Syrian CWAs – Are they under control?

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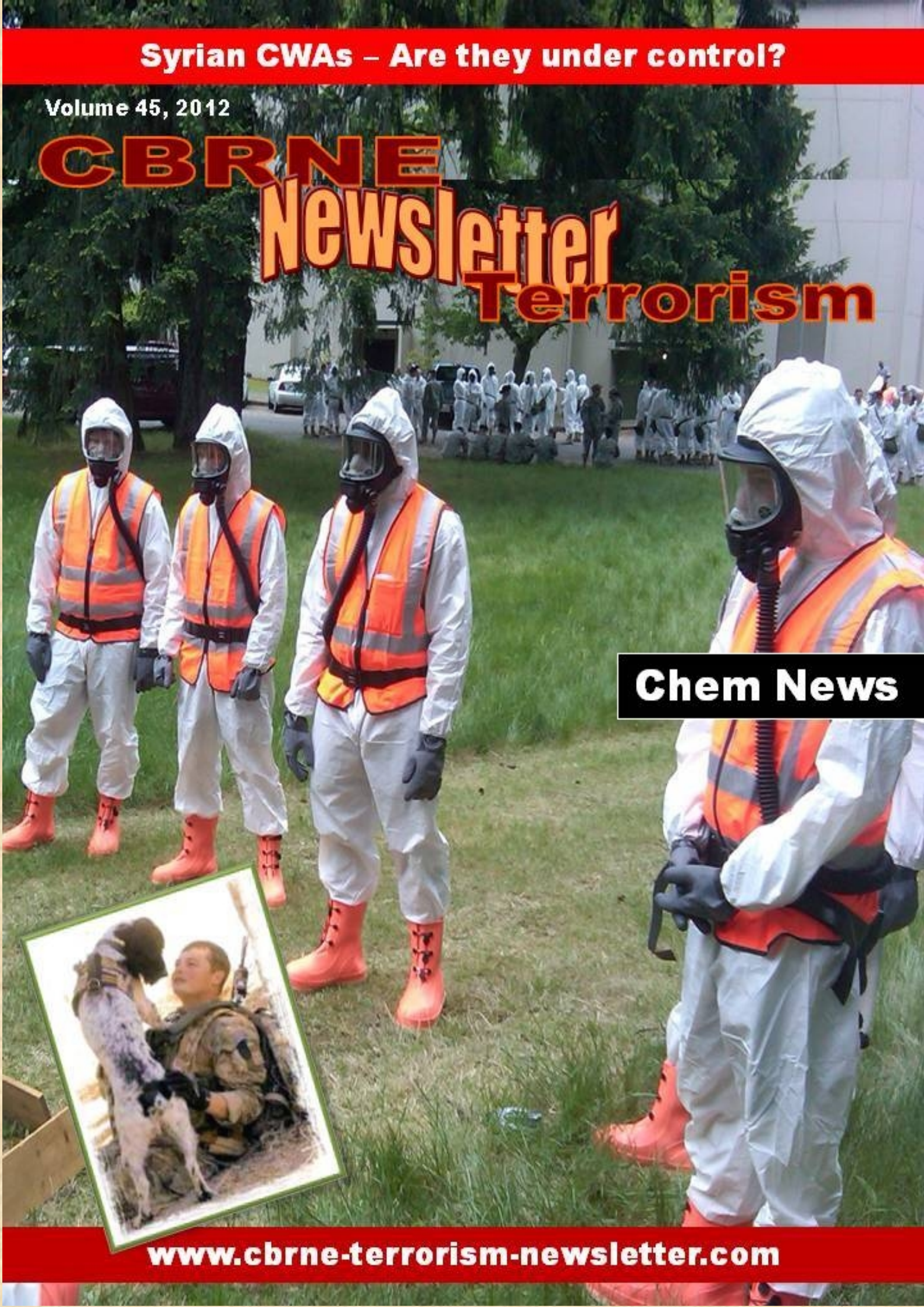


Chem News

www.cbrne-terrorism-newsletter.com

Al Qaeda targets Riyadh, Jeddah and Sderot. Saudi cell had chemicals

Source: http://www.debka.com/article/22308/Al-Qaeda-targets-Riyadh-Jeddah-and-Sderot-Saudi-cell-had-chemicals

For the first time, a thread links the three rockets which hit the Israeli town of Sderot Sunday, Aug. 26, slightly injuring two workmen, and the two terrorist cells captured in Riyadh and Jeddah, Saudi Arabia on the same day, debkafile's counter-terror sources report. Both events were conceived by Al Qaeda of the Arabian Peninsula. AQAP has ordered its Sinai cells and Egyptian and Palestinian offshoots to step up their attacks from Sinai and the Gaza Strip.

Found in possession of terror cells in Saudi Arabia

By three happenings Sunday, AQAP broke new and menacing ground:

1. Three Qassam missiles fired at the industrial zone Sderot shares with Shear Hanegev ushered in a Gaza-based anti-Israel offensive launched by the "Shura Council in the Jerusalem Area" - the umbrella organization of all the Salafi groups operating in Sinai and the Gaza Strip.

This group's 6,000-strong force of well-armed terrorists is commanded by an Egyptian by the name of Hisham Saydani. Al Qaeda has dubbed him Abu al-Walid al-Maqdisi. He and his lieutenants serve as liaison between the Sinai cells and AQAP headquarters in Yemen.

2. Hamas held Saydani in a special security prison cell in the Gaza Strip until two weeks ago when, for some unknown reason, which US, Egyptian and Israeli counter-terror agencies are trying to discover, Hamas let him go. His first action was to set up the Shura Council's attack near Rafah, in which 16 Egyptian troops were killed and the Kerem Shalom crossing barrier into Israel was rammed. The gunmen were liquidated before they reached their target: the IDF Bedouin Reconnaissance Battalion's command base nearby.

This operation was designed at the highest AQAP command level.

Suspecting that at least three of the perpetrators had gone to ground in the Gaza Strip, Egypt demanded that Hamas hunt them down and arrest them. The Shura Council's three-missile volley against Sderot was its way of warning Hamas to call off the hunt or else the missile fire would continue and bring Israeli retribution down on the Hamas-ruled enclave. The same tactic was behind the firing of two Grad missiles against the southern Israeli resort and port town of Eilat Friday, Aug. 17. That too was an al Qaeda warning to Cairo to call off the Egyptian military's pursuit of Salafi terrorists in Sinai or else more missiles would be loosed against southern Israel.

Two days later, Israel placed Eilat under the guard of an Iron Dome missile defense battery.

Following these two incidents, al Qaeda's Shura Council announced that Israeli towns would be held hostage for the halting of Egyptian and Hamas military pursuit of its members in Sinai and the Gaza Strip, which must stop forthwith.

