Organization for Migration and the U.N. Office on Drugs and Crime - the three agencies invited to a regional

summit on May 29 in Bangkok to address the crisis - have shared with the governments involved a 10-point plan of action.

The plan is similar to one recently drafted for the boat crisis in the Mediterranean, Boulton said.

It calls for rescue at sea, disembarkation to safety, attention to humanitarian needs such as food and medical attention, and an evaluation of the individuals to determine whether they are economic migrants, refugees or stateless.

The final point of the plan urges Myanmar and Bangladesh, the source countries of the migrants, to address the root causes of the problem, including the issue of citizenship, which is a problem for the Rohingya in both Myanmar and Bangladesh.

There are about 1 million Rohingya in Myanmar's Rakhine state, and "perhaps between 200 to 500 thousand" in Bangladesh, living in makeshift shelters or among the population with no formal status, Boulton said. There are also 32,000 formally recognised Rohingya refugees in Bangladesh.

Myanmar's Rohingya are not recognised as citizens, and have long complained of state-sanctioned discrimination, and persecution including forced labour, restrictions on movement and marriage and land confiscation. Myanmar denies discriminating against the group.

Boulton urged the international community to consider solutions to the crisis through regulation of the migration as a way of meeting labour demands in destination countries.

"If you look at who's going where and why - is there a way to formalise that, document people, bring it out into the light so it's a regularised movement?"

"You cut the smugglers and traffickers out, but you provide people what they need, you provide states what they need, and the protection is alongside that."

## Lessons for Mediterranean? Euro force hunting Somali pirates

Source: <http://www.hellenicshippingnews.com/lessons-for-mediterranean-euro-force-hunting-somali-pirates/>

The hulking P-3C Orion aircraft prepares to take off from a military base in the Horn of African nation of Djibouti, on the latest mission hunting pirates off Somalia's coast.

Equipped with surveillance cameras, the German military aircraft will head along Somalia's long desert coastline searching



for “suspicious activity” and the tell-tale signs of pirates.

The nine-hour flight is a key part of the European Union anti-piracy fleet, known as Operation Atalanta, that is fighting piracy on one of the world’s most important and busiest shipping channels, through the Gulf of Aden to the Red Sea and Suez Canal.

The success of Atalanta in combatting Somali piracy has led to it becoming the model for a proposed EU mission to fight people smugglers in the Mediterranean.

“What we’re looking for is all kind of equipment that could be used for piracy attacks,” said flight-lieutenant Jens P, sitting at radar screens inside the aircraft cabin.

“Those are very fast moving boats, weapons, ladders — anything that is not usually used for fishing activities,” he said.

Atalanta has four warships and two aircraft, rotating between 10 nations, and has patrolled off the Horn of Africa since 2008, tasked with protecting merchant ships including the cargo vessel carrying aid for the war-torn region.

Pirate hijackings peaked four years ago but have since fallen to almost zero.

Over 30,000 ships pass through the Gulf of Aden each year between Arabia and Africa, Bab al-Mandeb straits into the Red Sea and Suez Canal. As waves of desperate people attempt the dangerous crossing of the Mediterranean to Europe, Atalanta has become the model on which some in the EU would like to base an international military response.

The controversial plan envisages naval patrols with a mandate to destroy boats used by Libyan people smugglers, something that Atalanta aircraft have occasionally done in Somalia. The plan has been criticised by Libya and some UN officials.

“The calculus in the Mediterranean is far more complicated,” UN special envoy on migration Peter Sutherland told the Security Council last week.

He warned that “innocent refugees, including many children” might be caught “in the line of fire”.

In the Horn of Africa, members of the EU force are proud of their mission’s success, but warn that any scaling back could see the pirates return.

“The successes are more tactical than strategic in nature — the economy of piracy has not

been eradicated,” said EU ambassador to Djibouti, Joseph Silva, who called for extension of the force when its mandate ends next year.

“If Atalanta were to stop completely, I think we would see soon enough resurgence of piracy,” he said.

At the height of the crisis in 2011, Somali pirates were responsible for the hijacking of 28 vessels and 237 incidents, with attacks launched as far as 3,655 kilometres (2,277 miles) from the Somali coast in the Indian Ocean.

Seized vessels included supertankers transporting close to two million barrels of crude oil, and a Ukrainian cargo ship loaded with weapons and tanks.

A raft of measures taken by the shipping sector has also contributed to the decline of piracy: the presence of armed guards on board, the use of barbed wire, an increase in navigation speeds, navigating as far away from the coast as possible.

During piracy’s worst year’s NATO and a US-led task force also guarded the seas and these international patrols have been key to bringing Somali piracy almost to a halt.

Last year attacks slumped to only two, while no major attack has been reported in 2015, although some 30 sailors are still held hostage.

“Piracy has gone down dramatically since 2012. That has a lot to do with Atalanta efforts and the military assets deployed,” said Lieutenant Thomas Szczepanski, in charge of flight operations for the German section of the mission.

As well as the European force, international naval patrols from China, Japan, India the United States and Russia have also protected shipping and fought off pirate vessels. But the monitoring continues. After the German aircrew returns to base in Djibouti, a Spanish aircraft takes over for the next mission.

European force chief, Swedish Admiral Jonas Haggren, remains cautious about saying Somali piracy is over.

“We cannot say that piracy has disappeared — it is contained, but the piracy networks are still intact,” said Haggren.

Somalia’s weak government — propped up by a 22,000-strong African Union army — does not control the key areas where pirates operate, largely along the

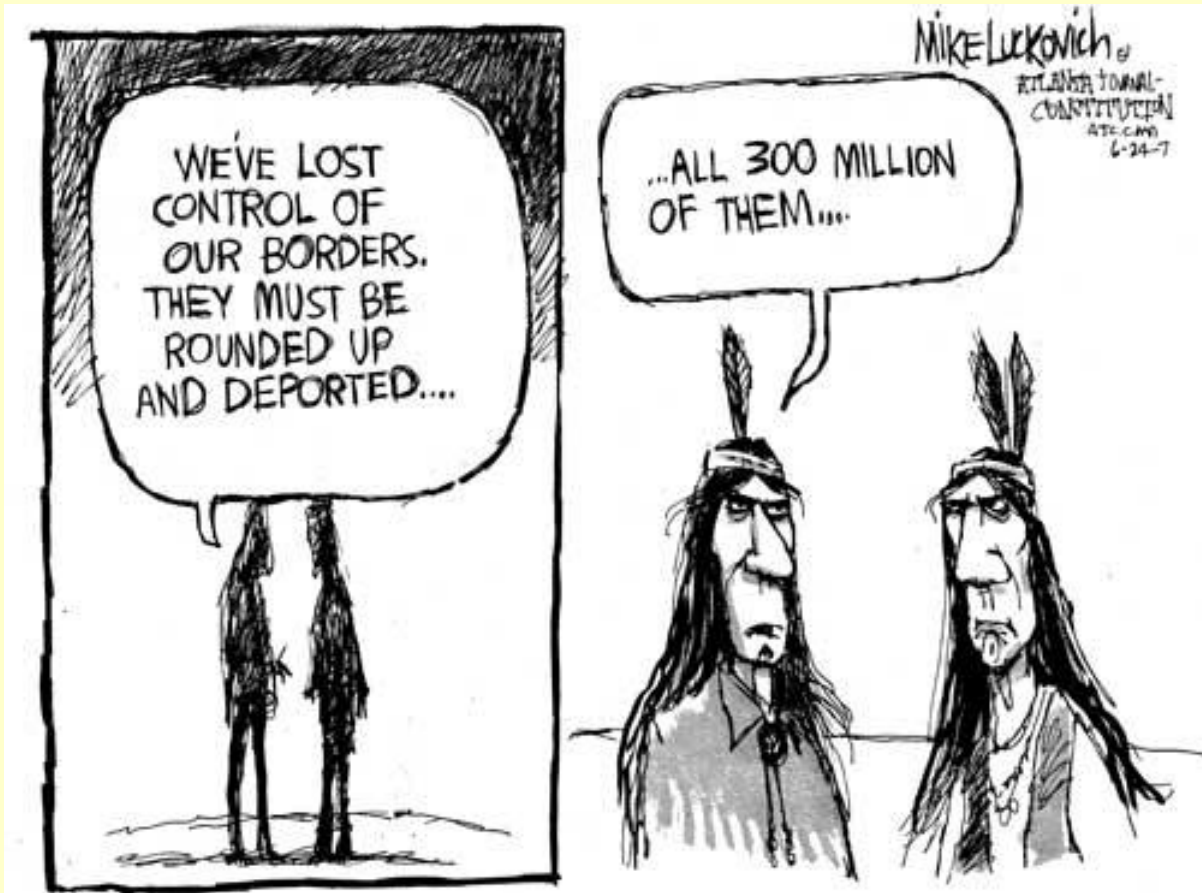


northern coast in the autonomous Puntland region.

"We make friendly approaches, we have smaller boats in the area talking to local fishermen, gaining information — and we also

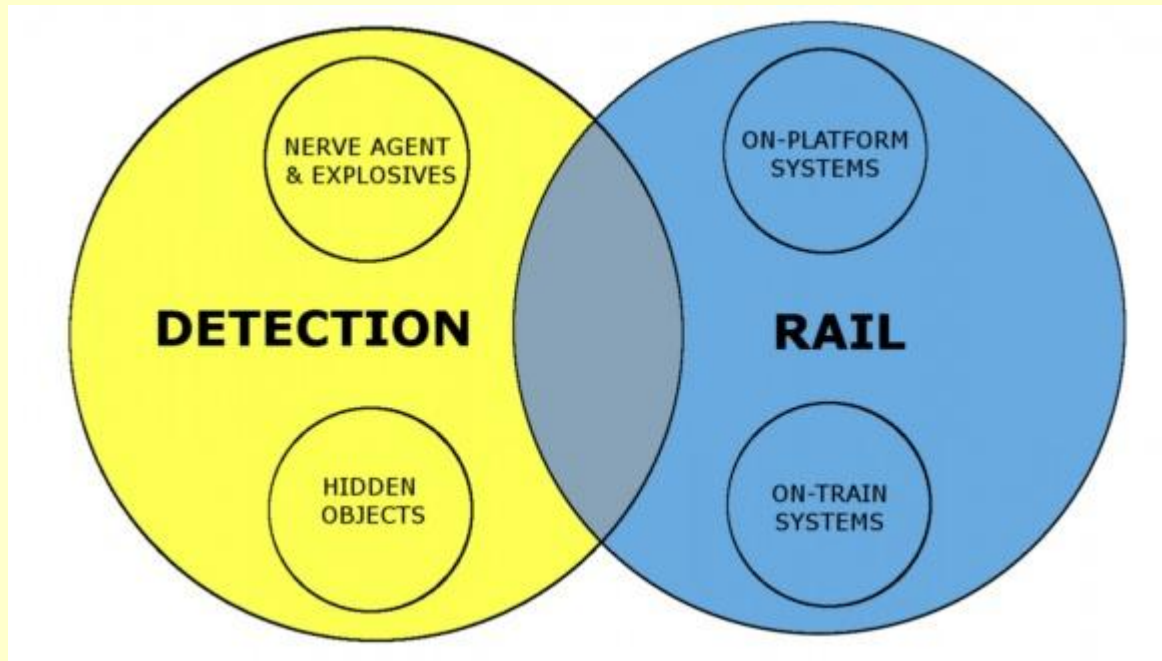
at the same time deter and disrupt piracy," Haggren said in an interview aboard the force's headquarters vessel, the Dutch warship Johande Witt.

**EDITOR'S COMMENT:** An interesting article leading to the same conclusion: "temporary" measures like the Atalanta Operation lead to temporary solutions. The only permanent solution to both problems is facing and solving the inland situation in the countries of origin – that is helping stop conflicts and wars. Are we willing to do that? Those who follow the history of things happened both in Somalia and Libya will definitely answer NO. A few billions of euros is just a carpet that will cover all the things that we do not want to see and solve for our own reasoning.



## KeTech

Source: <http://www.ketech.com/index.php/about-ketech>



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### KeDetect CW NAIAD, SICAS and TBU

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**A Blueprint to a Middle East WMD Free Zone**

By Chen Kane

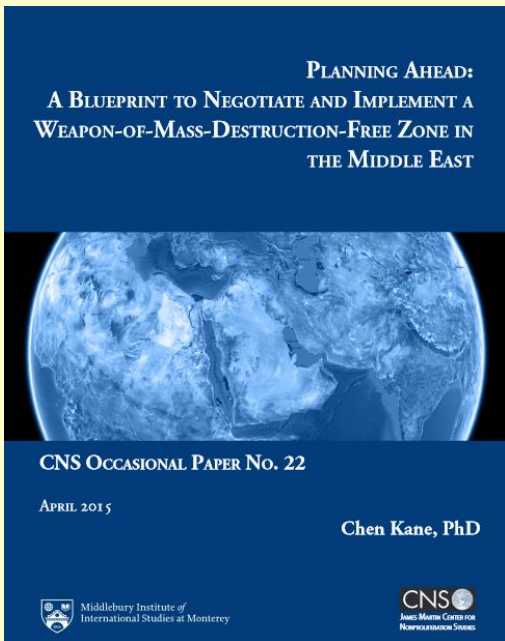
Source: <http://middleeast-armscontrol.com/2015/04/30/a-blueprint-to-a-middle-east-wmd-free-zone/>

Apr 30 – The ninth Review Conference (RevCon) of the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) is currently taking

**I just completed a new report titled "Planning Ahead: A Blueprint to Negotiate and Implement a Weapon-of-Mass-Destruction-Free Zone in the Middle East."**

The report, supported by the UK Foreign and Commonwealth Office and the Norwegian Ministry of Foreign Affairs, addresses the gaps with regard to the planned WMDFZ Middle East Conference, negotiation process, and the subsequent establishment of such a Zone by identifying the legal, technical, and organizational elements required to support the Zone negotiations and implementation. It recommends regional states establish a group of experts that can address the challenges in establishing “an effectively verifiable Middle East zone free of weapons of mass destruction, nuclear, chemical and biological, and their delivery systems.”

Creating a WMDFZ is a very tall order; not only has one never been created before, but also all existing nuclear-weapon-free zones (NWFZs) formalized an already existing situation—the absence of nuclear weapons in their region. The WMDFZ, by contrast, is aimed at reversing the status quo by dismantling existing WMD capabilities and programs in a region that is suspected of hosting all three categories of WMD. Moreover, the region suffers from deep-rooted conflicts and mistrust, and many areas are undergoing considerable social and political change. The increasing influence of non-state actors on states’ affairs and the existence of ungoverned territories in the region is another complicating



place in New York. Central issue for the RevCon include the Middle East zone free of weapons of mass destruction (WMD).

The idea to free the Middle East from all weapons of mass destruction and establishing a weapon-of-mass-destruction-free zone (WMDFZ) originated many decades ago. Surprisingly little thought has been given to how it can be realistically implemented. Currently, there remain significant gaps regarding core concepts of the WMDFZ (the “Zone”) negotiations and implementation within the Middle East and internationally.



factor. Additionally, while there are regional and international regimes and organizations charged with verifying the peaceful nature of nuclear energy programs and chemical industries (all of which could inform the WMDFZ negotiators), there are no comparable mechanisms to cover nuclear and biological weapons dismantlement, verify sensitive activities for biological programs, nor sufficiently regulate WMD delivery systems—all of which are mandated under the Middle East WMDFZ.

