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*Dedicated to Global
First Responders*

DIARY



September 2018



JUST A COINCIDENCE?

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September 2018

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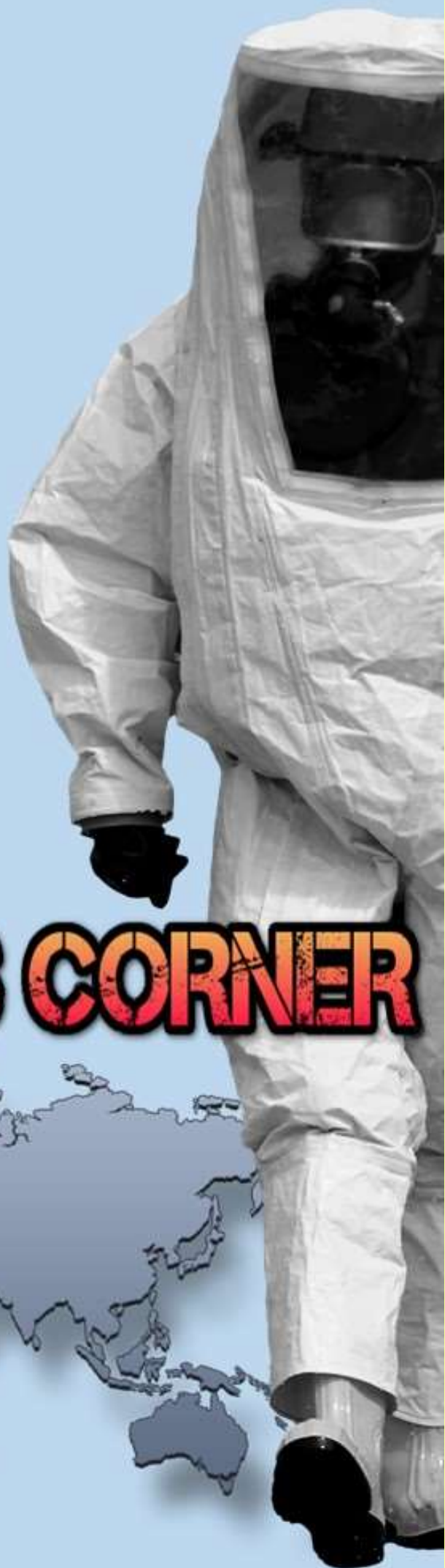
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EDITOR'S CORNER



**Editorial**

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

Editor-in-Chief
C²BRNE Diary*Dear Colleagues,*

A rather quiet month September (less than 200 pages – the smallest issue ever!) – a warning sign for coming winter!

I think that the most important incident was the “coincidence” of the three flights (Emirates Airlines [1]; American Airlines [2]) where passengers became sick on board with a flu-like symptomatology. Apart from initial noise in mass media, silence followed and logic explanation was revealed in public.

Other news:

- ◆ You enter illegally in a country you like to live in. You commit as many crimes as possible. You do not state your country when arrested. You state that you are 16 years old (no matter you look two decades older). Enjoy your state since they can do nothing to get rid of you!
- ◆ Two Middle East and one Japanese city are the top three safest cities in the world. So jealous of them!
- ◆ Indoor drones: Next mission would be fighting urban warfare.
- ◆ Waiting for the realization of the announced chemical weapons trap in Syria that ignites a US strike.
- ◆ Ebola in DRC and cholera in Yemen – but who really cares?
- ◆ Suicide chickens? Why not! War and terrorism are the ancestors of bloody innovations and best saving interventions.
- ◆ Strawberries with sewing needles in Australia and New Zealand (imported) – What is going on?
- ◆ Cyber threats against oil and gas industry – Wake up people!



Something new is coming in Qatar! And the Editor is happy to be one of the contributors. Stay tuned, more news will follow in October issue.

The Editor-in-Chief

Innovation in Future Soldier Protection Gear

Source: <https://i-hls.com/archives/85029>

Aug 25 – Modern small arms developed by leading countries feature high armor-piercing capabilities even with the small caliber. In view of this, Russia and other countries are developing individual protection gear included in the so-called 'Soldier of the Future' outfit.

Russia's state hi-tech corporation Rostec is developing stronger individual protection for soldiers. Rostec CEO Sergei Chemezov told tass.com that they were developing "new technology of forming aramid fibers

(a strong synthetic fiber) for developing the next-generation armor. The research shows already now that the use of this technology helps increase the armor reliability by 12-15% compared to foreign analogs, with its weight remaining the same." The new material can be used in the Ratnik 'Soldier of the Future' combat gear.

The Ratnik is a system of advanced protective and communication equipment, weapons and ammunition. It comprises around 40 protective and life support elements and allows a soldier to get continuously updated information about the situation in the combat area. In addition, the Ratnik includes a self-contained heater, a backpack, an individual water filter, a gas mask and a medical kit.