3. Sunday, too, the Saudi Interior Minister announced the busting of two al Qaeda cells in the capital Riyadh and the Saudi summer capital of Jeddah on the Red Sea, which were plotting attacks on Western targets, and local security forces and public places in the kingdom. There were eight arrests, two Saudis and six Yemenis.

Saudi sources disclosed that they were members of AQAP, operating under the orders of the organization's headquarters in Yemen. Found in their possession were weapons and explosives and also chemical substances for loading into explosive charges.

This is the first evidence since 2002, when a bomb packed with poison chemicals was detonated by Palestinian suicide killer in Jerusalem, of the use of chemical weapons by Middle East terrorists. It is feared that those weapons may also have found their way to Sinai.

The Chemical Threat to America

By Christine Todd Whitman

Source: http://www.nytimes.com/2012/08/30/opinion/the-epa-can-fix-the-chemical-flaw.html?_r=1

Since Sept. 11, 2001, the American government, under two presidents, has taken unprecedented steps to ensure the safety of its citizens. Unfortunately, more than a decade later, a major flaw in our national security remains, leaving millions of Americans at risk. It's a flaw that policy makers have known about for years but not yet done enough to fix.

Hundreds of chemical plants and other facilities maintain large stockpiles of dangerous substances and are in or near major American cities like New York, Los Angeles and Chicago, as well as many smaller but no less important towns. According to the Environmental Protection Agency, a deliberate release of these chemicals at just one of these plants could threaten the health and lives of hundreds of thousands of people.

In the immediate aftermath of the terrorist attacks, there was bipartisan support for addressing the vulnerabilities posed by these chemicals. After all, even small chemical accidents involving poison gas can result in the evacuation of an entire community. As the head of the E.P.A. at the time, I knew what could happen, if a terrorist were to target a chlorine gas facility, to the hundreds of thousands of people living downwind. This knowledge spurred the agency to take action.

We considered using existing authority in the Clean Air Act to reduce the vulnerability of chemical facilities to acts of terrorism, primarily by requiring facilities to evaluate the use of safer chemicals and processes. After considerable internal discussion, however, we decided that the best way forward was to enact legislation that would give the E.P.A. additional authority to do so. Unfortunately, and much to my frustration, after a long, multiagency effort, the White House declined to endorse a draft bill, and Congress did not act on its own.

This has now become a 10-year battle. Today, Congress is hopelessly gridlocked on extending the inadequate homeland security appropriations statute that currently regulates the industry.

And yet I am encouraged, because the E.P.A., under its current administrator, Lisa P. Jackson, is once again seriously considering addressing chemical facility security. In March, the National Environmental Justice Advisory Council urged the agency to "use its authority under the 1990 Clean Air Act ... to reduce or eliminate these catastrophic risks." This is the right thing to do, and it is a step that the E.P.A. could take right now. All the agency needs is the support from President Obama to use its Clean Air Act authority.

The conventional wisdom in an election year is that nothing will get done until after the election. I believe, however, that the current administration, which is on record supporting these disaster prevention policies in the context of security legislation, must not wait any longer. Reducing the vulnerability of these facilities to terrorism is not about politics — it's about public safety.

The current chemical security statute is inadequate to the task. The policy bars the Department of Homeland Security from requiring some specific security measures, like the use of safer chemical processes, and exempts thousands of dangerous chemical

facilities, including all water treatment plants and refineries located on navigable waters, from complying with even the weakest security measures. Since 2009, both the E.P.A. and the D.H.S. have been asking Congress for authority to require safer chemical processes and eliminate these wholesale exemptions.

Fortunately, the Clean Air Act does not contain any of those limitations or loopholes. It obligates facilities handling the most dangerous chemicals to prevent catastrophic releases to surrounding communities. This could allow the E.P.A. to require chemical facilities at risk of attack to switch to safer alternatives best suited those individual plants' needs.

These alternatives are widely available and cost-effective, and some facilities have made these changes already. Soon after 9/11, Washington's wastewater treatment plant converted from chlorine gas to safer liquid bleach. Several other water treatment plants have switched from sulfur dioxide gas to liquid bleach and sodium bisulfite. Most recently, the Clorox Company converted its facilities in the United States from chlorine gas to liquid bleach as well. In California, several power plants made the transition from ammonia gas to liquid ammonia. Taken together, all of these plants have eliminated risks to millions of Americans. Now we need to promote the use of such safer alternatives nationwide, to eliminate catastrophic risks and make our chemical facilities less attractive terrorist targets.

It would not take an elaborate plot by Al Qaeda to endanger many lives. In the past few years, we have already seen too many accidents, homegrown incidents and numerous warnings from the Department of Homeland Security. We've got to draw the line. It's both good policy and good politics for the Obama administration to act to secure the nation's chemical plants now.

***Christine Todd Whitman**, a former governor of New Jersey and head of the Environmental Protection Agency, is a consultant on energy and environmental issues.*

Eight police officers rushed to hospital after inhaling 'poisonous' fumes from heroin and petrol in drugs den raid

Source: http://www.dailymail.co.uk/news/article-2196230/Eight-police-officers-rushed-hospital-raiding-drugs-den-poisoned-cocktail-heroin-PETROL.html?ito=feeds-newsxml

Eight police officers were rushed to hospital this morning after raiding a suspected drugs den and being knocked out - with a cocktail of petrol and heroin.

The police burst into the house in Bordesley Green, Birmingham at around 12am this morning to uncover a £250,000 haul of drugs.

But within seconds they were vomiting after being hit with the toxic vapour from suspected heroin mixed with petrol that was poured onto the carpet.

Police said they were looking into whether the mixture was an attempt to use it as a 'weapon' when it was poured onto the carpet.

West Midlands Police said they attended the address with officers from the Serious Organised Crime Agency (SOCA), who executed a search warrant in relation to illegal drugs.

They kicked in the door at around midnight and arrested three men, aged 21, 27 and 34 on suspicion of conspiracy to possess a controlled drug with intent to supply.

Officers said they seized a 'very large quantity' of suspected Class A drugs with an approximate street value of around a quarter of a million pounds.

While the arrests were being made, the officers were overpowerd by the

unknown substance, which caused sickness and breathing difficulties.
In total 11 people, consisting of eight police officers and the three who were arrested, were taken to Heartlands Hospital.
The officers recovered in hospital but were discharged early this morning and the three suspects remain in police custody, where they are being dealt with by SOCA officers.
Firefighters in gas masks scoured the home after the incident but found that there was no further risk posed by the substance.
Parts of the area are still cordoned off and a number of road restrictions are in place while forensic examinations continue.
A spokesman for West Midlands Police said it was not known why the petrol was poured onto the floor mixed with what was thought to be heroin.
He said: 'We don't know if this was a mixture designed to be used as a weapon or if the heroin was being mixed with the petrol as part of the drug-making process.'
The Force's Incident Manager, Chief Inspector Lee Wharmby, said: 'Police officers face threats on a daily basis and, on occasions, criminals will use extreme measures to resist arrest.
'What happened overnight demonstrates the ongoing commitment and bravery of officers as they work to keep our streets safe.
'Events such as this always raise concern in communities, but I want to be clear that this is about drugs alone and not connected to terrorism.
'A long term operation, "No Deal", is already underway targeting drug dealing across Birmingham, during which efforts have been focused on two organised crime groups responsible for the supply of cocaine and heroin in the local area.
'Following a long-term covert operation and a series of coordinated raids during March 2012, a total of 39 individuals were arrested for various drugs offences, with 26 already sentenced for supplying drugs.'