### Proposals

The report offers a number of constructive suggestions that could engender significant progress on the issue. For instance, regional states can establish a **Group of Experts** to discuss legal, technical, and organizational issues essential to negotiating and implementing the Zone. Many of the issues identified in this report should be discussed first within regional states in a comprehensive interagency process, not just to formulate national positions on the issues, but also to clarify their declared, undeclared, known, or unknown WMD capabilities.

The regional experts group could also consider key **legal aspects** such as the negotiation mandate, scope, rules of procedures, and delineation of the Zone. This would include identifying options for issues such as: what weapon systems would be prohibited under the Zone (i.e., only nuclear, biological and chemical weapons and their delivery systems, or also radiological); what should be states obligations under the Zone; are there areas where agreement already exists; and in what ways existing NWFZs and no-first-use agreements could apply to the Middle East.

On the **technical aspects**, the report offers ideas and highlights issues on how to implement WMD weapons and programs disarmament and create an “effectively verifiable” verification mechanism. The report identifies sets of lessons learned from the five NWFZs, previous WMD dismantlement experiences such as South Africa, Libya, and Syria, and existing regional verification organizations such as ABACC and Euratom. Importantly, it is essential for the political and technical experts to work hand-in-hand to ensure that the politically desirable falls within

the realm of the technically feasible. This includes examining what are the verification lessons from past cases of WMD disarmament and dismantlement, to what extent will states be required to declare past or existing WMD programs, how can negotiators address the strategic linkages in the region between acquisition and dismantlement of chemical and nuclear weapons; and how and by whom will verification of dismantlement and compliance be conducted.

On the **organizational level**, the experts’ group could define how broadly or narrowly issues concerning the Zone will be defined. While the Zone may be defined narrowly to address the proliferation of WMD in the region, it is important to note that not one of the existing NWFZs exists in the absence of a regional architecture and agreed upon principles for cooperation and security. The experts’ group may want to address the underlying causes for regional WMD acquisition, as well as to adopt a set of principles regarding arms control and regional security that would govern relations among states in the region. To assist overcoming the prevailing mistrust, the group should also discuss the role of confidence-building measures (CBMs) as part of the Zone negotiation and implementation, and identify relevant unconventional and conventional CBMs to be implemented as part of the Zone.

The group could also recommend whether there is a need to establish a regional organization to ensure implementation of the treaty, address compliance and enforcement issues, and promote the peaceful applications of nuclear, biological, and chemical technologies. Given the prevailing reality of the region where non-state actors have tried to acquire WMD capabilities, targeted strategic infrastructure, and have gained control over significant territories (including where WMDs are located), the group could address how the Zone provisions would tackle this emerging threat.

If regional states are unwilling to commit experts to the process, an alternative route is to establish the dialogue as a track-two or track-one-and-a-half process. Because of the unique political and geo-strategic circumstances of the region,



nongovernmental experts have played a critical role by providing the only forum for regional dialogue on arms control and nonproliferation

in the Middle East since 1995, thus having much to offer in laying the foundations for an eventual WMDFZ.

► Read the full report at:

[http://www.nonproliferation.org/wp-content/uploads/2015/04/Planning\\_Ahead\\_WMDFZ.pdf](http://www.nonproliferation.org/wp-content/uploads/2015/04/Planning_Ahead_WMDFZ.pdf)

*Chen Kane is with Center for Non-Proliferation Studies*



## INTERPOL - Chemical and explosives terrorism

At INTERPOL, we support the efforts of member countries to deter, detect and disrupt the use of chemicals in terrorist incidents. The increasing use of Improvised Explosive Devices (IEDs), which cause thousands of deaths and injuries every year, is an issue of global concern, and one which INTERPOL is working to address through its Chemical and Explosives Terrorism Prevention Unit.

### PREVENTION PROJECTS

■ **The INTERPOL Chemical Anti-Smuggling Enforcement Programme (Chase)** is a global effort to counter the international smuggling of chemicals used in the manufacture of weapons designed to kill and injure indiscriminately. Chase will increase the capacity of police, customs, immigration and chemical and border security agencies to work collaboratively against the illegal

movement of chemical warfare agents, toxic industrial chemicals and explosive precursor chemicals, through training sessions and a multinational operation.

■ **Project Litmus** will enable law enforcement, first responders, health and environmental authorities to identify investigate and successfully prosecute the criminal use of chemical agents by developing an early warning capability. Litmus will begin as pilot in India, Pakistan and Bangladesh, with funding from the United States Department of State.

■ **CRIMP programme:** The two-year Chemical Risk Identification and Mitigation programme (CRIMP) develops the capacity of INTERPOL member countries to identify the regional risk posed by toxic chemicals and their precursors, through development of a prioritized list of the most significant chemicals of concern and a mitigation plan to counter this threat.

■ **Project Watchmaker:** INTERPOL coordinates information sharing to collect information, provide warnings and intelligence on suspected, wanted or convicted IED manufacturers. Various color-coded INTERPOL notices (Red, Blue, Green, Orange and Purple) are used to communicate the alerts and to support member countries in countering the threat posed by IEDs.

■ **Project Teal** aims to establish INTERPOL as the principal coordinating agency for the international Counter Improvised Explosive Devices (CIED) effort, by establishing an INTERPOL CIED team and integrating of both military and law enforcement intelligence on suspects involved in the manufacture and use of IEDS.

■ **Project Chasm** provides training and support to crime scene examiners and officials in relevant agencies, enabling them to adopt a systematic approach in dealing with crime scenes that are contaminated by chemical materials. The project reinforces their capacities to investigate, identify, prevent or respond to chemical attacks and strengthens cooperation between law enforcement agencies.





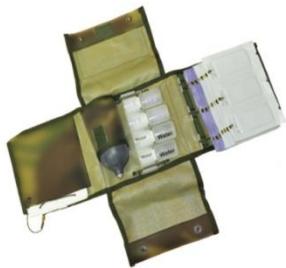
# Detection without Doubt

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## Bringing Out the Dead: Mass Fatality Management in the CBRNE Context

By Frank G. Rando

Source: <http://www.cbrneportal.com/bringing-out-the-dead-mass-fatality-management-in-the-cbrne-context/>

*“Our dead are never dead to us, until we have forgotten them” – George Elliot*  
*“The dead cannot cry out for justice. It is a duty of the living to do so for them”- Lois McMaster Bujold*

Apr 25 – A mass fatality incident or event is any circumstance resulting in mass deaths which exceed local death investigation resources. The challenges posed by fatality management and death/medico-legal investigations in the context of CBRNE terrorism are multifaceted and resource intensive.

The commonalities present in mass fatality management of CBRNE events, include:

1. *The event presents as a crime scene with inherent forensic considerations, and involves a complex investigative response. EVERY mass fatality event should be treated as a crime scene until proven otherwise by competent investigative and forensic authorities.*
2. *The event may generate a large casualty load with various mechanisms of harm leading to mass fatalities requiring identification of human remains.*
3. *As in all cases of natural and unnatural death, the cause of death is of paramount importance.*
4. *CBRNE events create the need for special precautions and decontamination of fatalities.*
5. *Community, survivor, first responder and first receiver crisis intervention and disaster mental health services will be required.*
6. *Mass fatality management resources must be integrated into community emergency preparedness and operational response plans.*
7. *Faith-based assets must be included in all aspects of mass fatality management and be readily available to provide pastoral counseling and critical event chaplaincy services.*
8. *Cultural and ethnic differences in handling and disposition of human remains must be respected, as much as possible.*

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► Read the rest of this article at source's URL.

*Frank G. Rando possesses over 30 years of real world experience as a public safety professional, clinician, educator, emergency and crisis manager, author and consultant in the areas of tactical, disaster and operational medicine, weapons and tactics, law enforcement /criminal investigations, counterterrorism, hazardous materials management and emergency response, toxicology, environmental safety and health, and health care and public health emergency management*

### Threat of chemical weapons

Have remnants of Gaddafi's hidden stockpiles fallen into jihadi hands?

By Ambassador Mukherjee

Source: <http://www.tribuneindia.com/news/comment/threat-of-chemical-weapons/77516.html>

With the ISIS declaring an Islamic Caliphate, the alarming prospect of the use of WMDs (Weapons of Mass Destruction), including chemical weapons falling into jihadi hands, could become a reality. The issue re-emerged recently with ongoing media reports about the alleged use of toxic chemicals in several barrel bomb attacks in Idlib governate between March 16 and 31, 2015. These raised troubling

questions. The scenario becomes more complex because Idlib has fallen to rebel forces. On March 18 Islamist group Jabhat al-Nusra and other armed opposition groups opened a major offensive against government forces in Idlib that culminated in its capture on March 28.



According to media reports, witnesses filmed remnants of barrel bombs. Among the remnants were containers typically used for refrigerants in refrigerators and air-conditioners. Videos and photos from the aftermath of five attacks, including material shared by the Syrian Civil Defence, show containers of a size, shape, and design commonly used for refrigerants. These canisters are easy to refill with other gases and widely available in Syria.

Three doctors who treated those exposed in two of the attacks reported that symptoms included troubled breathing, burning eyes, burning sensation in the throat, and coughing. In most serious cases the doctors described patients suffering from pulmonary edema, or fluid in the lungs. It was not possible to conclusively determine what toxic chemicals were used. The chlorine smell reported by rescue workers and doctors, a local journalist's report of a yellow gas leaking from a refrigerant canister after an attack on Idlib city, and the

refused to ratify it. Egypt and Syria argued that both had earlier ratified the NPT [Nuclear Non-Proliferation Treaty] on the understanding provided by the USA and the EU, that Israel would do so. This did not happen. Therefore Egypt and Syria kept out of the CWC. Egypt and Israel are yet to join the convention.

Syria perforce had to ratify the regime in October 2013 after strong international pressure following allegations of use of chemical weapons in Syria which first emerged near Aleppo in Northern Syria in March 2013. Following the America-Russia accord on this issue, the OPCW team completed verification of 96% destruction of Syria's chemical weapons stockpiles within the deadline of September 30, 2015. The total amount was 1300 metric tonnes. The UN Special Coordinator, Ms. Sigrid Kaag, informed the Security Council of the destruction of Syria's stockpiles on board US maritime vessel, Cape Ray. This was a complicated operation. Due to Syrian sensibilities about the direct



previous use of chlorine in the Syrian conflict suggests this chemical may have been used. Despite an effective disarmament instrument in the Chemical Weapon Convention (CWC), which contains an absolute prohibition on the use of chemical weapons, the regime has been challenged in recent years due to the complexity of the Middle East situation and the so-called failed Arab Spring. When the CWC was negotiated and ratified, the key players in the Middle East, Egypt, Israel and Syria

transfer to an American vessel, the chemicals were first transferred to a Danish ship, Ark Futura, in the Mediterranean, off the coast of Italy. Cape Ray had field deployable hydrolysis systems. The chemicals were neutralised in international waters.

On March 6, the UN Security Council adopted Resolution 2209 in which it expressed concern that toxic chemicals had been used as a weapon in Syria and decided



that in the event of non-compliance, it would impose measures under Chapter VII of the UN Charter. The Security Council is reportedly reflecting on measures to stop the use of toxic chemicals as a method of warfare through the UN Chemical Weapons watchdog (the OPCW i.e. the Organisation for the Prevention of Chemical Weapons) which was awarded the Nobel Peace Prize in 2013. On March 25, 2015, the OPCW's Turkish Director General Ambassador Ahmed Uzumcu stated that the OPCW was monitoring "the recent reports suggesting that toxic chemicals may have been used as weapons in the Idlib province" of Syria. The OPCW conducted a fact-finding mission in Syria on the use of toxic chemicals during the attacks last month. Such reports are the key to guiding the Security Council on how to address the issue. The US, along with Britain and France, has accused President Bashar al-Assad's regime of using chlorine gas against civilians, but Russia maintains there is no firm evidence that Damascus is responsible. Russia is expected to use its veto in case of any attempt by the EU to impose any sanctions. In any event, President Obama is reportedly very reluctant to get directly involved in the Syrian conflict.

Unanswered ambiguities remain troubling and need to be examined. The Syrian regime has consistently stated that rebels had used chemical weapons on civilians in Aleppo and elsewhere. They have denied the use of chemical weapons in Idlib. In any case, Syria's stockpiles have now been destroyed under the

OPCW/UN supervision. The UN Security Council has been informed of this destruction. If there are no more Syrian stockpiles, the issue is: Are there other stockpiles? Who is supplying these chemical weapons to the rebel forces in Syria? Can these weapons fall into the hands of the ISIS? Does the ISIS already have access to such WMDs? Such questions have reportedly been quietly but persistently raised, including privately in New York. There is speculation that chemical weapons stockpiles of former President Gaddafi in Libya had fallen into rebel hands during the Libyan crisis and are actually circulating among select jihadi groups, including the ISIS, and could make their way in to crisis spots all over the world. Even the Libyan regime or what remains of it acknowledges that though they had subsequently declared these stockpiles as "new discoveries" of Gaddafi's undeclared stockpiles, they were never destroyed completely. The physical verification is not yet complete. Even if a complete destruction takes place, in the absence of information regarding the original stockpiles, one would never be sure whether some fell into the jihadi hands. We now have a situation where Libya is unravelling and could become a failed State. Thus, this troubling prospect remains a daunting challenge which one hopes the international community, or we in India, never need to address. Vigilance should, however, be our catch-word in the context of our own troubling neighbourhood.

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*Ambassador Mukherjee is a former India head of the Executive Council of the Organisation of Prevention of Chemical Warfare.*



## **New suspected chemical attacks reported in Syria, dozens injured**

Source: <http://www.theguardian.com/world/2015/may/08/new-suspected-chemical-attacks-reported-in-syria-dozens-injured>

Syrian activists and a doctor reported Thursday new suspected chemical attacks in the northwestern province of Idlib, leaving several dozens of people suffering from asphyxiation. Mohammed Tennari, a doctor who testified before the UN Security Council last month after

treating a number of victims in Idlib from an earlier chemical attack, said there were at least three separate attacks in the province that injured nearly 80 people.



Tennari, who spoke with The Associated Press from near the border with Turkey, shared field reports from doctors in the three villages that were reportedly hit. The reports said government helicopters dropped barrel bombs containing chlorine on the villages of Janoudieh, Kansafrah, and Kafr Batiekh on Thursday.

Also, the Syrian Network for Human Rights, another monitoring group which is based outside the country, reported the three different attacks, sharing on Twitter images it said were from field hospitals where victims were taken.

The group reported that 69 people were injured in the attacks.

The reports could not be independently



Civilians wear gas masks after a suspected chlorine gas attack on Kansafra village in Idlib province. Photograph: Reuters/Reuters

Tennari is on his way back from the United States where he reported to the council on a



suspected chlorine attack in March that killed three children and their grandmother in the same province.

He is the coordinator for the Syrian American Medical Society, which has volunteer medical personnel treating victims and reporting on attacks in Syria.

verified. There has been an increase in reports of suspected chlorine bombs amid intensified fighting in the province where the rebels have made significant advances against government troops in recent weeks.