Currently, the Russian troops are receiving the second-generation Ratnik outfit whose

body armor withstands 7.62mm bullets fired from the SVD sniper rifle from a distance of 10m.

The Ratnik weighs 24 kg. The second-generation Ratnik combat gear has been arriving for Russia's ground forces, the Airborne Force and marines since 2016.

The third-generation Ratnik-3 outfit is expected to keep the protection level and simultaneously reduce the gear's weight. An advanced Ratnik-3 combat gear with an integral exoskeleton and a helmet visor-mounted target designation system is currently being developed for Russia's Armed Forces.

In fact, Ratnik future combat gear has been already demonstrated successfully in the Syrian arena on many occasions, according to tass.com. Rostec claimed that none of the elements of the combat gear's protection was ever pierced.



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Source: <https://www.universiteitleiden.nl/perspectives-on-terrorism/archives/2018#volume-xii-issue-4>





Migrant in Germany accused of **542 crimes** can't be deported because nobody knows where he's from

Source: <https://www.rt.com/news/437330-germany-repeat-offender-migrant-deportation/>

Aug 31 – A migrant suspected of committing hundreds of crimes has been let roam free in the German city of Frankfurt because the authorities have been unable to establish his identity and country of origin for decades.

Little is known about the man, as no one knows his name, let alone his age or nationality. The only more-or-less verifiable fact known about him is that he arrived in Germany some 20 years ago, in 1998, without any identity documents. He has lived on the streets of German cities ever since and currently resides in Frankfurt, according to the German [Bild daily](#).

The list of the crimes that the unidentified migrant has allegedly committed over this period is extensive. Some 542 criminal proceedings have been opened against him during these years, according to the German police.

"One third of the investigations were related to possession and purchase of drugs," Ruediger Buchta, a high commissioner with the Frankfurt police, told the German media, adding that the migrant's other alleged offenses included *"fraudulent acquisition of services like fare dodging,"* as well as *"assault, theft, robbery"* and numerous *"offenses against the Residence Act."*

Despite being repeatedly detained, the man has successfully resisted deportation from Germany for all these years for one simple reason: the German authorities still do not know where to deport him. The man repeatedly claimed to be from one of the North African countries, Algeria and Morocco in particular. However, the authorities of these states did not confirm this information.

The migrant apparently refused to reveal his name or provide any other personal details to the German authorities. Database searches for his fingerprints also yielded no matches, leaving the German police in limbo.

This quite bizarre case exposes flaws in the current German migration policy, Michael Seyfert, a migration spokesman of the right-wing Alternative for Germany (AfD) party, told RT.

"It is a failure of the system; it is a failure of the government," he said, adding that the German authorities simply *"do not dare to [extradite people] as they are afraid of the left-wing media and... protests."*

Various "NGOs... protest against it and even try to prevent [deportations] physically," Seyfert added. Almost every second deportation in Germany ends in failure, the German [Die Welt](#) daily's weekly edition reported, citing police data.

Out of 23,900 extraditions, which the German police should have carried out between January and May 2018, 12,800 failed for various reasons, according to Die Welt. The migrants, who ought to have been deported, often failed to turn up on time and just disappeared. However, in more than 500 cases, the deportees managed to successfully physically resist deportation, the daily said, adding that the number of such incidents doubled in comparison to the first five months of last year.

German Chancellor Angela Merkel, who has been repeatedly criticized for her 'open door policy' that partially led to the massive influx of migrants and asylum seekers in Germany during the refugee crisis, is apparently looking abroad for a solution to her domestic problems.

Merkel arrived to Senegal on Wednesday on the first leg of her three-day trip to West Africa, which is also scheduled to incorporate visits to Ghana and Nigeria. The chancellor met with Senegalese President Macky Sall and spoke about economic development and cooperation with Senegal, which is one of Africa's poorest countries.

Migration, however, apparently remained the underlying issue during the talks, as Merkel and Sall not only agreed on the need to combat human trafficking and stop smugglers who facilitate illegal migration to Europe, but also said that the development of African countries would be the best way to stem the influx of migrants to European countries.

For that purpose, Merkel, who was accompanied by a delegation of entrepreneurs working in the fields of electrification, automation and infrastructure, urged the German companies



to invest more in Africa while citing China as an example. She also said that German businesses should combat a "negative perception" of Africa as a place where risks outweigh benefits.

Meanwhile, the clock is ticking for Merkel as Germans' patience is apparently gradually wearing thin. Most recently, the murder of a German man, which was allegedly committed by two asylum seekers of Syrian and Iraqi origin, has sparked a wave of [violent protests](#) in the German eastern city of Chemnitz.

The riots, in which right-wing radicals and leftists clashed with each other and with police, left 20 people injured. Later, an arrest warrant for one of the suspects was leaked to some right-wing groups, prompting suspicions that some of the local police officers are sympathetic to the far-right.