Database Spotlight: Radiological and Nuclear Non-State Adversaries (RANNSAD)

Source: http://www.start.umd.edu/start/announcements/announcement.asp?id=396

Researchers from the National Consortium for the Study of Terrorism and Responses to Terrorism (START) have released a dataset examining the characteristics of non-state users and attempted users of radiological and nuclear weapons.
START Director for Special Projects Gary Ackerman, and former START researchers, Charles Blair and Maranda Sorrells, compiled data on 45 distinct non-state radiological and nuclear perpetrators to form the Radiological and Nuclear Non-State Adversaries Database (RANNSAD).
RANNSAD builds on existing event-based data sets by identifying the non-state actors involved in past radiological and nuclear incidents.
"There is not much information on actors in radiological and nuclear incidents, but rather more on just the incidents themselves," Ackerman said. "RANNSAD shifts the focus to the actors involved."
RANNSAD includes comprehensive information on these identified perpetrators. This information includes characteristics such as:

- Organizational affiliations of the perpetrator,
- Demographics of the perpetrator (gender, age, socio-economic status, education level),
- General motivations of the perpetrator and specific motives for engaging in RN activities,

- RN materials used by the perpetrator and how they were acquired,
- RN activity of the perpetrator,
- Results of the perpetrator's activity,
- Capability level of the perpetrator,
- Lessons learned from the perpetrator's activity.

RANNSAD forms part of a larger START project entitled Anatomizing Radiological and Nuclear Non-State Adversaries. Researchers developed RANNSAD as part of the first phase of the project, which focused on identifying non-state RN actors. Researchers used RANNSAD to develop early-warning indicators of non-state actors who might pursue RN weapons.

Researchers also determined some key characteristics about the 45 actors profiled in RANNSAD. The majority of these perpetrators were lone actors, all were male and most originated from the United States, Russia or Japan.

In terms of type of actor, most non-state actors with nuclear ambitions were either violent jihadists or part of an apocalyptic cult. Jihadist ideology, mental illness, the desire for publicity, personal vendetta or assassination motivated most non-state actors pursuing or using radiological weapons. Researchers also noted that the majority of plots by these actors are interdicted rather than successful.

Researchers hope that these findings will be useful in identification of future radiological and nuclear perpetrators. "The data allows us to project the types of future perpetrator to some degree," Ackerman said. "It also indicates the variety of people, methods and motives involved."

START

DATA BASE at:
http://dvn.iq.harvard.edu/dvn/dv/start/faces/study/StudyPage.xhtml?globalId=hdl:1902.1/16258&studyListingIndex=3_84633c7c2cba81ed71ff6a82d9e3

Why you can't just bomb Syria's WMD into oblivion

Source:http://e-ring.foreignpolicy.com/posts/2012/09/13/why_you_can_t_just_bomb_syria_s_wmd_into_oblivion

After all, last month, Defense Secretary Leon Panetta said, "We plan for a number of contingencies and we have planned for a number of contingencies there," including what to do about the stockpiles. Panetta said the U.S. is monitoring them in coordination with Turkey and Jordan, which share borders with Syria across which the weapons could be smuggled. "We've had -- we've been in discussions with Israel, as well, to determine what -- you know, what steps need to be taken to ensure that those sites are secure and maintained so that those weapons don't fall into the wrong hands."

Secured and maintained, sure. But bombing them? Of course, it's not that simple. There is no clean way to bomb such sites, not entirely. Ask the Pentagon why and the answer is, "We do not comment on intelligence matters," said Lt. Col. Jack Miller, a Defense Department spokesman on Middle East policy.

But here's why, defense officials privately concede: Even if the Pentagon knew the targets, knew that they contained biological or chemical weapons, knew which specific agents were hidden at each site, had the right vehicles and ordinance to penetrate air defenses and fortifications, determined the agents were sufficiently away from populations and in calm wind conditions, determined their use or insecurity was imminent and that there was a high-probability that all of those factors were correct -- well, it's not that simple.

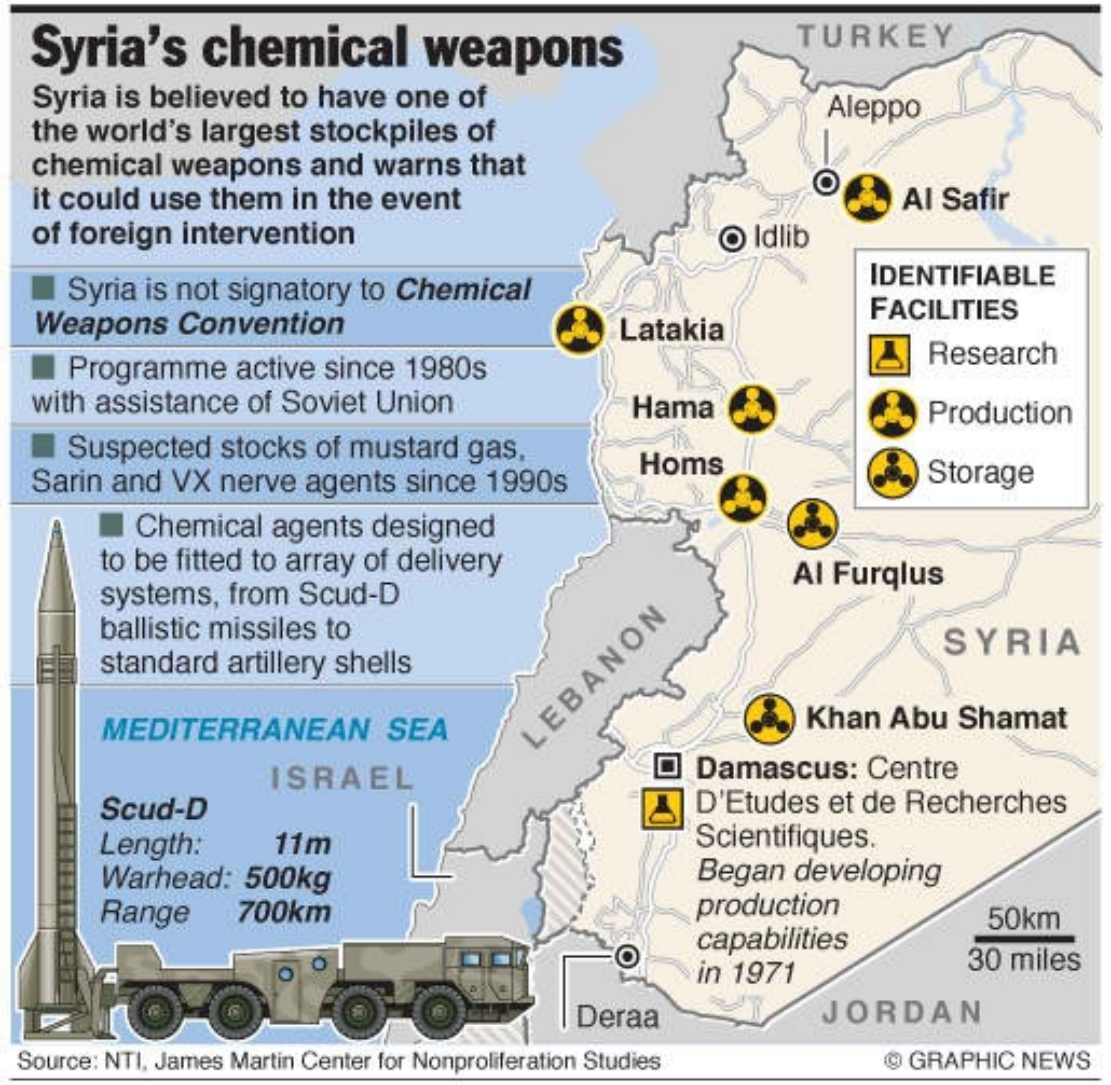
"If you put on a bomb that busts a bunker with success, it's pretty sure that if it's a biological container I think it would be a high-probably that all biological agents would be killed by the blast -- or the heat," said Raymond A. Zilinskas, director of the Biological Weapons Nonproliferation Program at the Monterey Institute of International Studies.