Rebel fighters seized the provincial capital and weeks later moved in on a strategic town near the border with Turkey. The government has vowed to restore control.

Tennari said a man in his thirties died Thursday from another suspected chlorine attack in a fourth village in Idlib on May 2. The man's six-month-old baby died in that attack, Tennari said.

Despite condemning such attacks, the United Nations has been unable to follow through with action or assign blame. The rise in attacks comes as the United States is leading an effort to create a way to attribute blame.

On Thursday, the current council president, Lithuanian Ambassador Raimonda Murmokaite, said a "large majority" of members support the US effort and are



ready to move quickly in the next few days. But Syria ally Russia worried whether it will be objective, with Ambassador Vitaly Churkin telling the AP, "They've done their attribution of blame already."

The US and some other council members accuse Syria's government of using chlorine against its own citizens, saying that no other party in the conflict has the helicopters to deliver such weapons. Russia has insisted that more evidence is needed to blame anyone.

Even though the Security Council, badly divided on Syria, came together in 2013 to rid Syria of its chemical weapons program, chlorine was not included in that effort.

The chemical does not have to be declared because it is also used for regular purposes in industry. Chlorine is a poisonous chemical element used as a bleaching agent and for water purification, but in more concentrated form can cause victims to suffocate.

The reports of new attacks came after the International Committee for the Red Cross director of operations, Dominik Stillhart, warned on Thursday that the humanitarian situation in Syria has deteriorated sharply amid intensified fighting in several parts of the country between government forces and rebel groups, as well as among rival opposition factions.

"The fighting is escalating in many parts of the country and more and more people are being

forced to flee their homes. It is causing untold suffering," said Stillhart.

Stillhart finished a two-day visit to the Syrian capital, Damascus, where he met government officials, appealing for more access to areas affected by the fighting, including the violence-torn, besieged Palestinian refugee camp of Yarmouk on the outskirts of Damascus.

The camp has been the scene of clashes between local fighters and the Islamic State group since the beginning of April. It was the latest tragedy to engulf the camp's residents, who have already suffered through a devastating two-year government siege, starvation and disease.

About 18,000 people are still in the camp, a built-up area once home to some 160,000 Palestinians and Syrians. The United Nations over the weekend expressed alarm over the continued fighting, along with the use of heavy weapons, and airstrikes.

Fighting has also intensified elsewhere in Syria in recent weeks, as rebel advances have pushed out government forces from contested areas in the country's south and north. Government troops are pushing back.

On Thursday, Syrian government forces and allied fighters from the Lebanese Hezbollah group took control from Islamic militant fighters of more areas near the Syrian border town of Assal al-Ward.

## International inspectors find undeclared chemical weapons in Syria

Source: <https://www.yahoo.com/digest/20150509/international-inspectors-find-undeclared-chemical-weapons-syria-00948255>

**International inspectors have found traces of sarin and VX nerve agent at a military research site in Syria that had not been declared to the global chemical weapons watchdog**, diplomatic sources report. Samples taken by experts from the Organization for the Prohibition and Chemical Weapons (OPCW) in December and January tested positive for chemical precursors needed to make the toxic agents, the sources told Reuters on the condition of anonymity because the information is confidential.

*This is a pretty strong indication they have been lying about what they did with sarin. They have so far been unable to give a satisfactory explanation about this finding.*

*Unnamed diplomatic source*

In 2013, the United States threatened military intervention against Syria's government after sarin gas attacks in August of that year killed hundreds of residents in Ghouta, a rebel-controlled suburb of the Syrian capital Damascus. But the Damascus government forestalled foreign intervention by agreeing to a U.S.- and Russian-brokered deal under which it joined the OPCW, admitting to having a chemicals weapons program and



promising to eliminate it. The government of President Bashar al-Assad last year handed over 1,300 tonnes of chemical arms to a joint U.N.-OPCW mission for destruction. But Damascus has denied using sarin or any chemical weapons in battle during Syria's continuing civil war. The diplomatic sources said the sarin and VX nerve samples were taken from the Scientific Studies and Research Center, a government agency where Western intelligence agencies say Syria developed biological and chemical weapons.

*Obviously we are working to clarify Syria's declaration. I cannot discuss any details of that process, but in due course the assessment team will issue a report.*

*Peter Sawczak, OPCW spokesman*

## The Company That's Making Over a Billion Dollars Destroying Chemical WMDs

Source: <http://www.fool.com/investing/general/2015/05/09/making-a-billion-dollars-destroying-chemical-wmds.aspx>

May 09 – The international Chemical Weapons Convention bans the production, stockpiling, and use of chemical weapons of mass destruction -- nerve gas, mustard gas, and other chemical nastiness. The United States signed this convention outlawing chemical WMDs on Jan. 14, 1993. Four years later, Congress ratified it.

But 18 years later, we still haven't destroyed all of our chemical weapons.

### Better late than never?

The good news is that this is about to change. Last month, in a little-noticed development, the U.S. Department of Defense announced that it has awarded defense contractor Bechtel \$1.34 billion in additional funding on a contract "for Agent Operations of the Pueblo Chemical Agent-Destruction Pilot Plant (PCAPP)."

According to the Pentagon, "the original contract was for PCAPP facility design, construction, equipment acquisition, systemization, pilot testing, operations, and [eventual] closure of the plant to destroy the chemical weapons stockpile stored at the depot under this contract." April's addition of funds to this original contract appears to mark the plant's shift from production and testing to actual destruction of chemical WMDs.

### Who is Bechtel?

**Boasting \$39.4 billion in annual revenue and ranked No. 4 on *Forbes'* list of America's largest private companies**, the family-owned Bechtel Group specializes in large engineering and construction

projects around the globe. Among its claims to fame, Bechtel helped build the Hoover Dam



One down, 779,999 chemical WMDs to go, as Bechtel spools up the Pueblo Chemical Agent-Destruction Pilot Plant. Photo source: U.S. Army.



back in the 1930s and the Channel Tunnel (or "Chunnel") between Britain and France in the 1990s, and it's currently working on a \$1.3 billion effort to stabilize the 21-story "sarcophagus" containing the exploded Chernobyl nuclear power plant in Ukraine. Simply put, massive engineering challenges, and multibillion-dollar projects, are not something from which Bechtel shies away. Bechtel eats these kinds of projects for lunch.

#### What's for lunch today?

Not long after the Pentagon contract was announced, *USA Today* confirmed that destruction of America's chemical WMDs at the PCAPP is indeed under way. According to the news outlet, Bechtel will have a pile of "about 780,000" mustard gas-filled "shells and mortar rounds" to dispose of.

*USA Today* describes the process of destroying chemical WMDs as "expensive, slow -- and safe." (So one out of three isn't bad.)

#### How slow?

Current technology will permit Bechtel to destroy about six shells per day, with most of the work done by hand. At that rate, however, destruction of all 780,000 munitions on site would take more than 350 years to complete.

There's good news and bad news on that score. A new facility set to open at PCAPP next year will largely automate the process of destroying chemical WMDs and accelerate the rate of bomb disposal to 60 units per *hour*. At

that rate, we're talking a job that could take as little as a year and a half, and the Pentagon is therefore targeting completion by 2019.

So in just a little over four years, the U.S. could theoretically be "chemical WMD-free," and in compliance with the Chemical Weapons Convention.

#### How expensive?

Indeed, Bechtel's \$1.34 billion contract award is expected to run through July 19, 2019, assuming everything goes smoothly with the new plant. But that's not a given -- and neither is the price tag.

*USA Today* puts the cost of the new PCAPP facility at \$4.5 billion, for example. But if you add up the \$1.34 billion contract awarded to Bechtel last month, plus the company's original \$510 million contract to begin work, awarded in 2009, the sum comes to less than half the projected cost of completing PCAPP -- much less operating it.

What's more, referring back to the original contract that Bechtel was awarded, we see that Bechtel was hired to build and run the plant not just through July 19, 2019 -- but all the way through Dec. 25, 2060!

If that's the real timeline the Pentagon is envisioning, and not the 2019 date that's being bandied about in the news, then getting rid of America's chemical WMDs stockpile could take a whole lot longer -- and be a whole lot more expensive -- than anyone thinks.

**Good news for Bechtel. Bad news for taxpayers.**

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## Syria's chemical arsenal: no longer a secret

Source: <http://i-hls.com/2015/05/syrias-chemical-arsenal-no-longer-a-secret/>

The world is blind. Inspectors find -- months after Israel did -- undeclared chemical weapons in Syria.

Many months after Israeli intelligence asserted that Assad fooled the world by falsely promising he got rid of all his stockpiles of chemical weapons, "the world" discovered the truth.

International inspectors have found traces of sarin and VX nerve agent at a military research site in Syria. These findings had not been declared to the global chemical weapons watchdog. This, according to a statement by diplomatic sources last Friday.

Samples taken by experts from the Organization for the Prohibition and Chemical Weapons (OPCW) in December and January tested positive for chemical precursors needed to make the toxic agents.

"This is a pretty strong indication they have been lying about what they did with sarin," one diplomatic source said. "They have so far been unable to give a satisfactory explanation about this finding."

In 2013, the United States threatened military intervention against Syria's government. This followed a sarin gas attacks in





August of that year, which killed hundreds of residents in Ghouta, a rebel-controlled suburb of the Syrian capital Damascus.

Nevertheless, the Damascus government forestalled foreign intervention by agreeing to a U.S.- and Russian-brokered deal under which it joined the OPCW. Syria also admitted to having a chemicals weapons program and promised to eliminate it.

The government of President Bashar Assad last year handed over 1,300 tons of chemical arms to a joint UN-OPCW mission for destruction. Damascus has denied using sarin or any chemical weapons in battle during Syria's continuing civil war.

Then came recent findings. Diplomatic sources said the sarin and VX nerve

samples were taken from the Scientific Studies and Research Center, a government agency where Western intelligence agencies say Syria developed biological and chemical weapons.

It should be noted that in Israel, this hardly came as a surprise. Israeli intelligence claimed from the beginning that Assad fooled the U.S and the U.N and that he still possesses chemical weapons and uses them. "The world wants to be fooled. Maybe now the U.S and the U.N will admit how stupid they were," an Israeli source said. *i-HLS* reported about the Syrian deception months ago. "What else should happen for the world to understand" the Israeli source asked.

## U.S. chemical plants vulnerable to terrorist attacks, putting millions of Americans at risk

Source: <http://www.homelandsecuritynewswire.com/dr20150513-u-s-chemical-plants-vulnerable-to-terrorist-attacks-putting-millions-of-americans-at-risk>



May 13 – The chemical sector is a vital part of the U.S. economy, representing almost 2 percent of U.S. gross domestic product (GDP) and is the nation's greatest exporter. The prominence and importance of the chemical industry as well as the proximity of its facilities to densely populated areas make it a particularly vulnerable target for terrorist attacks, hence the DHS interest and safety rules.

plants

The slow implementation of the Chemical Facility Anti-Terrorism Standards (CFATS) in the United States as part of homeland security and anti-terrorism measures is leaving chemical vulnerable and putting at risk the safety of American citizens, according to

research published in the *International Journal of Critical Infrastructures*.

Maria Rooijackers and Abdul-Akeem Sadiq of the School of Public and Environmental Affairs, at Indiana University-Purdue University, in Indianapolis, explain that post-9/11 efforts to safeguard the chemical sector gave the Department of Homeland Security (DHS) the authority to regulate the safety and security of U.S. chemical facilities. In April 2007 DHS added an interim final rule, the Chemical Facility Anti-Terrorism Standards (CFATS), but the latest information suggests that very few chemical facilities have completed the necessary implementations.

## Assad's Chemical Weapons Could Wind Up in Russia

Source: <http://foreignpolicy.com/2013/09/17/assads-chemical-weapons-could-wind-up-in-russia/>

Sept 2013 – The rockets were filled with military-grade nerve gas and labeled with Cyrillic lettering. They were fired from a weapon issued to the Syrian military and launched from areas controlled by Bashar al-Assad's forces.

A United Nations-organized probe, released Monday, Sept. 16, undermined claims by officials in Moscow that Syria's opposition, and not its regime, was responsible in late August for the world's worst



chemical weapons attack in 25 years. But officials in Washington and allied capitals have not used their conclusions to denounce the Russians, because they are presently asking Russia for a big favor — to destroy Syrian chemicals on its own soil.

Speaking in New York after the report was presented to the U.N. Security Council, the U.S. ambassador to the United Nations, Samantha Power, noted that "some countries" had not accepted the West's view of how the attack had unfolded — and who was to blame. But neither she, nor the British and French ambassadors, assailed Moscow directly.

The reason — spoken in private by U.S. and allied officials but only hinted at publicly — is **that Russia is virtually the only nation that can haul the immense** Syrian chemical arsenal away and destroy it on its own territory, particularly within the ambitiously short time frame suggested by the recent U.S.-Russian agreement in Geneva. The agreement suggests the task be completed by the middle of 2014.

Russia's involvement is by no means certain. But it is a live — and increasingly large — possibility, the officials say.

"Removal may indeed turn out to be an important way to do this, if feasible, under [international] ... supervision," a senior State Department official confirmed to reporters in Geneva on Sept. 14, on condition of anonymity. "Russia is certainly one option.... We have discussed it, but we have to do the technical work now to look at each of these."

In fact, Washington has been asking the Russians for months to do just that, according to U.S. and allied officials, but until now Moscow has shown little enthusiasm for the task. The officials, speaking on condition they not be named, said U.S. studies have shown that Russia has both the skills and industrial capacity to meet the challenges of destroying the Syrian arsenal, which has been estimated at between 1,000 and 1,300 tons of deadly sarin, mustard, and VX nerve gas — equivalent to at least 239,000 gallons, some in vats, some in munitions, some in bunkers.

The United States, Britain, and France have had their eyes on a particular Russian chemical weapons demilitarization plant for some time as a safe destination for the Syrian arsenal. It's located at Shchuchye, 1,000 miles southeast of

Moscow, where its employees have been destroying Russia's own stocks of VX and sarin since 2009.

The plant was constructed over a decade with \$1 billion in funding from

the United States, plus additional cash from Canada, the Czech Republic, the European Union, Italy, Norway, Switzerland, the United Kingdom, and Russia's own budget.

Western governments favor moving the Syrian chemicals out of the country aboard ships destined for Russia because they don't trust Assad's regime to destroy the arsenal in place — a process that would take years. So they're eager to get the chemicals out of Syria quickly, perhaps after first neutralizing some of their components at their current sites. U.S. officials have said those storage sites may currently number around a dozen or so, although the total number of sites involved in the Syrian program — including munitions and chemical factories — has been pegged at around 45.

Russia's participation remains key because two other countries quietly approached by Washington this year as potential hosts for newly constructed demilitarization plants — Turkey and Jordan — have both expressed reservations, several officials said on condition they not be named.

Donald A. Mahley, a former Army officer who was the first U.S. ambassador to the Organization for the Prohibition of Chemical Weapons (OPCW) — the group that oversees chemical demilitarization around the globe — and who helped negotiate the planned destruction of Libya's chemical arsenal in 2004, said the Russian plant could probably eliminate the entire Syrian arsenal in six months to a year. He said that transporting the weapons there — possibly using the Russian military-controlled port facilities at Tartus, in Syria — should also be feasible, noting that in 1985, the United States successfully moved a more dangerous type of its own chemical armaments from storage bunkers in West Germany to a Pacific island destruction facility, without incident.