EDITOR'S COMMENT: They have so many databases. Why not using DNA to specify origin? Until then, we have 125 entirely empty islands in Greece suitable for a new home/country. Same for certain NGOs that for known-unknown reasons support these people. Take for example our (NGO) ERCI (Emergency Response Center International) in Lesbos Island that recently proved guilty for human trafficking and many of its members arrested by Hellenic Police..

Microwave weapons suspected as cause of U.S. envoys' illnesses

Source: <http://www.homelandsecuritynewswire.com/dr20180904-microwave-weapons-suspected-as-cause-of-u-s-envoys-illnesses>

Sept 04 – Doctors and scientists increasingly suspect that weaponized microwaves were the cause of unexplained noises and illnesses that afflicted U.S. diplomats and their families in Cuba and China in the last year, the *New York Times* has reported.

The more than three dozen victims reported hearing intense, high-pitched sounds in their homes or hotel rooms, followed by symptoms that included nausea, severe headaches, fatigue, dizziness, sleep problems, and hearing loss.

While a medical study of 21 Cuba victims published in March did not mention microwave weapons as a cause, its lead author told the *Times* on 1 September that microwave weapons were now considered a primary suspect and that his investigative team was increasingly certain the diplomats suffered brain injury.

"Everybody was relatively skeptical at first...and everyone now agrees there's something there," Douglas Smith, the director of the Center for Brain Injury and Repair at the University of Pennsylvania, told the *Times*.

Neither the U.S. State Department nor the FBI has publicly blamed microwave weapons for the illnesses. The *Times* said it is still a mystery who might have carried out the microwave attacks and why.

Speculation among scientists has centered on the possibility that pro-Russian dissidents in

Cuba might have used weaponized microwaves to try to thwart a warming of ties between Washington and Havana that occurred at the end of former President Barack Obama's term. "I think that's a perfectly viable explanation," retired American scientist Allan Frey told the *Times*. Frey is credited with a discovery in the 1960s that led to research in both the United States and Russia on using microwaves as weapons.

After holding Cuba responsible for either carrying out the attacks or failing to protect U.S. officials, the United States in September 2017 recalled more than half of its staff from the embassy in Havana and expelled 15 Cuban diplomats from Washington.

Cuba has denied any role in, or knowledge of, the incidents.

In June 2018, the State Department announced it had sent home U.S. government personnel from China after they reported similar symptoms.

The *Times* said Frey was the first to discover that the human brain can perceive microwaves as sound, a revelation that led to experimentation with microwave weapons in both the Soviet Union and the United States.

Russia's military categorized the new class of microwave weapons



as “psychophysical” or “psychotronic.”

Russian state-run news agency TASS reported last month that Russia is currently developing weapons for its troops based on “new physical principles,” including “laser and microwave guns” and “sonic weapons.”

The *Times* said the U.S. Defense Intelligence Agency warned in 1976 that Soviet research on microwaves showed potential for “disrupting the behavior patterns of military or diplomatic personnel.”

A National Security Agency statement obtained by Washington lawyer Mark Zaid in 2014 said that a “hostile country” visited by a client in the late 1990s had “a high-powered microwave system weapon that may have the ability to weaken, intimidate, or kill an enemy over time

and without leaving evidence,” according to a copy of the [statement](#) published by the *Times*.

The statement said that “this weapon is designed to bathe a target’s living quarters in microwaves, causing numerous physical effects, including a damaged nervous system.”

The *Times* said the U.S. military also researched weapons applications of microwaves, with the U.S. Air Force registering a patent on an invention shown to beam comprehensible speech into someone’s head.

It said U.S. Navy researchers explored using microwaves to induce sounds powerful enough to cause painful discomfort, and even immobilize the subject.

The *Times* said it was not known if Washington deploys such weapons.

A Comprehensive List of all the Metal 3D Printer Manufacturers

Source: <https://www.3dnatives.com/en/metal-3d-printer-manufacturers/>



Jan 30 – Metal 3D printing has definitely been the hot topic of 2017 in the industry. This has led to a number of companies starting up in the area and receiving large investments, as well as established names increasing their sales or launching new products. We created this overview of the main players in the metal 3D printing market to highlight the new, innovative technologies being developed. These range from DMLS, to Electron Beam Melting, to Binder Jetting, and more!



When is a sea wall a good idea?

By Aline Reynolds

Source: <http://www.homelandsecuritynewswire.com/dr20180914-when-is-a-sea-wall-a-good-idea>

Sept 14 – Recent hurricanes like Maria and [Sandy](#) have brought crippling winds, torrential rains, and flooding to vulnerable coastal regions, in some cases killing thousands of people. [Sea walls](#) and other barriers are often suggested as a way of protecting these low-lying coastal communities, but how large should such a wall be, and where is the most effective place to build it? At Columbia's Earth Institute, a team of environmental scientists and researchers is trying to answer these questions and more, to help curb the devastation from future hurricanes.