"Chemical agents are different, they don't destroy that easily."

Zilinskas, who is in Washington for a conference on the use of biological weapons at National Defense

University, walked The E-Ring through the possibilities and probabilities that Pentagon planners must weigh before launching any strikes on Syria's weapons of mass destruction

And it depends on the chemical agent. Syria is believed to possess sarin and mustard. Sarin is probably 1,000 times deadlier than mustard, but is also "highly volatile," meaning it



stockpiles.

While Zilinskas said he has little intelligence insight into Syria's actual stockpiles, but there is consensus that it's unlikely Syria possess biological weapons.

"To get a military-useful biological weapon is really a big deal," he said.

Chemical weapons are another story. Whether a bombing resulted in "50 percent destruction or 99 percent destruction" of a potential site, the attack still produces an ash plume that picks up some of the agent and spreads it across the surrounding area, and that's a major problem.

"What if you have wind?" he asked. Or what if the stockpile is near a city.

degrades into harmless components. "So, that would be gone very quickly."

"Mustard is much more difficult to destroy," Zilinskas said. "It is not as effective as sarin, as far as killing people, but it certainly could cause a lot of damage. And it's persistent."

Mustard gas - the same stuff used in World War I -- creates a major logistical burden for the entire area in which it is deployed. The area of an attack on a depot could have to be cordoned off into a red zone and a green zone, with doctors and nurses decontaminating people moving from one to the next.

"Their clothing is going to be contaminated, their skin," he explained. In short, there is no clean

way to do it, and the decontamination is not much easier to handle.
The more important factors to consider before a strike on chemical sites, he said, are much the same for any strike. And we've had this debate before, Zilinskas said, in deciding how to strike Iraq's WMD sites. Planners would need to know with high-probability whether the U.S. had detected all of the targets, or only some. Can they be destroyed? Are they surface bunkers, like in Iraq, or are some underground, or in the middle of population centers? Do they contain only chemical agents or some mixture of items including conventional weapons, which if exploded could contaminate local conditions? Finally, can air defenses be penetrated?
It's an entirely different equation if intelligence detects Syria rolling out chemical warheads on Scud missiles, or using them in rockets or artillery.
"We would probably have selected-targeting that's going to happen," Zilinskas said, should U.S. or allied forces decide to strike. "I don't think it's going to be a complete effort to destroy them all."
In the Pentagon, Miller laid out DOD's position: "Syria has stated that its chemical weapons stockpile remains under Syrian government control. We have made it very clear, the Assad regime has a responsibility to secure these weapons, and the international community will hold accountable any Syrian officials who fail to meet that obligation."
When Panetta was last month asked if securing Syria's chemical and biological sites would involve the U.S. military, however, he replied, "Not at this point."

Simulators to help guard against CBRN threats

Source:http://www.mod.uk/DefenceInternet/DefenceNews/TrainingAndAdventure/SimulatorsToHelpGuardAgainstCbrnThreats.htm

UK manufacturer Argon Electronics has supplied the new systems, including

instrumentation and simulation software, to the Defence Chemical, Biological, Radiological and Nuclear Centre at Winterbourne Gunner on Salisbury Plain.
The Defence Equipment and Support (DE&S) organisation's CBRN protection leader, Phil Strudley, said:

"Acquisition of this latest equipment is an important step for the CBRN training centre, providing our trainers with a range of sophisticated tools that allow us to simulate a wide range of threat scenarios."
The CBRN team worked closely with Argon Electronics to ensure that the contract was fulfilled on time and within budget:
"The equipment was specified, ordered and delivered within 16 weeks. This shows what can be achieved with a good working relationship between our DE&S team and a specialised UK manufacturer," said Mr Strudley.
The Argon Electronics equipment includes the company's latest instruments, simulators and the advanced PlumeSIM wide area CBRN field exercise and desktop training system. This enables instructors to manage multiple remote

simulator instruments under a fully configurable virtual plume, in real-time, over user-selected mapping.
Mr Strudley added:
"Tools such as PlumeSIM will allow us to train personnel faster and more efficiently, giving them the knowledge and experience that will help them perform an even better job once they return to operational duties.
"These advanced simulators will also help reduce the integrated logistic support costs associated with our detectors."

This article is taken from the August 2012 edition of desider - the magazine for Defence Equipment and Support.

Concerns Deepen about Syria's Chemical Weapons as Iran Admits Propping Up Assad Regime

Source: http://blog.heritage.org/2012/09/21/concerns-deepen-about-syrias-chemical-weapons-as-iran-admits-propping-up-assad-regime/

A Syrian defector, who was formerly involved in Syria's chemical weapons program, charged that the Assad regime has mulled using chemical weapons against opposition forces and predicted that the regime would not hesitate to do so as a last resort. Major General Adnan Sillu, who defected to the opposition three months ago, also contends that the regime considered transferring the deadly weapons to Hezbollah, the Iranian-backed Lebanese terrorist group which has assisted the regime's efforts to repress the Syrian opposition.