"Schemes to destroy the stuff in country are a lot more complicated than they look," Mahley said, citing his experience in Libya, where the former regime's arsenal has still not been destroyed, nearly a decade after that country committed to doing so. A plant in the Libyan desert, built by Italians, has periodically experienced mechanical troubles, and its operation was halted during the political tumult there.

U.S. and allied officials say that even before the chemicals are removed from their storage sites, some can be rendered useless as weapons by hydrolysis — adding water and other chemicals — and by burning the less toxic, alcohol-based component of sarin. "Each of these is far less technically complex than destroying the agent itself," a U.S. official told reporters in Geneva.

Mahley compared the task of transporting the resulting liquid to shipping nuclear waste, as opposed to nuclear warheads. "It would not be a vaporizing chemical" that could kill in minute quantities, he said, but "it would really make you unhappy if you got a gram splashed on your arm."

According to a description of the Russian plant by the Parsons Corporation, its U.S.-based designer, the facility "can process small- and medium-sized rocket and tube artillery, ... small rocket and tube artillery munitions and large rocket and missile warheads." Automated machinery drills holes in filled shells, drains them, and neutralizes them by adding a chemical reagent. The waste is then mixed with asphalt and packed in drums for long-term storage.

The plant might have to undergo minor engineering modifications to handle the particular Russian shells. Under the Western proposal, Syria's arsenal would be destroyed there under OPCW inspection. U.S. officials say the mid-2014 deadline to complete the task is really more of a target, given the complexities of organizing the multinational effort. "We believe it is possible," one said. "I think the Russians are a little less ready to say it is possible."

While the West's preference — namely, fast removal of the stocks to Russia — is clear, according to various officials, Russia has yet to be fully convinced. So a joint study with Moscow is underway, a U.S. official said in

Geneva, of the "cost, feasibility, safety, and, above all, speed" of that idea and some alternatives.

"We require further discussions within our government and between the two governments, then ultimately also with OPCW and other partners before getting to a final decision," the official said in Geneva. A colleague there said the "most likely" outcome is "some hybrid" of in-country and out-of-country destruction activities, alluding to neutralizing certain components prior to shipping them out.

Although Russia has been depicted in commentary as reaping rich public relations benefits from the Geneva agreement, the new U.N. report made Russia's past claims that the rebels were likely behind the August chemical attack look embarrassing. In making clear that deadly sarin liquid — detected in blood, urine, and hair samples collected from victims, along with rocket fragments — was delivered from the air, the report effectively ruled out any possibility that rebel forces had obtained and detonated the munitions on the ground.

By asserting that the chemical was used on "a relatively large scale" and deposited by dedicated, carefully made munitions, it also undermined any chance that the rebels somehow cobbled together their own versions of the weapons to perpetrate a hoax on the international community.

Western officials said, moreover, that rocket trajectories detailed in the report were consistent with previous intelligence reporting that the weapons were launched from areas controlled by military forces allied with the Syrian regime.

The report, in short, piled newly incriminating evidence atop claims by U.S. and allied Western officials in the past two weeks that Syrian forces had prepared for the attack by distributing gas masks shortly beforehand and — more sensitively — that Syrian military units had discussed the attack in advance in communications intercepted by foreign intelligence services. It represented an authoritative, independent judgment that this time, unlike in Iraq, U.S. and allied specialists had done their work properly.

"The information provided in that report that the sarin nerve agent



was delivered on rockets" — surface-to-surface rockets possessed only by the Assad regime — "I think makes clear responsibility and reinforces the position that we've taken now for some time," said White House spokesman Jay Carney.

When Russian Ambassador Vitaly Churkin insisted on the opportunity to question the report's principal author after hearing about it from U.N. Secretary-General Ban Ki-moon, Ake Sellstrom — a former Swedish military scientist who had helped inspect weapons

programs in Iraq before becoming the chief investigator in Syria — delivered more uncomfortable news. He told Churkin and the other Security Council diplomats that tests had demonstrated the sarin was of much higher quality than Saddam Hussein ever produced, a circumstance that Western officials said rendered its covert production by the Syrian rebels impossible.

Churkin, in comments to reporters immediately after the presentation, pleaded for additional time to study the report.

## What we knew in 1942 – Chemical Warfare Agents

Source: <http://hazmatnation.com/what-we-knew-in-1942-chemical-warfare-agents/>

A staff member came across the 'Handbook for Air Raid Wardens' published by the Office of Civilian Defense in 1942 after a recent death in his family. We wanted to share some of the information found in a handbook that is over 70 years old.

CHEMICAL WARFARE AGENTS								
REFERENCE AND TRAINING CHART								
CLASS	NAMES AND SYMBOLS	FORM	ODOR	PERSISTENCE	TACTICAL CLASS	PROTECTION	FIRST AID [After removal from gassed area]	PHYSIOLOGICAL EFFECT
LUNG IRRITANTS	MUSTARD <small>S(CH<sub>2</sub>CH<sub>2</sub>)<sub>2</sub>Cl<sub>2</sub></small>	LIQUID AND VAPOR	Garlic, Horseradish, Mustard	One day to one week. Longer if dry or cold.			Undress; remove liquid mustard with protective ointment, bleach paste, or kerosene; bathe; wash eyes and nose with soda solution.	Delayed effect. Burns skin or membrane. Inflammation respiratory tract leading to pneumonia. Eye irritation, conjunctivitis.
	LEWISITE <small>CBrCl<sub>2</sub>·S(CH<sub>2</sub>CH<sub>2</sub>)<sub>2</sub>NH<sub>2</sub></small>	LIQUID AND VAPOR	Geraniums, Mustard	One day to one week. Longer if dry or cold.			Undress; remove liquid Lewisite with hydrogen peroxide, lye in glycerine, or kerosene; bathe; wash eyes and nose with soda. Rest—Doctor.	Burning or irritation of eyes, nasal passages, respiratory tract, skin. Accidental poison.
	CHLORPICRIN <small>ClCH<sub>2</sub>CH<sub>2</sub>NO<sub>2</sub></small>	GAS	Flypaper, urine	Open 6 hours. Woods 12 hours.			Wash eyes, keep quiet and warm. Do not use bandages.	Causes severe coughing, crying, vomiting.
	DIPHOSGENE <small>ClCOC(=O)Cl</small>	GAS	Sillage, Acid	30 minutes.			Keep quiet and warm. Give coffee as a stimulant.	Causes coughing, breathing hurts, eyes water, toxic.
	PHOSGENE <small>COCl<sub>2</sub></small>	GAS	Rotten hay, Green corn	10 to 30 minutes.			Keep quiet and warm, bed rest. Coffee as a stimulant. Loosen clothing, No alcohol or cigarettes.	Irritation of lungs, occasional vomiting, tears in eyes, doped feeling. Occasionally symptoms delayed. Later, collapse, heart failure.
LACRIMATORS	CLORACETOPHENONE <small>C<sub>6</sub>H<sub>4</sub>CO·CH<sub>2</sub>Cl</small>	GAS	Apple Blossoms	10 minutes.			Wash eyes with cold water or boric acid solution. Do not bandage. Face wind. For skin, sodium sulphite solution.	Makes eyes smart. Shut tightly. Tears flow. Temporary.
	BROMBENZYL CYANIDE <small>C<sub>6</sub>H<sub>5</sub>CH<sub>2</sub>BrCN</small>	GAS	Sour fruit	Several days. (Weeks in winter.)			Wash eyes with boric acid. Do not bandage.	Eyes smart, shut, tears flow. Effect lasts some time. Headache.
STERNUTATORS	ADAMSITE <small>(C<sub>2</sub>H<sub>5</sub>)<sub>2</sub>NHAsCl</small>	GAS	Earl Sneak	10 minutes.			Keep quiet and warm. Loosen clothing. Reassure. Spray nose with neo-synephrin or snuff bleaching powder. Aspirin for headache.	Causes sneezing, sick depressed feeling, headache.
	DIPHENYLCHLORARSINE <small>(C<sub>6</sub>H<sub>5</sub>)<sub>2</sub>AsCl</small>	SMOKE	Shoe Polish	Summer 10 minutes.			Remove to pure air, keep quiet. Sniff chlorine from bleaching powder bottle.	Causes sick feeling and headache.

The importance of proper first aid for gas victims cannot be overemphasized. The following are general rules which apply in all cases.

- A. Act promptly and quietly; be calm.
- B. Put a gas mask on the patient if gas is still present or, if he has a mask on, check to see that his is properly adjusted. If a mask is not available, wet a handkerchief or other cloth and have him breathe through it.

C. Keep the patient at absolute rest; loosen clothing to facilitate breathing.

D. Remove the patient to a gas-free place as soon as possible.

E. Summon medical aid promptly; if possible, send the victim to a hospital.

F. Do not permit the patient to smoke, as this causes coughing and, hence, exertion.

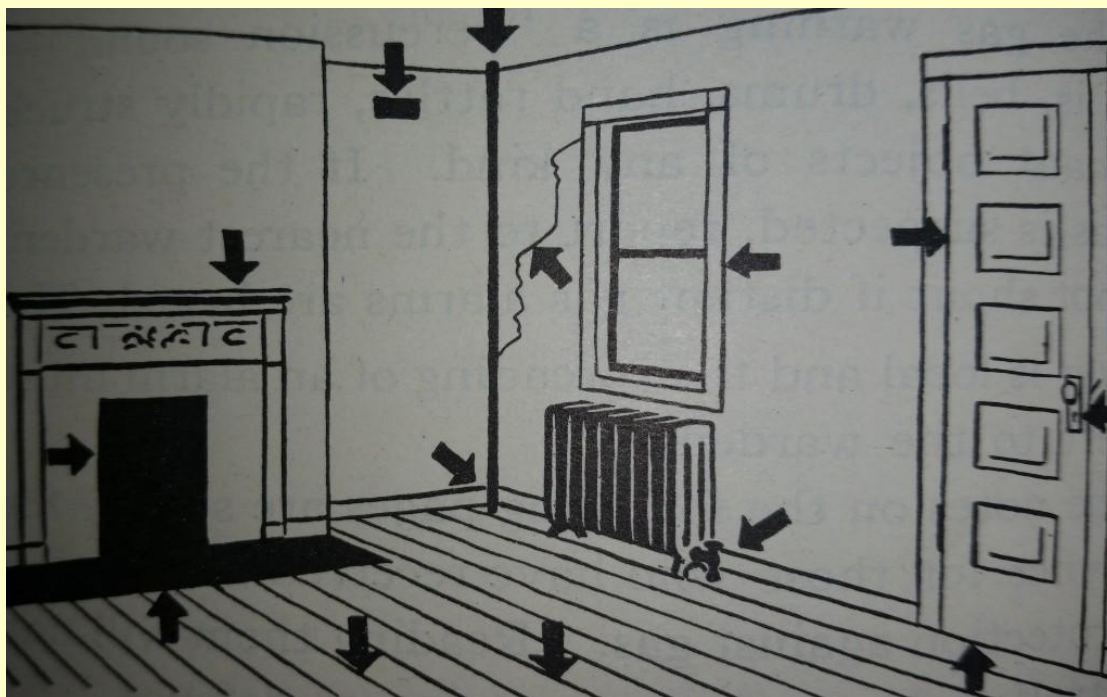
Chemical Warfare Agents, table from Air Raid Wardens Handbook -HazMatNation.com  
The handbook includes a chapter on 'War Gases' which provides the above table. The agents listed are: Mustard, Lewisite, Chlorpicrin, Diphosgene, Phosgene, Cloracetophenone, Brombenzylcyanide, Adamsite, and Diphenylchlorarsine. The table



contains information on everything from chemical structure to first aid and PPE recommendations. The reference chart also includes the 'odor' for each deadly agent.

**As this is written, they (war gases) have not been used against the British or others trained to protect themselves. They have been used against the Ethiopians and the Chinese.**

The handbook cites that at press time, 1942: 'As this is written, they (war gases) have not been used against the British or others trained to protect themselves. They have been used against the Ethiopians and the Chinese.' Mustard gas and another 'poison gas' was used in 1935 in the **Second Italo-Ethiopian War** according to Wikipedia. 'Arsenical smokes were known to the Chinese as far back as c. 1000 BC' as found in Wikipedia Chem Gas. The reference continues with PPE recommendations, decontamination suggestions for 'blister agents' but warns 'reading (the guide-sic) will not by itself make you an expert in gas defense'.



How to properly create a gas-tight room as found in Air Raid Wardens Handbook 1942 – HMN

### Trains Full of Toxic Oil Run Next to Nuclear Missile Silos

Source: <http://www.allgov.com/news/top-stories/trains-full-of-toxic-oil-run-next-to-nuclear-missile-silos-150518?news=856510>



Red, Yellow and Green dots are missile sites. (graphic: Minot Air Force Base Joint Land Use Study)

On February 16, a train full of volatile oil from North Dakota's Bakken fields derailed and caught fire in Mount Carbon, West Virginia. It forced the evacuation of hundreds of families and since two cars went into the Kanawha



River, two water treatment plants were shut



down. The train and its cargo burned for days because there's not really a protocol for putting out a fire fueled by 3 million gallons of volatile crude.

Believe it or not, that train wreck was a best-case scenario. Earlier in its journey from western North Dakota, that train had passed just a few hundred feet from a fully fueled and armed nuclear missile. The consequences of a similar derailment and fire next to a missile silo could have been a true catastrophe.

One-third of the missiles controlled by **Minot Air Force Base in North Dakota** (map) are in the Bakken oil field and the trains carrying much of that volatile output pass in close proximity to many missile sites, according to a report (video) on MSNBC's "The Rachel Maddow Show."

Air Force documents obtained by the show highlight the Pentagon's concern about the

problem. A [Master Conflict Table](#) (pdf) shows a



problem with a Canadian Pacific rail spur that crosses a 1,200-foot easement around a missile launch facility (MLF), or silo. "Construction may cause vibrations that may impact MLFs and includes the presence of civilians adjacent to a MLF, posing potential security concerns. Increases threat from derailment adjacent to MLF. Hazardous contents of rail cars present safety concern within 1,200-foot easement," the entry reads.

A second [table](#) (pdf) puts the danger in more general terms. "Rail oil cars in close proximity to MLFs and MAFs (missile alert facility, or control room) poses a man-made disasters concern," according to the Air Force.

A nuclear expert quoted in the MSNBC report said, "You have a potential disaster on your hands, with not just casualties in the immediate area, but radioactive contamination and fallout all around."



## What Did the U.S. Learn From Ebola? How to Prepare for Bioterrorist Attacks

By Siobhán O'Grady

Source: <https://foreignpolicy.com/2015/04/23/what-did-the-u-s-learn-from-ebola-how-to-prepare-for-bioterrorist-attacks/>

When the Ebola virus spread from Guinea to Sierra Leone and Liberia last spring, the initial international response was labeled a failure. By the time President Barack Obama ordered troops to the affected countries in September, more than 2,400 people were dead.