Using a unique combination of hard science and community feedback, the project is using models and hurricane simulations to develop and evaluate prototypes of storm surge barriers and other protective mechanisms. The project will use Lower Manhattan as an initial case study, but eventually the tools and techniques that the team develops will be freely available and applicable to any coastline in the world.

"One of the things we're probably going to focus on is the specific scenario of a sea-wall around Lower Manhattan—where to put that wall, and how high it needs to be are two of the variables we'll be looking at," said lead researcher [Kyle Mandli](#), an Earth Institute affiliate and assistant professor of applied mathematics at Columbia University's School of Engineering and Applied Science. A storm surge barrier is just one of several protection strategies for coastal communities—including [artificial reefs](#), infrastructure elevations, and even managed retreat—that Mandli and his associates intend to investigate as part of the endeavor.

Currently, Mandli and Columbia mathematics and engineering professor [Daniel Bienstock](#) are running simulations that anticipate how storm surge and sea level rise will impact NYC's infrastructure under existing conditions over the next approximately 50 years. The scientists will then introduce into these models interventions such as a sea-wall, restored wetlands, or artificial sand dunes to hypothesize how, and to what extent, the damages from future hurricanes can be prevented.

The team's objective is to come up with a multi-pronged proposal that would minimize storm-related damage as much as possible. "The optimal thing would be to have a suite of measures designed to work in concert to protect the coastline," said Mandli.

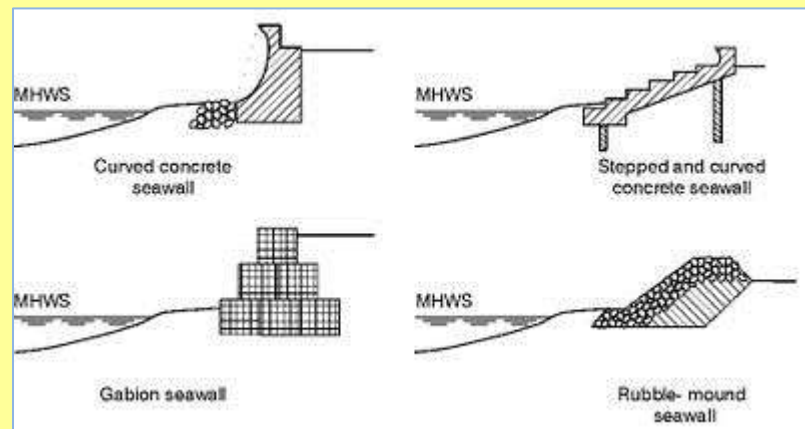
Filling in the details

Using openly available New York City data, the scientists are mapping the footprints and critical elevation levels of all the buildings and infrastructure of Manhattan's varied streetscape—including hospitals, subway entrances, and fire stations—with the goal of

predicting how future hurricanes will impact communities at large.

"No one has really thought about the entire area with everyone included—all the agencies and all pieces of infrastructure, like the hospitals, the schools, the underground transportation system," said Earth Institute faculty member George Deodatis, chair of Columbia's Department of Civil Engineering and Engineering Mechanics.

The scientists are also taking into account the costs of such resiliency measures. Typically, every dollar spent on protection reduces damage-related financial losses by five to ten dollars. And, since it is often difficult to secure large amounts of government funding for coastal interventions, Mandli's team may recommend a gradual installation of equipment every 30 years or so as new funds become available.



Besides, worsening storm and sea level rise conditions may trigger the need for more protection as the years pass, he noted. “We may only need a 5-foot wall now,” said Mandli, “but in 30 years, maybe we would need a 10-foot wall.”

Changing perspectives

To better understand the real-world effects of hurricanes on the different neighborhoods of southern Manhattan, the team is collecting input from state, city, and local officials. The findings from these outreach efforts—led by the National Center of Atmospheric Research (NCAR), a partner in the project—are supposed to help guide the team’s storm surge modeling.

So far, NCAR staff members Rebecca Morss and Heather Lazrus, the project’s co-principal investigators, have interviewed about a dozen leaders of the New York City and New York State Offices of Emergency Management and other government agencies. These officials have shared their views on the needs and vulnerabilities of their communities—explaining, for instance, how institutions such as hospitals depend on the power grid during emergencies, and offering recommendations on how to lessen risks from storm surge.

The team’s approach of collecting the officials’ responses and revising the scientific models and simulations accordingly is a crucial element of the project’s success, according to Mandli.

“The idea is, we have all these numerical and computational techniques of storm surge barriers – but if we just rely on those, we’re going to get an answer that might not be indicative of the true situation,” he explained.

“It is important for us to talk to people who are actually making the decisions and who understand the potential impact of storm surge on the ground,” said Lazrus. Morss and Lazrus plan to hold community meetings in select neighborhoods of the city next summer in order to gather local residents’ input and concerns as well.