Israelhas warned that transferring chemical weapons to Hezbollah would trigger an Israeli military response. In testimony before the House Foreign Affairs Committee's Subcommittee on Terrorism, Nonproliferation and Trade, The Heritage Foundation's defense expert Steven Bucci also stressed the need for U.S. contingency planning to address the problem of Syrian chemical weapons if the regime implodes.
The German magazine *Der Spiegel* also reported on Monday that the Syrian Army conducted chemical weapons tests in August at a site near the embattled city of Aleppo. Eyewitnesses claimed that the exercise—which involved firing empty chemical weapons shells from tanks and warplanes—was observed by a delegation of Iranian military officers who were thought to be members of the Islamic Revolutionary Guard Corps.
The commander of the Revolutionary Guards admitted earlier this week that Tehran has deployed members of the elite Quds Force unit to help Syria Assad regime to crush the opposition. Major General Mohammad Ali Jafari said that defending Syria dictatorship is a "point of pride" for Iran.
Jafari described the Shabiha ("ghosts"), the paramilitary thugs that have carried out some of the most brutal attacks against Syrian opposition forces and civilians, as "Syria's Basij"—a reference to the Iranian paramilitary force that has helped crush opposition in Iran. The Quds Force has reportedly helped train and advise the Shabiha, who are known for committing atrocities, rapes, torture and mass executions.
It should not be surprising that Iran's Revolutionary Guards take pride in assisting such a criminal organization, as they have committed many similar crimes inside Iran.

CBRN terrorism by non-state actors

Research Roundtable event features START researcher Lauren Pinson
By Sacha Ginsberg
Source: http://www.start.umd.edu/start/announcements/announcement.asp?id=412

Law enforcement and intelligence agencies cannot ignore the possibility of lone actors and autonomous cells using Chemical, Biological, Radiological, and Nuclear (CBRN) terrorism, even though these non-state actors "hardly demonstrate the behavior of the super-empowered individual of our nightmares," said START Senior Researcher/Project Manager Lauren Pinson during her Sept. 12 Research

Roundtable on CBRN terrorism.

Using START's Profiles of Incidents involving CBRN by Non-state actors (POICN) Database, Pinson and her team compared the threat and usage CBRN weapons between formal terrorist organizations and lone actors and autonomous cells. POICN is a relational, open-source database that includes information on terrorist events relating to CBRN agents alongside relevant weapons and organizational data.

START NATIONAL CONSORTIUM FOR THE STUDY OF TERRORISM AND RESPONSES TO TERRORISM

In evaluating 458 different cases of CBRN events from 1990-2011, the researchers discovered:

- 14 percent of perpetrators in CBRN events fall into the lone actor category. These are individuals or unaffiliated cells which are not linked to any larger groups or that may be influenced by other organizations.
- 51 percent of CBRN events by lone actors and autonomous cells resulted in actual attacks, while only 42 percent CBRN events conducted by formal terrorist organizations resulted in attacks.
- Only the lone actor/autonomous cells perpetrated radiological attacks, however lone actors/autonomous cells have not used any nuclear agents.
- 56 percent of events perpetrated by formal terrorist organizations were committed by organizations with a collective religious ideology, whereas14-18 percent of LA/AC attacks using CBRN terrorism were conducted by those with a religious ideology.

Pinson said that compared to formal terrorist organizations, lone actors are often overlooked because their CBRN attacks are of a lower level of sophistication in terms of weaponry and delivery systems and they are often motivated by narrow causes and individual aims.

"Lone actors and autonomous cells are in some ways more dangerous than their better-resourced cousins in large, formal organizations in that although they may be less ambitious, they intend to be more successful in their radiological weapon pursuits," Pinson said.

Pentagon behind on predicting chemical, biological threats

Source:http://e-ring.foreignpolicy.com/posts/2012/09/24/pentagon_behind_on_predicting_chemical_biological_threats

The Pentagon does not have a clear idea of how adversaries could misuse modern biotechnology and chemical advances, according to the Defense Department's chief chemical and biological defense official.

It turns out the Pentagon can move people faster than the speed of sound but not necessarily faster than the speed of biotechnology developments.

Gerald Parker, deputy assistant to the secretary of defense for chemical and biological defense, told the E-Ring in an interview in his fifth-floor Pentagon office that he is reexamining the department's sizable network of laboratories, Army commands, and DOD offices tasked with the work of chemical, biological, radiological and nuclear (CBRN) protection.

"The pace of the scientific development is so rapid, and trying to understand where adversaries may try to use that advancement in, say, biotechnology, synthetic biology, genetic engineering, how it may be misused, is what we have to try to anticipate," he said. That includes, states, terrorists -- anyone.

"And that's where we don't have a good crystal ball."

Parker manages the back-end of these defenses, the science, the labs, the development, and recently commissioned the National Research Council to help recommend

where to start. The NRC provided him a tall list, including building a basic framework to evaluate their work and better collaboration across DOD agencies.

"Bold moves are needed," the report concluded, "to break the current stagnation that permeates the chemical and biological [science and technology] and acquisition environment. Tweaking the management or refocusing a few projects will not be sufficient."

But it's not a new concern. Congress created Parker's office, long before he arrived, in the early 1990s to oversee an unwieldy network. The current assessment, Parker insisted, is a "natural evolution" to meet changing threats.

"It is evolving and it is changing, and that is a challenge that we face. What a decade ago may have impossible is now within the realm of feasibility for bad actors, to use, say, enhanced agents or new agents from a chemical and biological domain, to cause us harm."

Ten years ago, he said, after the Cold War there was a popular belief that "advances in sciences all are going to be used for good and to help mankind." Not anymore.

"A decade ago we still had a fairly prescribed threat list, and what are some of the pathogens or the chemicals that we need to worry about," he said, and some are still the threats of today. "But as we evolve to the future - how will technology be misused? And that's what we have to turn some attention to."

"The intelligence community has a hard, hard, hard challenge," he said. The Pentagon knows today's threats, he said, but not enough about what could come in the future. "Our job is to try to anticipate that better."

Now Parker wants "much more flexibility" for the Pentagon to develop countermeasures, especially in preparedness for bio-terrorism and infectious diseases. "There really is no hard and fast line between those," he said.

For example, Parker wants DOD to move away from vaccines that use, he argued, "the one drug, one bug approach." The fix is to have a "technology platform"-- remember we're talking about living things here -- able to carry the immunization components of many diseases or pathogens, not just one, such as with the current anthrax vaccine.

Beyond that, DOD needs better ability to scale-up drug and vaccine production to national security levels, and Parker is pushing for a specific network of contracts, acquisitions and close partnerships between defense laboratory and private scientists and biotechnology companies. Parker also is pushing to fast-track past some FDA guidelines that slow vaccine production, a problem he said has caused a "gap" in biodefense.