But in the United States, where major hospitals prepared for an outbreak, there were only four in-country diagnoses, one of which resulted in a death. **And some see the urgency of that response as a lesson in how the government can prepare for another public health hazard: a bioterrorist attack.**

Arizona Rep. Martha McSally chairs a House subcommittee that will examine over the next few months the threat of bioterrorist attacks and U.S. preparedness to respond to them. She told Foreign Policy that even if a disease outbreak and the use of a biological agent in a coordinated attack are not completely analogous, the response strains similar systems.

"We can learn lessons from other outbreaks that are naturally occurring," she said. "We can identify weaknesses in our response and even if it wasn't terrorism, it presses the system at the same level."

What McSally and her colleagues saw as the biggest failure in the response to Ebola within U.S. borders was lack of central command. Bureaucracy, she said, got in the way of providing an effective response for Americans nationwide.

And that Ebola czar Obama named?

"He was a messaging social operative more than anything," McSally said.

Leonard Cole, an expert in bioterrorism who also teaches at Rutgers Medical School, reiterated McSally's concerns about comprehensive national protocol.

In a conversation with FP, Cole noted that in New Jersey and California, for example, governors ignored Center for Disease Control guidelines and insisted those under observation for Ebola stay quarantined for a full 21 days. The CDC said monitoring was

certainly necessary, but total quarantine wasn't always required.

According to Cole, that contradiction was a major breach of protocol for confronting a public health threat. "Rule No. 1 is there has to be an orderly and consistent manner of informing the public," he said.

In 2010, a commission set up to assess national security responses gave the United States a failing grade on its ability to confront a bioterrorist threat.

Today, McSally said, the United States is still only prepared to confront a fraction of the 15 potential biological agents that could be released in an attack. What the Ebola response taught the government, she said, was that effective communication isn't optional next time. And the White House needs to prioritize the naming of a single coordinator for agencies responsible for responding to such an attack.

**A biological threat from the Islamic State or al Qaeda is not necessarily immediate, McSally said, but there are three phases of biological attacks to take into account: isolation, weaponization, and dispersion of the agent.** She said many U.S. cities currently would be left scrambling to respond.

New York, for example, is better prepared for an attack or pandemic outbreak than other cities because its budget allows for trial runs of emergency response systems. But even New York would need a significant increase in federal funding to prepare its entire population for such a scenario. And then there are rural areas to take into account, which would face entirely different challenges.

"We can't possibly expect every single hospital in every single rural area to have the ability to respond to this," she said.

The solution, she thinks, might instead be setting up regional response stations and transportation systems that could evacuate those in need of medical help.

Cole told FP that responding to anthrax scares in 2001 also

55



prepared the United States for future attacks. But “honestly, the average physician is not thinking of anthrax or Ebola today,” he said. McSally, who served 26 years in the Air Force, said preparation for a bioterrorist attack can only begin when Obama is willing to give someone the job. And trying to learn from

mistakes made during the Ebola response sadly reminds her of an old military joke: **“We call them lessons learned,” she said. “But really they’re just lessons identified until we actually learn from them.”**

The BEST part?!

*Siobhán O’Grady is a fellow at Foreign Policy. She joined FP from the Houston Chronicle’s Washington, D.C. bureau, where she reported on border security, drug cartels, prison reform, and all things Ted Cruz. A Boston native, she holds a dual degree in political science and French from Dickinson College and has lived in Morocco and Cameroon. Her work has appeared on WBUR and in the Houston Chronicle, the San Antonio Express, and the San Francisco Chronicle, among others.*

### UAE ready to deal with bioterrorism threats, experts say

Source: <http://gulfnews.com/news/uae/emergencies/uae-ready-to-deal-with-bioterrorism-threats-experts-say-1.1500569>

Infectious diseases such as Ebola could be used as a “biological weapon” but the UAE is prepared to deal with such acts of bioterrorism, a conference in the capital heard on Tuesday. The Ebola outbreak in West Africa has claimed more than 10,000 lives as of last week and biosecurity measures should be in place to stop the misuse of such viruses by bioterrorists, experts said. “We understand the possible misuse of biological agents, which could easily be transported across the borders as part of trade. But the UAE has strict procedures and controls to deal with such threats,” said Dr Rashid Bin Fahd, Minister of Environment and Water. He was delivering the keynote speech at the second Biosecurity Conference organised by the Ministry of Environment and Water in Abu Dhabi. The UAE has criminalised such activities and strict legislations are in place to tackle them. A proper mechanism is in place to address any biosecurity threat and emergencies as part of ensuring national security, the minister said. Martien Broekhuijsen, a biosecurity consultant from the Netherlands, differentiated between biosafety and biosecurity, saying “biosafety is keeping bad bugs away from people whereas biosecurity is keeping bad people away from bugs”. He said people who see bioterrorism as a growing threat think that its sources are available everywhere and a small quantity is enough to cause damage.

However, some others believe that biological weapons are dangerous and difficult to handle, and hence not a major threat, and it is easy to kill bio-agents. But the nations have to be prepared against such threats, Broekhuijsen said. Dr David R. Franz, Former Commander of the US Army Medical Research Institute for Infectious Diseases, said lack of proper legislations is a major problem in maintaining biosecurity. When the US authorities apprehended a scientist in the 1990s for misusing a biological agent, he was punished with 200 hours of community service. The Federal Bureau of Investigation (FBI) found that there was no legislation to punish such crimes, he said. Since then the US has been taking adequate measures to check such crimes. The US has allocated around \$6 billion (Dh22.02 billion ) since 2002 for research in biosecurity, he said. Dr Fiona Thompson Carter, a biosecurity expert from New Zealand, explained the steps her country has taken to check this menace. Nasser Mohammad Humaid Al Yammahi, Director of Media and Public Information at the National Emergency Crisis and Disasters Management Authority, said the media has a major role in maintaining biosecurity. The UAE’s biosecurity strategy has clearly defined the media’s role and guidelines in this regard, he said.





Dr Rashid Hamdan Al Ghafiri, an Emirati expert on biosecurity, said anthrax letter attacks by terrorists in the US in 2001 were a good example of the potential of biological weapons. Soon after the terrorist attacks of 9/11, letters laced with anthrax began appearing in US mail. Five Americans were killed and 17 were sickened in what became the worst biological attacks in US history, according to the FBI. The ensuing investigation by the FBI and its partners — code-named “Amerithrax” — has been one of the largest and most complex in the history of law enforcement.

In August 2008, the Department of Justice and FBI officials announced a breakthrough in the case and released documents and information showing that charges were about to be brought against Dr Bruce Ivins, who took his own life before those charges could be filed. On February 19, 2010, the Justice Department, the FBI, and the US Postal Inspection Service formally concluded the investigation into the 2001 anthrax attacks and issued an Investigative Summary, according to FBI.

**EDITOR'S COMMENT:** The title is not consistent with the content of the article. I am not sure if the country is ready to deal with bioterrorism or in general CBRNE incidents. The military might be but there are some doubts about the civilian sector – especially the medical/health one.

## Germ on the Big Screen: 11 Infectious Movies

Source: <http://www.livescience.com/15982-infectious-disease-movies.html>

News of a disease outbreak or possible pandemic may readily conjure up Hollywood fantasies of horrible disease symptoms, government crackdowns and mass death. The very notion of infection, or viruses and bacteria invisibly taking over the human body, creates a sense of both uncertainty and helplessness that can lend itself to thoughts of doomsday. Movies have not hesitated to play out those worst-case scenarios time and again. Terrible historical diseases such as the bubonic plague make repeat appearances, as do more modern threats such as "Super flu" and Ebola. Disease seemingly goes hand-in-hand with many of our worst nightmares in movies, including vampires and zombies — and experts have pointed out how such fictional scenarios can shape public perceptions of real-life microbes. Fortunately, moviegoers can still get their big screen thrills armed with real-world knowledge from many sources on the Internet and television, not to mention print — and that's perhaps the best vaccination against the contagion of fear.

### Contagion (2011)

Contagion follows the rapid progress of a lethal airborne virus that kills within days. As the fast-moving pandemic grows, the worldwide medical community races to find a cure and control the panic that spreads faster than the virus itself. As the virus spreads around the world, ordinary people struggle to survive in a society coming apart. It's a movie — but the movies' creators seem to have talked to people who actually deal with viruses and epidemics. The masses' reaction to the epidemic rings true,



and the science behind it is sound, harking back to the days of SARS.

### I Am Legend (2007)

New York City becomes the emptied-out backdrop for "I Am Legend," when a re-engineered measles virus meant to cure cancer goes wrong in every sense. A rapidly-mutating virus that goes airborne once again comes into play in helping wipe out the majority of humanity. Only those naturally immune to the virus survive unscathed, along with terribly mutated "Darkseekers" who resemble feral vampires. Based on a story that served as the same inspiration for a 1971 movie called "The Omega Man," this newer version shows the virologist main character (Will Smith) conducting bare-bones experiments to try and find a cure or vaccine, and



uses flashbacks to depict the predictable panic behind an attempted quarantine of Manhattan. But speaking of panic, just remember this — modern humans still have it better than many of their ancestors, despite a host of new ailments.

**The Host (2006)**

A Korean monster movie turns out to be a surprisingly touching family drama, as well as a tongue-in-cheek commentary on the response of individuals and governments alike to disease outbreaks. "The Host" tells of a mutated river monster that supposedly spreads a new virus, not dissimilar to real-world animals that can pass on certain diseases to humans. The monster's first attack causes widespread panic and an overbearing government clampdown complete with anti-bioterrorism units, decontamination efforts and mass quarantine. Individuals become hyperaware and suspicious of any symptoms of sickness, with masks appearing everywhere in public. The movie also adds to the sense of paranoia by making direct references to the real-life SARS outbreaks that struck Asia and reached 37 nations around the world, including the United States.

**28 Days Later (2002)**

Zombie movies since George Romero's "Night of the Living Dead" have explored ideas of infection, but "28 Days Later" gave the genre a modern reboot. Here, Great Britain's downfall comes about through lab monkeys infected by the fictional "Rage" virus, which spreads like the real-life Ebola virus and causes an instant case of rabies-like madness. Throw in a few overly-idealistic animal activists for good measure, and the British Isles are soon overrun by blood-spewing "infected" who attack everyone on sight. Still, experts point out that real-world diseases don't work instantaneously or spread as rapidly as they do in such movies, so don't head for the hills — the filmmakers say that they took some creative license to play on



world diseases don't work instantaneously or spread as rapidly as they do in such movies, so don't head for the hills — the filmmakers say that they took some creative license to play on

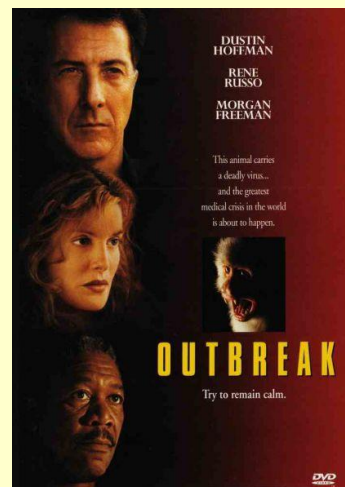
bioterrorism scares. And in real life, Ebola currently poses a far greater threat to gorillas than to humans.

**12 Monkeys (1995)**

This science fiction cult classic depicts a post-apocalyptic future ravaged by an unnamed virus. Human survivors who live underground apparently can't use modern (or future) medicine to develop a vaccine or antiviral cure, but instead try using time travel to prevent the original outbreak that doomed most of humanity. Little information surfaces about the virus, which suits a movie that spends more time exploring Judeo-Christian metaphors, time travel issues and the darker corners of the human psyche. The story also touches on the potential threat of bioterrorism, and perhaps provides a small reminder of how much scientists still have to learn about microbes in this world.

**Outbreak (1995)**

Perhaps few diseases frighten as much on sight as that caused by the Ebola virus, which can lead to massive internal bleeding and virtual liquefaction of unfortunate victims. Fortunately, outbreaks have been few and far between, but still scary enough to inspire Hollywood fare such as "Outbreak." The fictional "Motaba" virus in the movie starts in Africa and eventually reaches the U.S. due to an infected monkey, which leads to a strong military response to quarantine the affected area. Unlike the real-



world Ebola virus, which mainly spreads through contact with body fluids, the fictional Motaba virus mutates and becomes a serious airborne threat. Ironically, this fictional account beat out a never-made rival film called "Crisis in the Hot



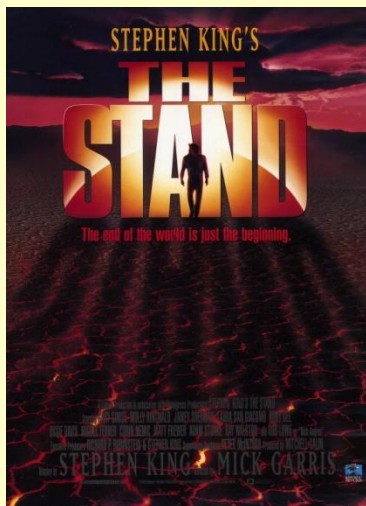
Zone," based on the nonfiction thriller written by journalist Richard Preston.

**And the Band Played On (1993)**

Reality proves just as compelling as fiction in recounting the early years of the AIDS epidemic, as told by journalist Randy Shilts in his book "And the Band Played On." The HBO movie adaptation similarly tells the real story of epidemiologists trying to make sense of mysterious deaths among the gay communities in San Francisco and New York during the 1980s. Government response was slowed by stigmas associated with the gay community, and scientists also spent time debating the nature of the HIV virus and who deserved credit for the discovery of AIDS. The movie shows "how government and public health response may be affected by politics and how sometimes the response happens in spite of it," said Sarah Bass, a public health researcher at Temple University in Philadelphia. Shilts himself died from AIDS complications a year after the film version came out.

**The Stand (1994)**

Flu gets its day in the miniseries adaptation of one of Stephen King's most popular stories, "The Stand," where a human-engineered variant of "Super flu" escapes from a lab and wipes out nearly the entire world population. It's an extreme scenario that strikes uncomfortably close to real incidents in history, such as the 1918 "Spanish flu" pandemic that killed 50 million people worldwide. Some people who had felt well in the morning were deceased by nightfall during that historic episode



— but don't panic just yet. Even the worst-case scenario for the H1N1 outbreak of 2009 does not begin to approach the lethality of the 1918 Spanish flu, let alone threaten to extinguish human life on Earth.

**The Andromeda Strain (1971)**

Extraterrestrial threats don't all need lasers — some arrive as microscopic agents that infect

or kill humans en masse. Based on a novel by the late Michael Crichton, this movie tells of a military satellite which returns to Earth contaminated by a deadly extraterrestrial microbe that kills by causing rapid blood clotting. Scientists soon determine that the foreign invader came from a meteor that struck the satellite. That notion of space rocks carrying extraterrestrial life to Earth holds serious interest for real-life scientists, and some suggest that life on our planet may have some sort of off-world origin. But at this time, NASA worries more about its robotic explorers contaminating Mars or other worlds with Earth microbes.

**The Seventh Seal (1957)**

Few infectious movies have dared face Death itself like "The Seventh Seal." This masterpiece by director Ingmar Bergman tells of a Swedish knight who returns from the Crusades and finds himself face to face with the grim reaper, personified as a pale hooded man. The knight challenges Death to a chess game to play for time, while he confronts existential questions in the time of the Black Death and tries to save a few unmarked souls. It's a movie more notable for metaphorical beauty than historical accuracy concerning either the bubonic plague or medieval Europe, but it captures the human struggle to make sense of dark times, such as during epidemics.