The project is funded until 2019, thanks to a grant from the National Science Foundation’s Critical Resilient Interdependent Infrastructure Systems and Processes program. If the team can secure additional funding to extend the project until 2023 or 2024, Mandli and his colleagues will explore storm protection strategies for other U.S. coastal cities such as Tampa Bay, Miami, Houston, or New Orleans. To further their goal of broadening the project’s impact, the scientists have made their simulation software open-source and thereby available for use to anyone in the private or public sectors.

“The real intent here is try to provide this capability as broadly as possible, so that it’s applicable to anywhere in the world,” said Mandli.

Aline Reynolds is an urban planner and an urban affairs journalist.

EDITOR’S COMMENT: I always wonder about the sea walls protecting nuclear power plants around the globe. They look so tiny and a bit ridiculous for the task they have been constructed for.

Abu Dhabi named safest city in the world for second year running

Source: <https://www.thenational.ae/uae/abu-dhabi-named-safest-city-in-the-world-for-second-year-running-1.771864>

Sept 19 – **Abu Dhabi has been ranked the safest city in the world** for the second year, with Dubai close behind in 11th place, according to a website that collates crime statistics on the world’s major cities. Numbeo, a website for crowd-sourced global data, has placed the capital first and given the lowest crime index of more than 300 cities.

“Safety is paramount when choosing a city to visit or live and work in and we are proud to be the top of the list for the second year running,” said Saif Saeed Ghobash, undersecretary at the Department of Culture and Tourism – Abu Dhabi.



"Our capital's strong reputation for safety and a virtually crime-free society is a testament to the ongoing efforts to establish the Emirate as a destination of distinction with international standards of safety. And

328	Dubai, United Arab Emirates	18.20	81.80
329	Irvine, CA, United States	17.71	82.29
330	Munich, Germany	17.43	82.57
331	Bern, Switzerland	16.53	83.47
332	Tokyo, Japan	16.05	83.95
333	Quebec City, Canada	15.98	84.02
334	Basel, Switzerland	15.86	84.14
335	Singapore, Singapore	15.59	84.41
336	Osaka, Japan	13.79	86.21
337	Doha, Qatar	13.11	86.89
338	Abu Dhabi, United Arab Emirates	11.74	88.26

we hope that adds to all visitors and residents of Abu Dhabi enjoying their time and making the most of our renowned Emirati hospitality."

<https://www.numbeo.com/crime/rankings.jsp>

The index ranked **338 cities** and is an estimation of overall safety levels in any given city or a country. It also measures the cost of living, pollution, the cost of travel and quality of life.

Abu Dhabi's crime index was 13.63, better than 14.41 last year and Dubai's was 19.03, a slight improvement on 19.50 last year.

Police have been aggressive about tackling what crime there is, including drug use.

In June, Dubai's most senior security official said police are "at war" with traffickers following a large rise in the amount of drugs seized in the UAE.

Nationwide figures showed anti-narcotics officers arrested 6,440 people in relation to drug smuggling and drug use last year, up from 5,130 in the previous year.

"When smuggling techniques are detected by the anti-narcotics unit, traffickers create new ones. Police must focus on busting drug lords rather than addicts," said Lt Gen Dhahi Tamim, Deputy Chairman of Police and General Security in Dubai, speaking at the time.

On Numbeo's scale, 1 would be no crime at all and 100 would be extremely dangerous.

The remaining nine safest cities were Doha, Basel, Singapore, Quebec City, Osaka, Tokyo, Bern, Munich and Zurich, in that order.

The most dangerous was San Pedro Sula in Honduras and Caracas in Venezuela, where gun violence, drug dealing and kidnapping are rife.

Also in the bottom ten were the South African cities of Durban, Pretoria and Johannesburg, despite a recent economic revival in the latter.

EDITOR'S COMMENT: I have been to all three top safe cities – we must study their approaches and copy & paste their methodology instead of trying to invent the wheel. Of course each society has its own peculiarities but there are some core principles inducing safety

Revolutionary Indoor Drone Developed

Source: <https://i-hls.com/archives/85468>

Sept 15 – Currently, the landscape of drone-based security and imaging services is lacking precision. A new drone developed by Vtrus technology start-up can now, for the first time,



thoroughly scan every inch of an intricate indoor environment. The ABI Zero drone system's combination of autonomous navigation, simultaneous location and mapping (SLAM) software, and computer vision seem to make it an ideal solution for clients requiring 3D mapping and inspections of large indoor environments, in real time.

The drone essentially takes off from its launchpad (which serves as a charging station) and immediately begins to navigate and map its environment, all without the need for GPS. The drone can fly 10 minutes



per charge, with the data it collects being relayed to your computer via Wi-Fi and the Vtrus cloud service in real time.

The autonomous inspection drone is currently targeted at commercial clients eager to maximize their businesses by reducing manual inspection times and unnecessary expenditures while increasing accurate inventory assessment (in factories and warehouses, for example). For these purposes, the ABI Zero could soon become a top-tier option for those in need of a thorough indoor mapping solution, according to TechCrunch.