"We have a plague vaccine in development, we have a botilinum vaccine in development - they're not licensed yet. Those are gaps that we want to close by having a fully-licensed vaccine against those two threats that have been in development."

But, he said, "It takes a long time to develop a vaccine.... We want to close those gaps that are already in phase 2 clinical trials and make sure they get across the goal line."

Additionally, he is promoting "bio-security" practices domestic with non-defense U.S. agencies and international partners.

"We have to worry about state actors and non-state actors," he said, of his Pentagon office. Especially, he said, "Making sure bad actors don't have access to dangerous pathogens."

So DOD is getting more involved in beefing up detection of accidental or intentional outbreaks to security breaches and safe bio-containment at laboratories around the globe.

To get started, Parker said he's going to incorporate some of National Research Council recommendations into his own internal review.

US Army sprayed zinc cadmium sulfide on poor St. Louis residents

Source: http://digitaljournal.com/article/333710

Previously classified documents reveal new details about how and where the US Army sprayed chemical agents over thousands of unwitting residents of St. Louis, Missouri during the 1950s and 60s as part of a series of Cold War experiments.

KSDK reports that the Army sprayed zinc cadmium sulfide over parts of St. Louis, especially over the Pruitt-Ingo housing project northwest of downtown, where 10,000 low-income people, mostly minorities, lived. Around 70 percent of the project's residents were children under the age of 12.

The spraying was meant to simulate the airborne dispersal of biological warfare agents. Residents were not told that they were being sprayed with zinc cadmium sulfide.

"This was a violation of all medical ethics, all international codes and the military's own policy at that time," Lisa Martino-Taylor, a sociologist who has extensively studied secret military experiments from the Cold War era, told KSDK. Martino-Taylor filed hundreds of Freedom of Information Act requests to obtain documents that proved the military used unwitting Americans as human guinea pigs.

"There is a lot of evidence that shows people in St. Louis,... in particular minority communities, were subjected to military testing that was connected to a larger radiological weapons testing program," Martino-Taylor said.

Chief among these was Project MK-ULTRA, a CIA-run 20-year covert program in which radiation, torture, sensory deprivation, hypnosis and drugs such as LSD-- often administered to unwitting test subjects-- were utilized in an ultimately futile attempt at mind control. There were thousands of victims of this immoral, unethical and illegal research.

MK-ULTRA ended by the mid-1970s. President Bill Clinton apologized to victims in 1995.

Zinc cadmium sulfide spraying was by no means limited to St. Louis. The National Academy of Sciences counts some 33 urban and rural areas in which populations were deliberately exposed.

In 1994, the *New York Times* reported that zinc cadmium sulfide was sprayed over an elementary school in Minneapolis, where former students later reported an unusually high number of stillbirths and birth defects.

But the National Academy of Sciences concluded that zinc cadmium sulfide exposure did not pose a threat to human health, although more toxicity studies should be conducted.

Zinc cadmium sulfide was but one of many toxic substances to which

unwitting troops and civilians were exposed during Cold War chemical and biological weapons experiments. During **Project SHAD**, the crews of more than a dozen Navy warships were exposed to sarin (the nerve gas that killed 12 people in the 1995 Tokyo subway gas attack), VX nerve gas (which the Pentagon calls "one of the most toxic substances ever synthesized) and *serratia marcescnes*, which can cause serious infections including pneumonia.

The Army also released a massive cloud of *Serratia marcescnes* over the San Francisco Bay Area in 1950, resulting in an outbreak of illnesses in which one person died.

Project SHAD, an acronym for **Shipboard Hazard and Defense**, was part of the joint service chemical and biological warfare test program conducted during the 1960s. **Project SHAD** encompassed tests designed to identify US warships' vulnerabilities to attacks with chemical or biological warfare agents and to develop procedures to respond to such attacks while maintaining a war-fighting capability. Although classified, the Department of Defense has been actively pursuing declassification of relevant medical information. To date twelve SHAD projects have been evaluated and released for your review.

The SHAD program planned as many as a hundred individual tests and was part of the larger Deseret Test Center program. Many tests were never actually executed. DoD investigators plan to look at all Deseret Test Center's chemical and biological tests conducted between 1963 and 1970. Of the 4,300 sailors known to be involved, to our knowledge, only 622 have been notified.

CBRN defense specialist train Marines to decontaminate with new equipment

Source:http://www.dvidshub.net/news/95713/cbrn-defense-specialist-train-marines-decontaminate-with-new-equipment#.UHWogK5DKko

Marines with 2nd Marine Logistics Group start the new joint service transportable decontamination system, or M26, during a training exercise aboard Camp Lejeune, N.C., Oct. 3, 2012. Servicemembers were graded by chemical, biological, radiological, nuclear defense specialists during a practical application portion of the class in order to receive certification for using the M26.

Taking heavy machinery and trying to get it to start slows down a mission's success. Cranking it for 20 minutes can be stressful and make Marines' work harder, until a push-to-start button fixed the problem.

Marines with 2nd Marine Logistics Group were introduced to the new and improved joint service transportable decontamination system, or M26, here, Oct. 3.

The M26 recently replaced the outdated M17 and is used by chemical, biological, radiological, nuclear defense specialist as a primary decontaminator.

"It's a better piece of equipment to use," said Sgt. Jason L. Stacy, a CBRN defense specialist. "It's just like a new car, all you have to do is push a button to start it."

The M27 weighs approximately 550 pounds and is capable of decontaminating personnel, big equipment and large vehicles from any form of chemical or hazardous substance. It can also be used as a field shower on deployments.

"This is the Cadillac of decontamination systems," said Stacy. "This makes the mission a lot easier, and it accomplishes the mission faster."

CBRN instructors taught approximately 30 Marines throughout various units within the 2nd MLG everything they needed to know to receive certification of the M26.

"I enjoy working with the course and watching the Marines grow throughout the training, as they become knowledgeable with this machinery," said Stacy.

Though this equipment belongs to and is used primarily by CBRN defense specialist, there was no shortage of Marines representing other military occupational specialties at the CBRN battalion training warehouse.

"In case of a chemical attack, it's good to have as many people possible trained on this system," said Stacy. "[CBRN defense specialist] aren't always going to be at the contamination sight when something happens, so the more Marines we have, the better." CBRN is preparing for all possible events, and as they train Marines to an efficient level, they're ensuring not only their own Marines are knowledgeable in case of an emergency, but that the entire 2nd MLG is as well.

Environics Oy ChemPro100 Sampling Cap Facilitates Bagging Unknown Gases/Vapors

With its NEW Sampling Cap, the superior sniffing and non-destructive nature of the ChemPro100 can be used to find unknown gases/vapors and bag them into a Tedlar bag. Gas/vapor identifiers are often criticized for not being able to identify unknowns. This can be due to random or "blind" sample collection without using a detector, filling a Tedlar with a PID that is "blind" to many chemicals or collecting a sample below the detection threshold of the identifier. The ChemPro100 with the Sampling Cap fitted addresses these issues, its unique "Trend" function allows it to be used as a powerful broadband gas/vapor sniffer to make sure the areas of highest concentration get into the Tedlar bag for further analysis.