**Nosferatu (1922)**

Infection themes run rampant in modern-day vampire movies such as "Blade" and "Underworld," but one classic silent film paired a vampire legend with the real plague known as the Black Death. The sinister Count Orlok of "Nosferatu" cloaks his vampire feeding through the spread of bubonic plague, a bacterial-caused disease which ravaged Europe and Asia repeatedly throughout history. Famous movie scenes include the plague arriving on Orlok's coffin-laden boat, with rats running ashore and spreading their deadly cargo of microbes. This has eerie historical parallels — gravediggers in 16th century Venice actually made a similar connection between supposed vampires and the Black Death, without having modern medicine's knowledge of the plague.



## Halting response to the 4 Ebola cases in U.S. valuable in preparations for bioterror attacks

Source: <http://www.homelandsecuritynewswire.com/dr20150505-halting-response-to-the-4-ebola-cases-in-u-s-valuable-in-preparations-for-bioterror-attacks>

In 2010 the Commission on the Prevention of Weapons of Mass Destruction Proliferation gave the Obama administration a failing grade for the administration's efforts to prepare and respond to a biological attack. Then came the recent Ebola outbreak in West Africa, which has killed at least 10,000 people to date. There were only four Ebola diagnoses in the United States, one of which resulted in a death, but many public health officials say the U.S. response to in-country cases is a lesson on how government can prepare for a bioterror attack.

"We can learn lessons from other outbreaks that are naturally occurring," said U.S. Representative Martha McSally (R-Arizona). "We can identify weaknesses in our response and even if it wasn't terrorism, it presses the system at the same level." McSally chairs the House Emergency Preparedness, Response, and Communications Subcommittee, which will examine over the next few months, the threat of bioterror attacks and the U.S. preparedness to respond to them.

McSally told *Foreign Policy* that what her subcommittee considered the biggest failure in the response to Ebola within U.S. borders was a lack of central command. Bureaucracy got in the way of executing an effective response and the Ebola czar President Barack Obama appointed was "a messaging social operative more than anything," McSally said, adding that preparation for a bioterror attack can only begin when Obama is willing to give someone the job.

Leonard Cole, director of the Program on Terror Medicine and Security at Rutgers New Jersey Medical School, shares McSally's concerns about a cohesive national response to bioterrorism. He noted that the governors of New Jersey and California ignored Centers for Disease Control and Prevention (CDC) guidelines by insisting those under observation for Ebola be subject to a twenty-one day quarantine. The CDC had declared monitoring was necessary but a quarantine was not required. That contradiction, Cole said, was a major breach of protocol for confronting a public health threat. "Rule No. 1 is there has to be an orderly and consistent manner of informing the public," he said.

McSally said the United States is only prepared to confront a fraction of the fifteen potential biological agents that could be released in an attack, adding that many U.S. cities would be left scrambling to respond. New York is better prepared for an attack or pandemic outbreak because it has spent money on trial runs of emergency response systems, but even that city would need a significant increase in federal funding to prepare its entire population for a bioterror event. Then there are rural areas, which face entirely different challenges.

**"We can't possibly expect every single hospital in every single rural area to have the ability to respond to this," she said. McSally has proposed setting up regional response stations and transportation systems that could evacuate those affected in a bioterror or pandemic event.**

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## Mobile phone video microscope automates detection of parasites in blood

Source: [http://www.sciencedaily.com/releases/2015/05/150506142558.htm?utm\\_source=feedburner](http://www.sciencedaily.com/releases/2015/05/150506142558.htm?utm_source=feedburner)

A research team led by engineers at the University of California, Berkeley, has developed a new mobile phone microscope that uses video to automatically detect and quantify infection by parasitic worms in a drop of blood. This next generation of UC Berkeley's

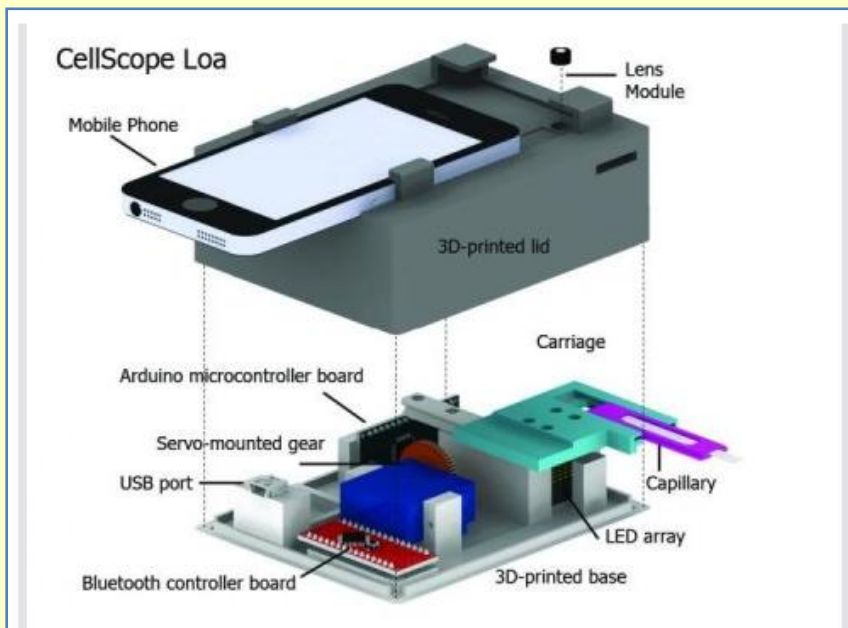
CellScope technology could help revive efforts to eradicate debilitating diseases in Africa by providing critical information for health providers in the field.



"We previously showed that mobile phones can be used for microscopy, but this is the first device that combines the imaging technology with hardware and software automation to

reported in a paper to be published Wednesday, May 6, in the journal *Science Translational Medicine*.

"This research is addressing neglected tropical diseases," said Fletcher. "It demonstrates what technology can do to help fill a void for populations that are suffering from terrible, but treatable diseases."



This is a schematic of the CellScope Loa device, a mobile phone-based video microscope. The device includes a 3-D-printed case housing simple optics, circuitry and controllers to help process the sample of blood. CellScope Loa can quantify levels of the *Loa loa* parasitic worm directly from whole blood in less than 3 minutes.

Credit: Mike D'Ambrosio and Matt Bakalar, Fletcher Lab, UC Berkeley

**Battling parasitic worms**

River blindness is transmitted through the bite of blackflies and is the second leading cause of infectious blindness worldwide. Lymphatic filariasis, spread by mosquitoes, leads to elephantiasis, a condition marked by painful, disfiguring swelling in parts of the body. It is the second leading cause of disability worldwide and, like river blindness, is highly endemic in certain regions in Africa.

The antiparasitic drug ivermectin, or IVM, can be used to treat these diseases, but mass public health campaigns to administer the medication have been stalled because of potentially fatal side effects for patients co-infected with *Loa loa*, which causes loiasis, or African eye worm. When there are high circulating

levels of microscopic *Loa loa* worms in a patient, treatment with IVM can lead to brain or other neurologic damage that can be severe or fatal.

The standard method of screening for levels of *Loa loa* involves trained technicians manually counting the worms in a blood smear using conventional laboratory microscopes, making the process impractical for use in field settings and in mass campaigns to administer IVM.

The serious side effects of *Loa loa* and the difficulty of rapidly quantifying *Loa* levels in patients before treatment make it too risky to broadly administer IVM, representing a major setback in the efforts to eradicate river blindness and elephantiasis.

**Next generation CellScope uses video, automation**

For this latest generation of the mobile phone microscope, named CellScope Loa, the researchers

create a complete diagnostic solution," said Daniel Fletcher, associate chair and professor of bioengineering, whose UC Berkeley lab pioneered the CellScope. "The video CellScope provides accurate, fast results that enable health workers to make potentially life-saving treatment decisions in the field."

The UC Berkeley engineers teamed up with Dr. Thomas Nutman from the National Institute of Allergy and Infectious Diseases, and collaborators from Cameroon and France to develop the device. They conducted a pilot study in Cameroon, where health officials have been battling the filarial, or parasitic worm, diseases onchocerciasis (river blindness) and lymphatic filariasis.

The video CellScope, which uses motion instead of molecular markers or fluorescent stains to detect the movement of worms, was as accurate as conventional screening methods, the researchers found. The results of the pilot study, performed in Cameroon, are



paired a smartphone with a 3D-printed plastic base where the sample of blood is positioned. The base includes LED lights, microcontrollers, gears, circuitry and a USB port.

Control of the device is automated through an app the researchers developed for this purpose. With a single touch of the screen by the healthcare worker, the phone communicates wirelessly via Bluetooth to controllers in the base to process and analyze the sample of blood. Gears move the sample in front of the camera, and an algorithm automatically analyzes the telltale "wriggling" motion of the worms in video captured by the phone. The worm count is then displayed on the screen.

Fletcher said previous field tests revealed that automation helped reduce the rate of human error. The procedure takes about two minutes or less, starting from the time the sample is

inserted to the display of the results. Pricking a finger and loading the blood onto the capillary adds an additional minute to the time.

The short processing time allows health workers to quickly determine on site whether it is safe to administer IVM.

"The availability of a point-of-care test prior to drug treatment is a major advance in the control of these debilitating diseases," said aquatic ecologist Vincent Resh, a professor at UC Berkeley's Department of Environmental Science, Policy and Management. "The research offering a phone based app is ingenious, practical and highly needed."

Resh, who is not involved in the CellScope project, has worked in West Africa for 15 years on the control of onchocerciasis.

The researchers are now expanding the study of CellScope Loa to about 40,000 people in Cameroon.

*Journal Reference: Michael V. D'Ambrosio et al. Point-of-care quantification of blood-borne filarial parasites with a mobile phone microscope. Science Translational Medicine, May 2015 DOI: [10.1126/scitranslmed.aaa3480](https://doi.org/10.1126/scitranslmed.aaa3480)*

## Avelox Approved for Plague

Source: <http://health.usnews.com/health-news/articles/2015/05/08/avelox-approved-for-plague>

May 08 – **Avelox (moxifloxacin) was approved by the U.S. Food and Drug Administration on Friday to treat plague, a rare but deadly bacterial infection that can strike the lungs (pneumonic), blood (septicemic) or lymph nodes (bubonic).**

Only 1,000 to 2,000 cases are reported worldwide annually, the agency said in a news release. It's spread by the bites of infected fleas, or by contact with infected animals or people. However, the *Yersinia pestis* bacterium could be released intentionally as a bioterrorism agent.



Avelox was approved under rules that allow findings from well-controlled animal studies (in this case, African green monkeys) in instances when it isn't ethical or feasible to conduct trials among humans. The disease is so rare that it wouldn't be possible to

conduct adequate trials involving people, the FDA said.

**Avelox's label carries a boxed warning of the potential for tendinitis and tendon rupture, and worsening muscle weakness among certain prone users.** Other potential side effects include allergic reaction, liver damage, blood abnormalities, abnormal heart rhythm and central nervous system problems.

Avelox is produced by Bayer Healthcare Pharmaceuticals, based Whippany, N.J.

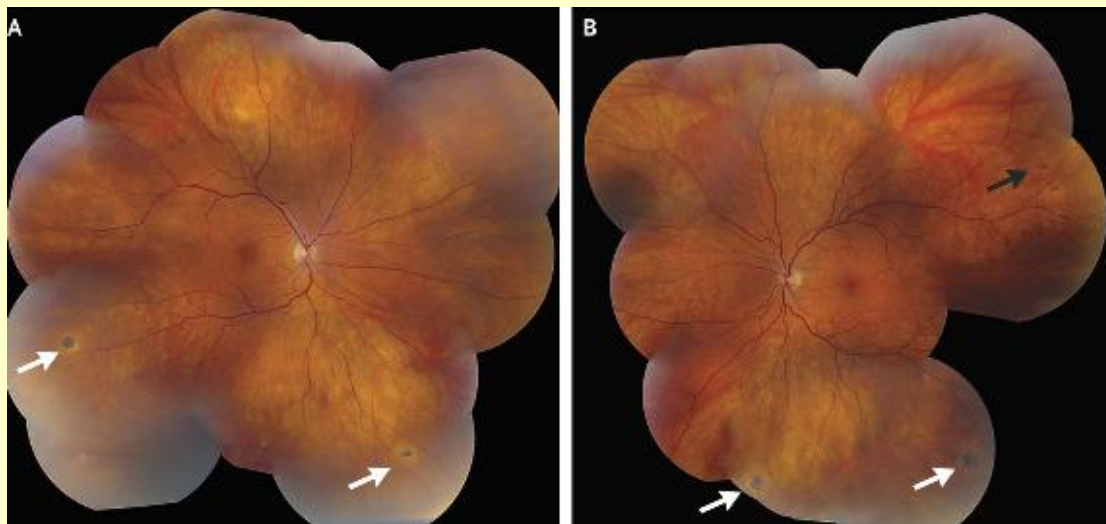
## Persistence of Ebola Virus in Ocular Fluid during Convalescence

By Jay B. Varkey, M.D., Jessica G. Shantha, M.D., Ian Crozier, M.D., Colleen S. Kraft, M.D., G. Marshall Lyon, M.D., Aneesh K. Mehta, M.D., Gokul Kumar, M.D., Justine R. Smith, M.B., B.S., Ph.D., Markus H. Kainulainen, Ph.D., Shannon Whitmer, Ph.D., Ute Ströher, Ph.D., Timothy M. Uyeki, M.D., M.P.H., M.P.P., Bruce S. Ribner, M.D., M.P.H., and Steven Yeh, M.D.

May 7, 2015 DOI: 10.1056/NEJMoa1500306

Source: <http://www.nejm.org/doi/full/10.1056/NEJMoa1500306#t=article>

### Abstract



Montage Fundus Photographs 10 Weeks after the Onset of Ebola Virus Disease.

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Among the survivors of Ebola virus disease (EVD), complications that include uveitis can develop during convalescence, although the incidence and pathogenesis of EVD-associated uveitis are unknown. We describe a patient who recovered from EVD and was subsequently found to have severe unilateral uveitis during convalescence. Viable *Zaire ebolavirus* (EBOV) was detected in aqueous humor 14 weeks after the onset of EVD and 9 weeks after the clearance of viremia.

► Read the full NJM paper at source's URL.

## What overall impact will the Ebola crisis have on global health security?

Source: <http://www.medicalnewstoday.com/articles/293634.php?tw>

May 09 – The Ebola virus outbreak in West Africa has not only illustrated a lack of political commitment to public health, but it has initiated discussions on global health security. A group of leading global health practitioners have now given their thoughts on the impact of the epidemic in a series of essays published in *The Lancet*.

In the series, different perspectives are explored on what can be taken from the Ebola

outbreak, investigating areas such as individuals' access to health care, how the epidemic might increase political commitment to improving health security and how other issues such as antimicrobial resistance are relevant to health security.

David L. Heymann, professor of Infectious Disease Epidemiology at the London School of Hygiene & Tropical Medicine, London, UK,



and lead author of the review, describes health security as "essentially the protection from threats to health."

He states that, throughout history, the approach to threats such as the Ebola epidemic has been to focus on rapid detection of outbreaks and rapid response. This approach, according to Prof.