However, ABI Zero's technological potential may reach beyond commercial purposes. **High-intensity urban warfare poses challenges which may be alleviated with the help of ABI Zero.** The enemy defender generally has the advantage in urban combat and may hide within the protection of buildings. Narrow movement corridors produce dead space and require attacking forces to be prepared to engage threats not just to their front, but from every direction.

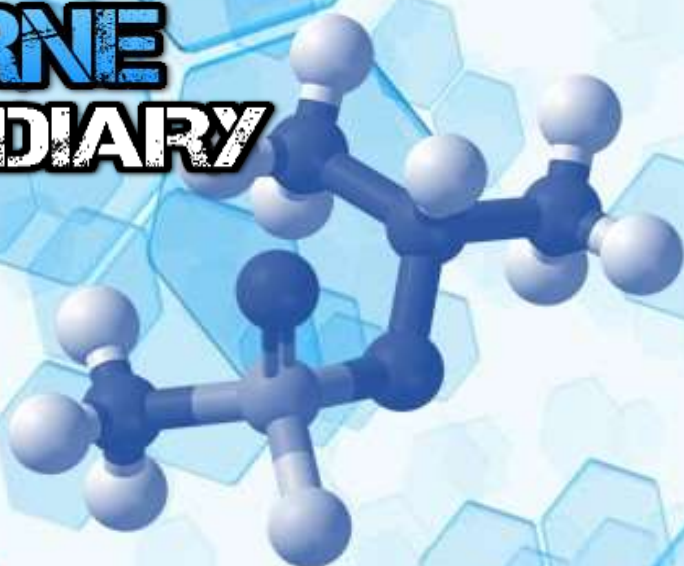
As many already believe, drone swarms are the future of the drone's battlefield evolution. They can contribute in providing concealment and protection for the attacking forces, as well as fly around a building and see in every window, door and rooftop. Emphasis on reliable and detailed indoor mapping and detection of movements in real-time, however, is where ABI Zero's contribution can be made to alleviate the fundamental challenges of urban warfare.



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CHEM NEWS



Terrorists readying chemical attack to frame Damascus and provide pretext for US strikes: Russian MoD

Source: <https://dissidentvoice.org/2018/08/terrorists-readying-chemical-attack-to-frame-damascus-and-provide-pretext-for-us-strikes-russian-mod/>

Aug 25 – The US and its allies are preparing new airstrikes on Syria, the Russian Defense Ministry said, adding that **militants are poised to stage a chemical weapons attack in order to frame Damascus** and provide a pretext for the strikes.

The attack would be used as a pretext for US, UK and French airstrikes on Syrian targets, Russian Defense Ministry spokesman, Major General Igor Konashenkov said. USS 'The Sullivans,' an Arleigh Burke-class Aegis guided missile destroyer, was already deployed to the Persian Gulf a couple of days ago, he added.

The destroyer has 56 cruise missiles on board, according to data from the Russian Defence Ministry. A US Rockwell B-1 Lancer, a supersonic bomber equipped with 24 cruise missiles, has also been deployed at the Qatari Al Udeid Airbase.

The provocations are being prepared by militants from Al-Nusra Front (now known as Tahrir al-Sham) in Idlib province, northwestern Syria,

In order to stage the attack, some eight canisters of chlorine were delivered in to village near Jisr al-Shughur city for the terrorists' use, he added. A separate group of militants, prepped by private British security company Olive, have also arrived in the area. The group will be disguised as volunteers from the White Helmets group and will simulate a rescue operation involving locals purportedly injured in the attack, according to the military official.

According to the Defense Ministry spokesman, [recent statements](#) by US National Security Advisor John Bolton – in which he threatened to bomb Syria – could be interpreted as an implicit confirmation of such airstrikes. On August 22, Bolton stated that “... if the Syrian regime uses chemical weapons, we will respond very strongly and they really ought to think about this a long time.”

Russian Deputy Foreign Minister Sergey Ryabkov warned Washington against new reckless moves in Syria, RIA Novosti reported. “We hear ultimatums from Washington, including those made in public,” the top official said, apparently referring to Bolton's recent remarks.

According to Ryabkov, the US is aiming to destabilize Syria and create new pretexts for regime change in Damascus. “Again, we are witnessing serious escalation of the situation [in Syria],” he added.

In April, the US, UK and France unleashed a bombing campaign on Syria. The airstrikes were carried out in response to an alleged gas attack in Douma on April 7, which the West blamed on Bashar Assad's government. The operation started hours before a team from the Organization for the Prohibition of Chemical Weapons (OPCW) was due to reach the city.

Back then, Syrian defenses were scrambled to repel some 103 cruise missiles and air-to-surface missiles launched at civilian and military targets by the Western trio. It managed to intercept at least 71 of them, the Russian Defense Ministry said at the time.