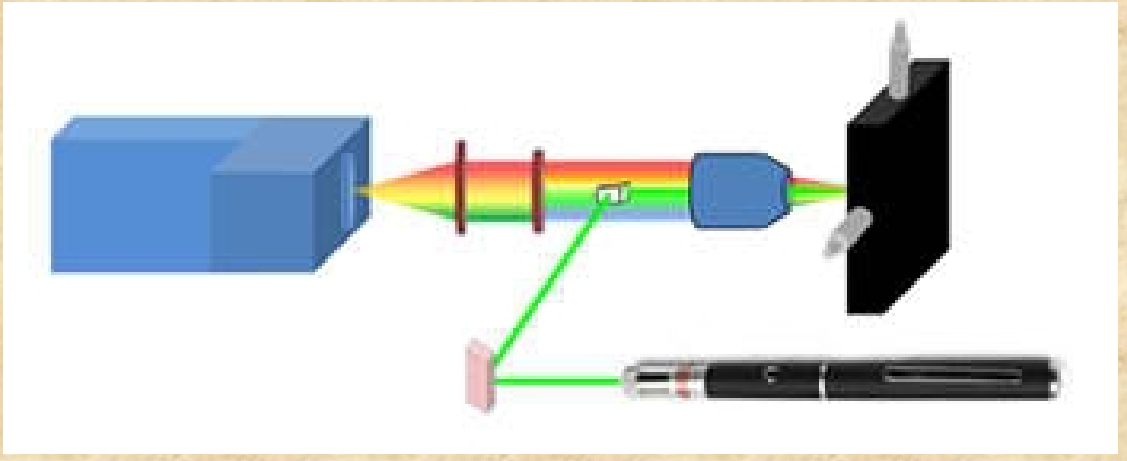
Green laser pointer identifies traces of dangerous chemicals in real time

Source: http://www.homelandsecuritynewswire.com/dr20121010-green-laser-pointer-identifies-traces-of-dangerous-chemicals-in-real-time

By using an ordinary green laser pointer, the kind commonly found in offices and college lecture halls, an Israeli research team has developed a new and portable Raman spectrometer which can detect minute traces of hazardous chemicals in real time. The new sensor's compact design makes it a candidate for rapid field deployment to disaster zones and areas with security concerns. The researchers will present their findings at Laser Science XXVIII, the American Physical Society Division of Laser Science's annual meeting — collocated with the Optical Society's (OSA) annual meeting, Frontier in Optics (FiO), to be held in Rochester, New York, 14-18 October 2012.

Raman spectrometers rely on highly focused beams of light at precise wavelengths to illuminate small samples of materials. An OSA release reports that very sensitive detectors then study the spectra of light that has been re-emitted, or scattered, by the sample. Most of this scattered light retains its original frequency or color, but a very small percentage of that light is shifted ever so slightly to higher or lower wavelengths, depending on the unique vibrational modes of the sample being studied. By comparing the shifted and the original wavelengths, it is possible to determine the precise chemicals present in the sample.

The researchers brought this capability down to size by constructing their Raman spectrometer using a low-power and low-cost commercial green laser pointer. The green laser's relatively short wavelength helped to improve the detection of the inherently weak Raman signal.



Schematic drawing of the Raman spectrometer, including a laser pointer, dichroic mirror, prism, objective, x,y motorized translational stage, long wavepass edge filter, lens and a detector (spectrometer/intensified charge-coupled device). *Image courtesy Ilana Bar, Ben Gurion University of the Negev.*

The spectrometer also has the capability to first scan the entire sample optically, sweeping from side to side, to locate individual particles of interest — a task usually performed by large and cumbersome Raman microscopes.

"Since the overall system is modular, compact, and can be readily made portable, it can be easily applied to the detection of different compounds and for forensic examination of objects that are contaminated with drugs, explosives, and particularly explosive residues on

latent fingerprints," said Ilana Bar, a researcher with the Department of Physics at Ben-Gurion University of the Negev in Israel. "With proper investment this system could be deployed quite quickly as a consumer product." Other members of the research team include Itamar Malka, Alona Petrushansky, and Salman Rosenwaks.

New military apparel repels chemical, biological agents

Source: http://www.homelandsecuritynewswire.com/dr20121018-new-military-apparel-repels-chemical-biological-agents

Lawrence Livermore National Laboratory (LLNL) scientists and collaborators are developing a new military uniform material that repels chemical and biological agents using a novel carbon nanotube fabric.

The material will be designed to undergo a rapid transition from a breathable state to a protective state. The highly breathable membranes would have pores made of a few-nanometer-wide vertically aligned carbon nanotubes that are surface modified with a chemical warfare agent-responsive functional layer. Response to the threat would be triggered by direct chemical warfare agent attack to the membrane surface, at which time the fabric would switch to a protective state by closing the CNT pore entrance or by shedding the contaminated surface layer.

"The uniform will be like a smart second skin that responds to the environment," said Francesco Fornasiero, LLNL's principal investigator for the Defense Threat Reduction Agency (DTRA)-funded project. "Without the need of an external control system, the fabric will be able to switch reversibly from a highly breathable state to a protective one in response to the presence of the environmental threat. In the protective state, the uniform will block the chemical threat while maintaining a good breathability level."

An LLNL release reports that high breathability is a critical requirement for protective clothing to prevent heat-stress and exhaustion when military personnel are engaged in missions in contaminated environments. Current protective military uniforms are based on heavyweight full-barrier protection or permeable adsorptive protective overgarments that cannot meet the critical demand of simultaneous high comfort and protection, and provide a passive rather than active response to an environmental threat.

The highly breathable membranes have pores made of a few nanometer-wide vertically aligned carbon nanotubes that are surface modified with a chemical warfare agent-responsive functional layer

To provide high breathability, the new composite material will take advantage of the unique transport properties of carbon nanotube pores, which have two orders of magnitude faster gas transport rates when compared with any other pore of similar size.

"We have demonstrated that our small-size prototype carbon nanotube membranes can provide outstanding breathability in spite of the very small pore sizes and porosity," said Sangil Kim, another LLNL scientist in the Biosciences and Biotechnology Division. "With our collaborators, we will develop large area functionalized CNT membranes."

The release notes that biological agents, such as bacteria or viruses, are close to ten nanometers in size. Because the membrane pores on the uniform are only a few nanometers wide, these membranes will easily block biological agents.

Chemical agents, however, are much smaller in size and require the membrane pores to be able to react to block the threat. To create a multifunctional membrane, the team will surface modify the original prototype carbon nanotube membranes with chemical threat responsive functional groups.