Heymann, has been the commonly understood conceptualization of health security for centuries.

"But the crisis has also highlighted a second, equally important but less appreciated aspect of global health security - ensuring personal access to health services and products around the world," he states. "This needs to be better recognized as part of the scope of global health security."

**One of the essays in the review suggests that global health security has been politically neglected over the past decade through legal noncompliance from certain countries and through being deemed less important by the World Health Organization (WHO).**

Last month, the leaders of WHO published a statement admitting to faults in how the organization handled the Ebola outbreak, outlining that valuable lessons had been learned and promising to improve how they respond to emergencies.

Another essay argues that the Ebola epidemic is simply the most recent event to illustrate the shortcomings in the medical research and development system regarding its ability to address global health priorities.

The authors claim that three quarters of new medicines on the market add no therapeutic value, and subsequently suggest adopting a system that prioritizes development according to unmet health needs rather than financial gain would be best for boosting global health security.

**Global trade in fake medicine also undermines global health security. Another essay states that one quarter of medicines in low-income countries are either substandard or counterfeit, a proportion that undermines faith in governments as**

**well as their ability to combat infectious and noncommunicable diseases.**

The increasing spread of noncommunicable diseases in particular is proving expensive for some governments. One of the essays argues that this problem could be mitigated by nongovernmental organizations holding major corporations to account, in a similar manner to strategies employed by climate change activists aiming to reduce carbon emissions.

**'No simple definition of health security'**

Only by increasing commitment to improving individual access to health services that are safe, affordable and effective can global health security be achieved, the authors state.

*Lancet* editors Dr. Pam Das and Richard Horton state in a linked comment that the central message of the review is that there is no simple definition of health security:

"It means, variously, human security, the prevention and control of infectious diseases, attention to noncommunicable diseases, revitalizing research and development to produce global public goods, dealing with substandard and falsified drugs, considering conflict and disaster settings, addressing international migration, and building stronger health systems through universal health coverage."

"The complexity of global health security should not induce paralysis," they add. "But it should make us pause before we argue for quick solutions."

Certainly, the Ebola epidemic provides the foundation for important discussions on global health priorities. Another review published in *The Lancet* suggests that the crisis represents a rare political opportunity for institutions like WHO to make reforms.

**"If the WHO fails to lead an effective, well-funded and coordinated response when the next epidemic strikes, it could have devastating consequences in rich and poor countries alike,"**

warn Prof. Lawrence Gostin and Prof. Eric Friedman from the O'Neill Institute for National and





Global Health Law at Georgetown University

Law Center in Washington, DC.



## Possible sexual transmission of Ebola virus

Source: <http://www.medicalnewstoday.com/releases/293454.php?tw>

May 06 – On March 20, 2015, 30 days after the most recent confirmed Ebola Virus Disease (Ebola) patient in Liberia was isolated, Ebola was laboratory confirmed in a woman in Monrovia. The investigation identified only one epidemiologic link to Ebola: unprotected vaginal intercourse with a survivor.

Published reports from previous outbreaks have demonstrated Ebola survivors can continue to harbor virus in immunologically privileged sites for a period of time after convalescence. **Ebola virus has been isolated from semen as long as 82 days after symptom onset and viral RNA has been detected in semen up to 101 days after symptom onset.** One instance of possible sexual transmission of Ebola has been reported, although the accompanying evidence was inconclusive. In addition, possible sexual transmission of Marburg virus, a filovirus related to Ebola, was documented in 1968. This report describes the investigation by the Government of Liberia and international response partners of the source of Liberia's latest Ebola case and discusses the public health implications of possible sexual transmission of Ebola virus.

**Based on information gathered in this investigation, CDC now recommends that contact with semen from male Ebola survivors be avoided until more information regarding the duration and infectiousness of viral shedding in body fluids is known. If male survivors have sex (oral, vaginal, or anal), a condom should be used correctly and consistently every time.**

## Bavarian Nordic Announces Positive Results from Clinical Studies of IMVAMUNE Smallpox Vaccine

Source: <http://www.hstoday.us/single-article/bavarian-nordic-announces-positive-results-from-clinical-studies-of-imvamune-smallpox-vaccine/1bc8d5f7c4a6f16a44bef37219ec781a.html>

May 13 – The same week Bavarian Nordic A/S announced its preliminary Phase 1 results for Ebola Prime-Boost Vaccine, the company also announced results from the first of two pivotal phase 3 studies of the liquid-frozen formulation of IMVAMUNE supporting a Biologics License Application for US approval of its Smallpox vaccine.

In addition, the company announced results from a pivotal Phase 2 study of freeze-dried IMVAMUNE smallpox vaccine supporting the clinical requirements for an Emergency Use Authorization, which would allow for stockpiling of this next-generation of the vaccine.

The company said, “The Phase 3 was designed as a randomized, double-blind, placebo-controlled study in 4,000 vaccinia-naïve subjects. Three thousand subjects were vaccinated with three different manufacturing lots of the liquid-frozen IMVAMUNE formulation (1,000 subjects per lot) and compared to 1,000 subjects that received a placebo.”

“The three lots of IMVAMUNE induced equivalent antibody responses, meeting the primary endpoint of the study, while the favorable safety profile of IMVAMUNE was confirmed in this largest clinical study performed to date,” Bavarian Nordic said, adding that, “Despite close cardiac monitoring of all subjects, no serious adverse reactions were reported among the 3,000 subjects vaccinated with IMVAMUNE, confirming the results of a smaller Phase 2 placebo controlled study that was recently published and clearly differentiates the safety profile of IMVAMUNE when compared to traditional smallpox vaccines (e.g. ACAM2000 approved in the US) that have recorded high rates of cardiac complications in healthy vaccinees (5.73 events per thousand immunizations.)”

Bavarian Nordic said, “The Phase 2 study compared the safety and immunogenicity of a freeze-dried and a liquid-frozen formulation of IMVAMUNE and enrolled 650



vaccinia-naïve healthy subjects who were randomized to receive either formulation of IMVAMUNE. The freeze-dried vaccine induced an equivalent antibody response as the liquid-frozen version, meeting the primary endpoint of the study.”

Also, both formulations recorded a similar safety profile, confirming that the clinical data generated cumulatively in more than 7,600 vaccinated subjects is relevant for both formulations of IMVAMUNE., the company announced.

**“The results provide the final clinical data required to support stockpiling of the freeze-dried version of IMVAMUNE in the US Strategic National Stockpile,”** Bavarian Nordic stated.

“Supported by a contract option of \$22 million exercised by the Biomedical Advanced Research and Development Authority (BARDA) in 2014, Bavarian Nordic is currently working to transfer the freeze-drying process to a new

manufacturing line with a larger commercial capacity,” the company’s announcement stated, adding that, “These manufacturing activities remain on-track to be finalized this year, which is the final step towards meeting the regulatory requirements to stockpile the freeze-dried version of IMVAMUNE.”

Bavarian Nordic President and Chief Executive Officer Paul Chaplin, said, “Completing this pivotal Phase 2 study is a significant step in the transition to the freeze-dried version of the vaccine, which provides a number of advantages for the future procurement and stockpiling, thereby broadening the commercial potential.”

Chapin assured that, “We remain on track to complete the transfer of the manufacturing process which will enable us to start deliveries in 2016, as we look forward to continuing our successful long-standing collaboration with the US government on their public health preparedness.”

## Former agent sues FBI for retaliating against him for criticizing anthrax letters investigation

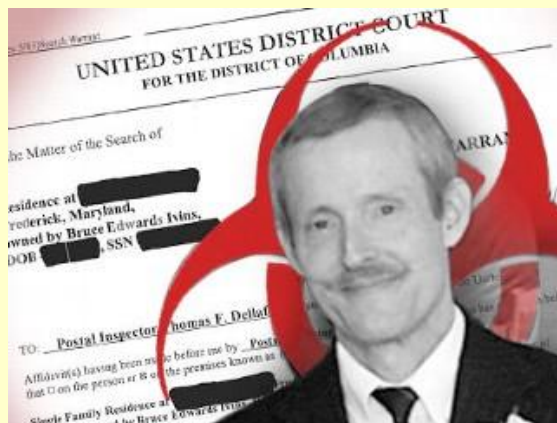
Source: <http://www.homelandsecuritynewswire.com/dr20150518-former-agent-sues-fbi-for-retaliating-against-him-for-criticizing-anthrax-letters-investigation>

May 18 – **Richard L. Lambert, a former senior FBI agent who, for four years, ran the investigation into the 2001 anthrax attacks, has sued the FBI, accusing the agency of trying “to railroad the prosecution of [Bruce E.] Ivins” – the main suspect in the attacks — and, after Ivins’s 2008 suicide, of creating “an elaborate perception management campaign” to bolster its claim that Ivins was guilty.**

Lambert says that the bureau gathered “a staggering amount of exculpatory evidence” regarding Dr. Ivins, which has remained under wraps to this day.

The *New York Times* reported last month that Lambert’s lawsuit also charges that the FBI and the Justice Department forced the Energy Department’s lab in Oak Ridge, Tennessee to dismiss him from his job as senior counterintelligence officer there in retaliation for his critique of the FBI’s conclusions in the anthrax case.

Lambert had worked at the FBI for twenty-four years.



Lambert notes that he believes that Bruce Ivins may well have been behind the anthrax mailings, but that no court would have convicted him on the basis of the evidence gathered by the FBI had he not committed suicide and instead faced criminal charges.

A few weeks after the 9/11 attacks, several envelopes containing anthrax were mailed to U.S. senators and news organizations, causing panic. Five



people died of anthrax poisoning and seventeen were taken ill. The cost of decontaminating the buildings which had to be evacuated exceeded \$1 billion.

In the aftermath of the attack, the FBI launched one of the most comprehensive investigations in the organization's history. Investigators initially zeroed in on a former Army scientist and physician, Dr. Steven Hatfill, but he was cleared and eventually reached a \$4.6 million settlement with the FBI for harassment and damages.

The National Academy of Sciences and the Government Accountability Office (GAO) both faulted aspects of the FBI's scientific work on the case.

Lambert, who himself was faulted for focusing for so long on Hatfill as the main suspect in the attacks, now admits that the investigation was hampered from the start.

"This case was hailed at the time as the most important case in the history of the FBI," Lambert told the *Times*. "But it was difficult for me to get experienced investigators assigned to it."

In an interview with the newspaper he said that the investigation was understaffed and that it suffered from turnover. Moreover, twelve of the twenty agents assigned to the case had no prior investigative experience. For a case depending on scientific forensics, the FBI gave the investigators little by way of scientific support: Senior agency microbiologists were unavailable, and two Ph.D. microbiologists who were put on the case were removed for a prearranged 18-month Arabic language course in Israel.

In addition, senior agency leaders were so afraid of leaks that they imposed a level of compartmentalization not seen in other demanding investigative efforts. One result was that investigators often found themselves unable to share or compare notes or findings. Lambert told the *Times* that he highlighted his concerns in a formal 2006 complaint to the FBI's deputy director.

The anthrax in the envelopes was accompanied by letters expressing jihadist sentiments, but the FBI soon concluded that these letters were meant to throw the investigators off, and that the sender was someone inside the U.S. bioterror research establishment. After concluding that Hatfill was

not behind the mailings, attention was directed at Ivins, after investigators concluded that the spores in the envelopes were matched the anthrax powder in a flask in Ivins's lab at Fort Detrick in Maryland.

The more investigators looked into Ivins's life and habits, the more they became convinced he was the culprit. Ivins spent an inordinate amount of time at nights and on weekends alone in his high-security lab in the periods just before the two mailings of the anthrax letters. Moreover, he was in the habit of sending letters and packages under an assumed name from remote locations.

Some of the letters were mailed from a mailbox in Princeton, New Jersey – near the offices of a national sorority in which, for some reason, Ivins showed an unexplained interest.

In July 2008 prosecutors were ready to present their case against him in court – but Ivins, 62, committed suicide at home in Frederick, Maryland before charges could be filed.

A few days later, Jeffrey Taylor, then the U.S. attorney for the District of Columbia, said the government believed "that based on the evidence we had collected, we could prove his guilt to a jury beyond a reasonable doubt."

Lambert, however, insists the FBI also gathered a large amount of exculpatory evidence pointing away from Ivins – but that this evidence was never shared with the public or the news media. He told the *Times* that had the case been presented in court, "I absolutely do not think they could have proved his guilt beyond a reasonable doubt."

He said he could not offer specifics because most of the information was protected by the Privacy Act.

Lambert retired from the agency in 2012 and joined the Energy Department as an intelligence specialist. An FBI ethics lawyer ruled, however, that Lambert's work with FBI agents in his security capacity at the DOE would violate a conflict-of-interest law barring former federal employees from contacting previous colleagues for a year after they had left their government jobs.

The DOE then terminated his contract, and Lambert said he has not been able to find work even though he had applied for more than seventy jobs. His lawsuit notes that other former FBI agents were hired for



identical intelligence positions at the Energy Department, without the FBI's ethics lawyers raising any objections. Lambert told the *Times* that he was singled out for retribution by his

former bosses at the FBI who did not appreciate his candor about the shortcomings of the Ivins investigation.

## Mapping the evolution of Ebola in Sierra Leone

Source: <http://www.medicalnewstoday.com/releases/293716.php?tw>

May 13 – The Ebola virus that is responsible for the current outbreak in Sierra Leone has increased in genetic diversity since its initial introduction to the region, according to a large-scale genetic study in *Nature* this week. This information provides an insight into how the Ebola virus has evolved, which may facilitate efforts to control or prevent infections and could also guide research on new treatments.

Research has suggested that variation in the Ebola virus genome may potentially impact the effectiveness of candidate treatments or attempts to detect the virus. To learn more about how the current Ebola virus is evolving, Wu-Chun Cao and colleagues analysed 175 Ebola virus genome sequences collected from five districts in Sierra Leone during September to November 2014, following a rapid growth of the outbreak. **They find that the genetic diversity of the virus has increased substantially, with the emergence of several novel lineages. They note that the rate of virus evolution seems to be similar to that observed during previous Ebola virus outbreaks.**

The authors conclude that on-going extensive Ebola virus surveillance in West Africa offers a valuable resource for understanding more about the current outbreak, which could help to improve intervention methods.

## Inovio initiates clinical trial with DNA immunotherapies to prevent and treat Ebola

Source: <http://www.medicalnewstoday.com/releases/293821.php?tw>

May 13 – **Inovio Pharmaceuticals, Inc. has announced that the company has initiated a phase I trial to evaluate safety, tolerability and immune responses of Inovio's DNA immunotherapy for Ebola. In previously published preclinical testing, Inovio's DNA-based Ebola immunotherapy protected 100% of immunized animals from death and sickness after being exposed to a lethal dose of the Ebola virus.**

This is the first step in the Inovio-led consortium selected by the U.S. Defense Advanced Research Projects Agency (DARPA) to take a multi-faceted approach to develop products to both prevent and treat Ebola infection. These programs include development and early clinical testing of:

1. Inovio's DNA-based vaccine against Ebola, for which the first study was initiated this week.
2. Inovio's therapeutic DNA-based monoclonal antibody product dMAb™ against Ebola virus infection. This promising new technology has properties that are best suited to respond to an Ebola outbreak in that they could be designed and manufactured expediently on a large scale using proven fermentation technology, are thermal-stable, and may provide more rapid therapeutic benefit; and
3. A highly potent conventional protein-based therapeutic monoclonal antibody (mAb) product against Ebola virus infection.