UGV designs shifting towards CBRNE missions

Source: <https://www.janes.com/article/82202/ugv-designs-shifting-towards-cbrne-missions>

Aug 05 – Unmanned ground vehicle (UGV) technology, which was once mainly focused on explosive ordnance disposal, appears to be shifting somewhat towards addressing chemical, biological, radiological, nuclear, and explosive (CBRNE) threats.

The shift could be due to recent CBRNE activity – such as the March nerve agent attack in Salisbury, UK, as well as an alleged chemical incident in Douma, Syria, and recent Islamic State group calls for biological attacks on the West.

On 26 July, for example, a collaboration agreement was signed between Croatian mine-clearing vehicle manufacturer DOK-ING and Israel Aerospace Industries (IAI) to produce a



CBRNE UGV. IAI General Manager for Robotic Systems Division Meir Shabtai told *Jane's*, "The first prototypes of the platform are expected to be completed during the coming year."



Owing to its small size, the EXTRM, equipped with the CLAWS mobility system, can fit into tight spaces such as pipes. Source: Robosynthesis

Few details of the platform are available as the agreement is in an embryonic stage, but it is known that the platform will be provided by DOK-ING and IAI will incorporate the autonomous capabilities. Shabtai noted, "It will be a robotic platform for a new scenario as there is no solution today for that scenario. We want to build a new product that can deal with those kinds of scenarios."

Firefighting UGVs, which were once largely for the civil market, are now emerging in military applications including CBRNE. The Austrian-produced LUF 60 was seen in Chinese local media footage in April with the People's Liberation Army (PLA) Rocket Force (PLARF), which was operating a LUF 60 in a CBRNE training exercise. The PLARF Emergency Disposal Brigade remotely operated the LUF 60 for firefighting duties, with the UGV deployed from a larger command vehicle.

The diesel-powered LUF 60 is a wireless remote-controlled mobile firefighting support machine that is intended to clear a path of up to 300 m that firefighters and rescue teams are able to follow safely.

Japan displays new NBC decontamination set

Source: <https://www.janes.com/article/81091/japan-displays-new-nbc-decontamination-set>

June 2018 – The JGSDF unveiled a new truck-mounted nuclear, biological, and chemical (NBC) decontamination set on 27 May at Camp Omiya. Source: JGSDF Camp Omiya

The Japan Ground Self-Defense Force (JGSDF) unveiled a new truck-mounted nuclear, biological and chemical (NBC) decontamination set on 27 May at Camp Omiya in Saitama Prefecture, where the service's Central NBC Weapon Defense Unit is based.

Mounted on a 6×6 truck the new set, which is composed of 'Type I' and 'Type II' decontamination equipment, was displayed at an event commemorating the 61st anniversary of the founding of the camp, a spokesperson told *Jane's* on 15 June.

The new equipment is a successor to the service's 'Type 94' decontamination set mounted on a Mitsubishi Type 73 truck, the spokesperson added.

The new equipment underwent research and prototype development as well as initial testing between fiscal year 2008 (FY 2008) and FY 2010. Operational suitability tests were carried



out from FY 2013 to FY 2014 by the Ministry of Defense's (MoD's) Acquisition, Technology & Logistics Agency (ATLA).



The unveiling of the new set comes after the MoD recently allocated JPY100 million (USD905,000) for the acquisition of Type I decontamination equipment for FY 2018. Additional funds had also been allocated in the FY 2017 supplementary budget.

What is the difference between HazMat and CBRNe?

By Steven Pike

Source: <https://www.argonelectronics.com/blog/what-is-the-difference-between-hazmat-and-cbrne>



Aug 12 – Although [HazMat](#) (hazardous materials) and [CBRNe](#) (Chemical, Biological, Radiological, Nuclear and Explosives) emergency response share certain common ground, there have always traditionally been some fundamental differences in terms of the focus, method and priorities of each approach.

While HazMat incidents may have typically comprised smaller-scale, accidental and non-weaponized events, for example, CBRNe missions have tended to be in response to the deliberate use of [chemical warfare](#) agents (CWAs), often under battlefield conditions and within the context of planned, special intelligence operations.

Increasingly however, the prospect of the deliberate release of a hazardous, weaponized, chemical material within a civilian setting is creating a new set of challenges that first responders need to be prepared for.

High profile incidents such as the two Salisbury Novichok nerve agent poisonings in the United Kingdom in March and July 2018, are a reminder that the distinction between where HazMat responsibility ends, and where CBRNe command begins, is perhaps not as clear cut as it may once have been.

Comparing HazMat and CBRNe

The differentiation between HazMat and CBRNe has historically been determined by the intent, risk and scope of the incident being faced.

Intent

HazMat events have tended to encompass accidental chemical releases, whether as a by-product of an incident involving hazardous cargo or as the result of an industrial fire.



CBRNe events, in contrast, have comprised deliberate or aggressive acts, and with the specific intent of inciting terror or causing physical or environmental harm.