The functional groups on the membrane will sense and block the threat like gatekeepers on entrance. A second response scheme also will be developed: Similar to how a living skin peels off when challenged with dangerous external factors, the fabric will exfoliate upon reaction with the chemical agent. In this way, the fabric will be able to block chemical agents such as sulfur mustard (blister agent), GD and VX nerve agents, toxins such as staphylococcal enterotoxin and biological spores such as anthrax.

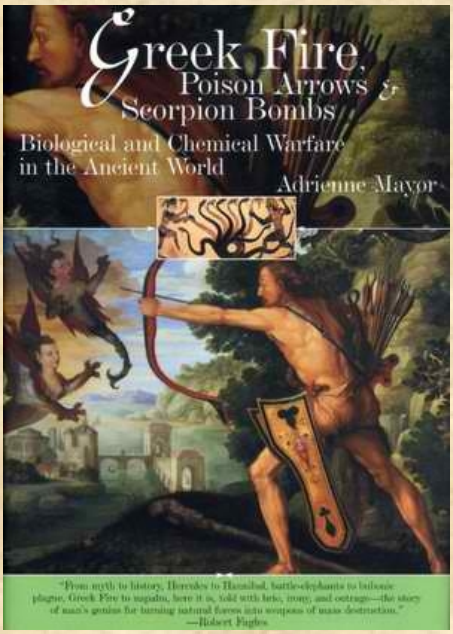
The project is funded for $13 million over five years with LLNL as the lead institution.

"Development of chemical threat responsive carbon nanotube membranes is a great example of novel material's potential to provide innovative solutions for the Department of Defense CB needs," said Tracee Harris, the DTRA science and technology manager for the Dynamic Multifunctional Material for a Second Skin Program. "This futuristic uniform would allow our military forces to operate safely for extended time periods and successfully complete their missions in environments contaminated with chemical and biological warfare agents."

The Laboratory has a history in developing carbon nanotubes for a wide range of applications including desalination. "We have an advanced carbon nanotube platform to build and expand to make advancements in the protective fabric material for this new project," Wu said.

The new uniforms could be deployed in the field in less than ten years.

BOOK: Greek Fire, Poison Arrows & Scorpion Bombs: Biological and Chemical Warfare in the Ancient World



Author: Adrienne Mayor
Source: http://www.stanford.edu/dept/HPS/GreekFire.pdf

Adrienne Mayor's exploration of the origins of biological and unethical warfare is an attention-grabber that follows through with fascinating illustrative episodes. "Greek Fire, Poison Arrows & Scorpion Bombs is a meticulously researched pagertumer that draws extraordinary connections between the mythical worlds of Hercules and the Trojan War, the accounts of Herodotus and Thucydides, and modern warfare.

Mayor describes ancient recipes for arrow poisons, boobytrops rigged with plague, petroleum-based combustibles, choking gases, and the deployment of dangerous animals and venomous insects. She also explores the ambiguous moral implications inherent in this kind of warfare.

Review

By N.S. Gill
Source: http://ancienthistory.about.com/od/greekappliedsci/gr/greekfire.htm

Mythology adds zest to this fascinating survey of man's inhumanity to man. In *Greek Fire, Poison Arrows & Scorpion Bombs - Biological and Chemical Warfare in the Ancient World*, Adrienne Mayor demonstrates how only minor details regarding how

best to destroy one's enemy have changed over the millennia.

Pros

- Filled with details about ancient poisons and warfare
- Goes as far back as possible using mythology
- Well written and researched
- Provides background for the relevant ancient history
- Because of the wealth of detail, it's a very memorable book

Cons

- If you don't like folklore mixed with history, you may object to the evidence

Description

- Even crafty Odysseus, known for his trickery, was honor bound to refrain in some situations.
- The venom that Hercules dipped his weapons in was the first biological weapon.
- Greek (Xenophon) and Roman (Pompey) armies were almost defeated by eating rhododendron honey.
- The scorpion bomb in the title is meant literally. Mice, hornets, and gadflies were also used.
- Today's uses for bees include chemical detection.
- Ancient incendiary devices contained sulphur, resins, tar, and petroleum.
- Describes Mithridates and other skilled poisoners.

In *Greek Fire, Poison Arrows & Scorpion Bombs - Biological and Chemical Warfare in the Ancient World*, Adrienne Mayor does a masterful job of showing how everything modern in the areas of terrorism and warfare has ancient antecedents.

While ancient warriors had codes of behavior, these standards seem more fluid than fixed and depend on who is doing the dirty deed. "Vile tricks and treachery" might be "shameful to any true warrior," but even in the Hindu Laws of Manu, which condemns attacking sleeping enemies, encourages polluting the enemy's water. Causing unnecessary suffering or harming non-combatants is forbidden in Sun Tzu's Art of War, but toxic smoke is not. Hypocrisy is rampant.

Warfare, whether ancient or modern, seems patterned on the many-headed hydra that Hercules subdued: each head he sliced, sprouted two more in its place. Even after Hercules learned to burn the stump, he was unable to stem the original source of venom. The best he could do was staunch the flow by burying the head -- just like nuclear waste today. The incredible forces unleashed by man in his efforts to destroy the enemy have gone on from the mythological era.

Even religious organizations have used bacterial warfare as a passive means of punishment. From a temple of Apollo and the Ark of the Covenant from the Temple of the Jews may have sprung fomites that spread plagues against the infidels.

Greek Fire is fascinating!

N.S. Gill is a Latinist and freelance writer with a longtime focus on the classical world.

Libya: Terrorists using chemical weapons?

Source: http://english.pravda.ru/opinion/columnists/24-10-2012/122549-libya_terrorists-0/

The reports coming out of Bani Walid, where patriotic Libyan forces hold out against NATO's gangs of pro-occupation terrorists and Tunisian and Egyptian mercenaries are, in a word, shocking. Every day armed gangs of thugs try to break into the city, every day they are beaten back with large numbers of casualties. As a result of this, the reports state from inside Bani Walid, the terrorist forces are using **sarin and mustard gas.**

The Chemical Weapons Ban: Status and Prospects (October 2012)

Author: Oliver Thränert

Source:http://sta.ethz.ch/CSS-Analysis-in-Security-Policy/No.-122-The-Chemical-Weapons-Ban-Status-and-Prospects-October-2012

The Chemical Weapons Convention (CWC) has been in effect since 1997. Its aim is to eliminate completely that category of weapons of mass destruction, and it not only proscribes the use of chemical agents, but also their development, production, transfer, procurement, and stockpiling. The CWC treaty regime does, however, have several deficiencies: Membership is not universal; chemical disarmament is lagging behind the timetable; and the inspections regime has certain weaknesses.

► **Read the report:** http://sta.ethz.ch/content/download/3224/18842/version/1/file/CSS-Analysis_122.pdf

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