This initial trial will evaluate Inovio's Ebola immunotherapy (INO-4212) in five groups of healthy subjects receiving INO-4212 and its components (INO-4201 and INO-4202) alone or in combination with INO-9012, delivered into muscle or skin using Inovio's proprietary DNA delivery technology.

Dr. J. Joseph Kim, President and CEO, said, "The Inovio-led partnership is uniquely positioned to create and test methods to both prevent and treat Ebola virus infections. The global product development experts we have brought together coupled with Inovio's DNA-based vaccines and immunotherapies should meet and exceed the expected outcomes. Demonstrating our commitment and speed, we have begun our first trial just a few weeks after being selected by DARPA to advance this promising program."



## Using artificial intelligence to forecast future infectious disease outbreaks

Source: <http://www.homelandsecuritynewswire.com/dr20150520-using-artificial-intelligence-to-forecast-future-infectious-disease-outbreaks>

May 20 – Machine learning can pinpoint rodent species that harbor diseases and geographic hotspots vulnerable to new parasites and pathogens. So reports a new study in the *Proceedings of the National Academy of Sciences* led by Barbara A. Han, a disease ecologist at the Cary Institute of Ecosystem Studies. Most emerging infectious diseases are transmitted from animals to humans, with more than a billion people suffering annually. Safeguarding public health requires effective surveillance tools.

Global maps of current and predicted reservoir species distribution.

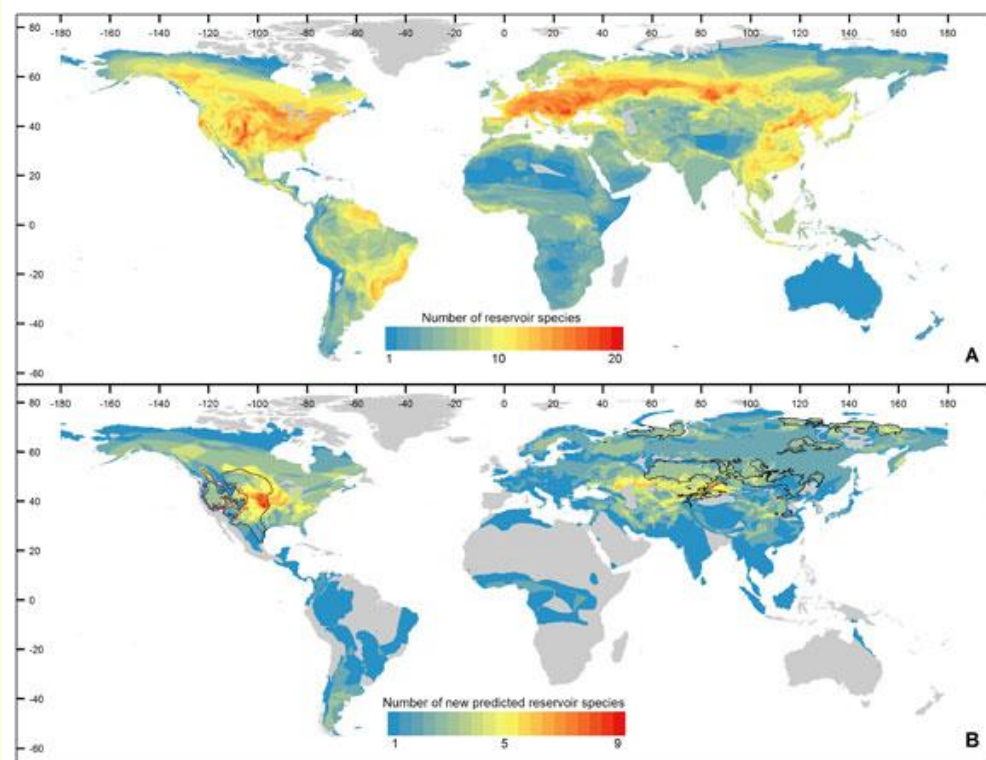
Han comments: “Historically, emerging infectious diseases have been dealt with reactively, with efforts focused on containing outbreaks after they’ve spread. We were interested in how machine learning could inform early warning surveillance by revealing the distribution of rodent species that are effective disease reservoirs.”

With University of Georgia Odum School of Ecology colleagues John Paul Schmidt, Sarah E. Bowden, and John M. Drake, Han employed machine learning, a form of artificial intelligence, to reveal patterns in an extensive set of data on more than 2,000 rodent species, with variables describing species’ life history, ecology, behavior, physiology, and geographic distribution.

**A Cary Institute release reports that the team developed a model that was able to predict known rodent reservoir species with 90 percent accuracy, and identified particular traits that distinguish reservoirs from non-reservoirs. They revealed over**

**150 new potential rodent reservoir species and more than fifty new hyper-reservoirs — animals that may carry multiple pathogens infectious to humans.**

“This study shows the value of bringing new



analysis techniques together with big data,” commented study co-author John Drake. “By combining ecological and biomedical data into a common database, Barbara was able to use machine learning to find patterns that can inform an early warning system for rodent-borne disease outbreaks.”

With Han explaining, “Results equip us with a watch list of high-risk rodent species whose intrinsic traits make them effective at carrying infections transmissible to people. Such a list is increasingly important given accelerating rates of environmental change.”

Among the take home messages: rodents are not created equal in their ability to transmit disease. The riskiest reservoir species are those that mature quickly,



reproduce early and often, and live northern temperate areas with low levels of biodiversity. The paper adds to the growing body of knowledge that 'pace of life' affects infection tolerance in animals.

"Biologically-speaking, species that bear as many offspring as possible in a shorter period of time may tend to invest fewer resources in immune response compared to slower-living animals. This could make certain rodent species more effective disease reservoirs," notes Han.

Geographic areas found to have a high diversity of rodent reservoirs included North America, the Atlantic coast of South America, Europe, Russia, and parts of Central and East Asia. Predicted future hotspots of rodent reservoir diversity spanned arctic, temperate, tropical, and desert biomes, including China, Kazakhstan, and the Midwestern United States. A majority of new reservoir and hyper-reservoir species are predicted to occur in the upper latitudes.

"It was surprising to find more emerging rodent-borne diseases predicted for temperate zones

than the tropics — given assumptions that the tropics are where new diseases originate," Drake commented. "This result shows how data-driven discovery can correct such stereotypes."

Findings provide a basis for targeted surveillance efforts, which are vital given the cost of monitoring for emerging infectious diseases. Han notes, "Turning our predictions into preventative measures will require collaboration with experts on the ground. It's where the real work begins. A start would be to look at the newly predicted rodent reservoirs and assess which have increasing contact with people through activities like urbanization, agricultural and hunting practices, and displacement from political or climate instability."

The release notes that the machine learning techniques applied in this study are currently being used to explore new questions, including potential reservoirs of Ebola virus and other filoviruses.

— *Read more in Barbara A. Han et al., "Rodent reservoirs of future zoonotic diseases," Proceedings of the National Academy of Sciences (10 February 2015)*

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## What is EMMA?






Source: <https://emma.ecdc.europa.eu/Pages/home.aspx>




required.


EMMA is a user-friendly mapping application created by ECDC to support epidemiologists and public health professionals worldwide. You can use EMMA without owning any GIS software and without the need to manually process complex geo-spatial data. EMMA also provides a geocoding tool to facilitate mapping of national and subnational areas worldwide. Free registration is

### With EMMA you can:

-  **Map data at national and subnational level**, based on the NUTS territorial units for statistics from EUROSTAT for European Union countries, and the GAUL administrative units from UN-FAO for the rest of the world, together with GADM and OpenStreetMap (Administrative boundaries: © EuroGeographics © UN-FAO © Turkstat © GADM © OpenStreetMap). [Disclaimer](#)
-  **Generate polygon and point symbol maps** choosing from different methods of data classification, data symbolisation and colour codes.
-  **Combine multiple layers** in the same map.
-  **Export map images** (JPG and PNG format) for reports and presentations.
-  Create EMMA map projects that can be **saved, updated and shared**.



 Browse public GIS servers and **access ready-to-use map services.**

 Search and display **locations of interest.**

## Doctors Link Risky Burials to Ebola Rise in West Africa

Source: <http://www.nytimes.com/2015/05/20/world/africa/ebola-cases-rise-guinea-sierra-leone-after-steep-drop.html?smid=li-share>

May 19 – Only days after declaring the lowest number of new Ebola cases in Guinea and Sierra Leone this year, officials at the World Health Organization said Tuesday that there had been a nearly fourfold increase during the most recent week of reporting, to about 35 new cases.

With Liberia, the other West African nation at the center of the epidemic, being declared free of Ebola this month, the recent drop in infections in Sierra Leone and Guinea had offered hope that the worst Ebola outbreak in history might end soon.

Officials warned against reading too much into the latest uptick, given the steep overall decline in Ebola cases. As recently as the week of March 15, there were 95 new cases in Guinea alone. A May 13 report showed the lowest weekly total this year: nine new cases, seven in Guinea and two in Sierra Leone.

**Health officials said that sharp falls and rises were normal as an epidemic approached its end. But they also said that some persistent risky practices, like unsafe burials of Ebola victims in Guinea, had contributed to the rise.**

Most of the new cases, about 27, are in Guinea, and one area in particular is a problem spot: the Forecariah district southeast of the capital, Conakry. It is far from where the outbreak started, in Guinea's Forest Region, but it is in an area where there has been resistance to the sanitary burials necessary to contain Ebola.

"We've been concerned about a number of cases coming from there, of people dying in the community," said Dr. Margaret Harris, a spokeswoman for the W.H.O., referring to the failure to turn corpses over to the authorities in Ebola hot spots, a refusal that has bedeviled health officials since the outbreak began.

"There is still some concern that there are unsafe burials going on," she said. "The burial issue is still a very tough one."

Dr. Harris said a team of experts had been sent to the Forecariah area to help combat the spread of the disease.

"It doesn't surprise us that within the tail of the epidemic there are peaks and valleys," said Brice de la Vigne, the Brussels operations director of Doctors Without Borders, which has led the response to the epidemic over the last 14 months.

"This is not scaring us beyond reason; it is normal," Mr. de la Vigne said, but "we know that there are still people who are contaminating themselves at funerals."

Adding to the cases are renewed efforts by officials to find the sick, said Sylvie Jonckheere, a Doctors Without Borders official in Conakry. "They've been doing a roundup," she said. "They have plenty of people looking for the sick in the villages. It's not really different from what we've seen with Ebola in the past."

It is not a coincidence that the disease is lingering longest in Guinea, where the outbreak began 18 months ago. In Guinea, resistance to the intervention of outsiders — doctors, health officials, politicians — has been stronger than in either Sierra Leone or Liberia.

Guinea has reacted with occasional violence to efforts to contain the disease. In the Forest Region, eight officials and journalists were killed by villagers during an anti-Ebola rally in September. Before that, doctors and health officials were repeatedly attacked, and villages were classified as "closed" or "open" by health officials, depending on whether they would allow outsiders in to fight the disease.

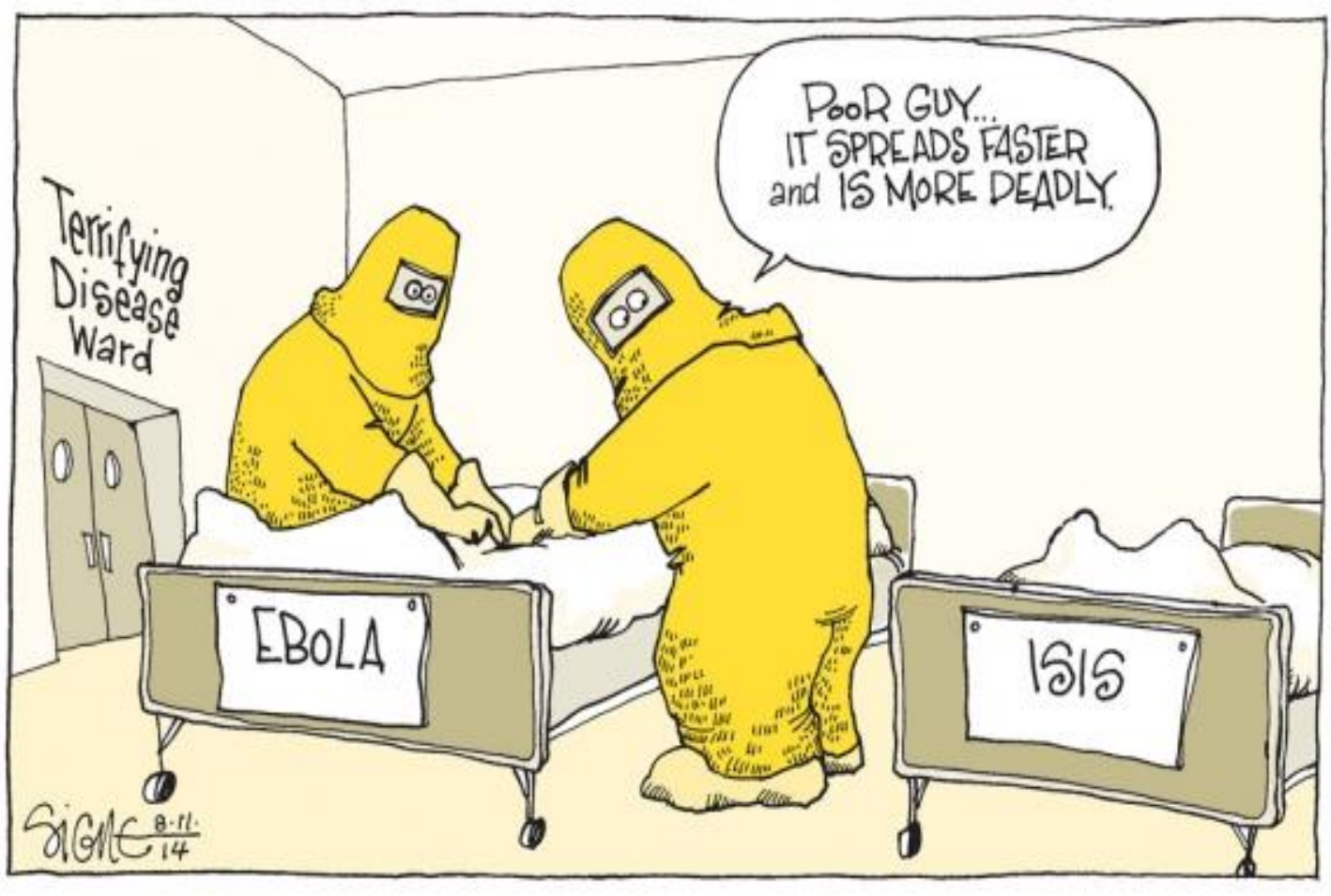
More than 11,000 people have died of Ebola in the three countries, and there have been over 26,000 confirmed, probable and suspected cases, according to the W.H.O.'s May 13 situation report on the epidemic.

But one telling statistic in the report indicates how sharply the



Ebola epidemic has dropped off: Out of 55 districts in the three countries that had reported

at least one case of the disease, 43 have not reported a single one for more than six weeks.







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