Risk

The degree of risk involved has often served as another differentiator between HazMat and CBRNe- with HazMat incident response placing a high priority on the safety of the personnel and the public; while the mission-focus on CBRNe activities has often involved acceptance of a greater level of risk.

Scope

Where HazMat incidents may have involved an especially hazardous substance such as [radioactivity](#), these events have typically resulted from a transportation accident or as the result of an incident at a hospital or industrial facility where a radioactive source was legitimately in use.

The events in [Fukushima](#) Japan in 2011 for example demonstrated an extreme example of a HazMat release - in this case from a nuclear power station and, at the time, second only in severity to the Chernobyl disaster of 1986.

Prior Knowledge

What the majority of [HazMat incidents](#) have also had in common (and based on the assumption that the entity concerned complies with all applicable laws) is that those charged with first response have had some prior knowledge of the potential hazard that they are about to encounter.

Or in the event that emergency crews have not been forewarned, upon arrival they would be provided with sufficient information, or some visible indication, of the specific hazard.

CBRNe missions in contrast have often involved unknown or unidentified substances, with a greater emphasis on the need to identify the substance through sampling and intelligence collection.

Implications for first responders

In all, [twenty-one people](#) received medical treatment after falling ill following the poisoning of Sergei Skripal and his daughter Yulia in March this year - among them were several police officers and paramedics who were some of the first on the scene.

The Salisbury incidents are reported to have placed an "extraordinary level of demand" on the resources of police forces not only within the county but across the UK, according to Angus Macpherson, the police and crime commissioner for Wiltshire and Swindon.

Macpherson has recently reported that scores of officers continue to guard the sites at the centre of the incidents, alongside fulfilling their continuing responsibilities for day-to-day policing.

The UK government has also reportedly pledged a sum of £4.1m (USD5.3m) to Wiltshire police to cover the costs incurred.

The possibility of a deliberate use of a weaponized chemical in a civilian setting is difficult enough to contemplate. But as the modern threat becomes increasingly more terrorist-related, there is a greater probability of the location of the incident being in an area frequented by the public.

And as the range of substances used extends to [nerve agents](#), radionuclides or biological weapons that may have once been traditionally reserved for the battlefield, the pressure is mounting for HazMat safety personnel to be able to handle a wide range of increasingly sophisticated [detection technology](#).

Syria presents UN with data proving plans for terrorist chemical weapons attack in Idlib

Source: <http://tass.com/world/1019015>

Aug 28 – Syria's permanent mission to the United Nations has presented documents proving terrorists' plans to carry out a chemical weapons attack in the Syrian province of Idlib and put the blame on Damascus, Syrian Permanent Representative to the UN Bashar Jaafari said at a United Nations Security Council meeting on Tuesday.



According to him, the documents make it clear that the **Jabhat al-Nusra terror group** (outlawed in Russia) and some other terrorists pledged readiness to use chemical weapons against civilians in Idlib in order to put the blame on Syrian authorities and justify a foreign military aggression.

Jaafari pointed out that in April, the US and its allies had carried out an attack on Syria after a chemical weapons provocation. The Syrian envoy called on countries capable of influencing terrorists to prohibit their agents from taking any action.

According to him, Damascus condemned the use of chemical weapons no matter the circumstances and considered it to be immoral. Jaafari reiterated that the Syrian government did not have chemical weapons and was committed to its obligations to the Organization for the Prohibition of Chemical Weapons (OPCW), which had informed the international community that Syria had implemented its obligations in that field.

The Syrian envoy said that any aggression against his country would be an aggression against a United Nations founding state, as well as against global peace and security, and would amount to supporting terrorism.

Plans for provocation

Russian Defense Ministry Spokesman Major General Igor Konashenkov told reporters on Monday that the United States was increasing the number of cruise missiles deployed to the Middle East, planning to target Syrian government troops following a staged chemical weapons attack that terrorists were about to carry out in the Idlib province. He added that "this is another proof of the United States' intention to take advantage of an attack staged by Hayat Tahrir al-Sham militants with the support of British intelligence agencies in the Idlib province, aimed at blaming Syrian government forces for using chemical weapons." According to Konashenkov, on August 25, the USS Ross, a guided-missile destroyer, entered the Mediterranean armed with 28 Tomahawk cruise missiles capable of hitting any target in Syria. The USS The Sullivans armed with 56 cruise missiles arrived in the Persian Gulf several days ago, while a US B1-B bomber equipped with 24 air-to-surface standoff missiles was relocated to the Al Udeid US air base in Qatar.

In early April, a number of non-governmental organizations, including the White Helmets, reported that Syrian troops had allegedly used chemical weapons in the town of Douma on April 7. On April 14, the United States, Great Britain and France attacked several Syrian targets, firing over 100 missiles. The three countries claimed that the attack was a response to the alleged use of chemical weapons by the Syrian government.

Syrian FM: **White Helmets** Kidnapped 44 Children to Stage Chemical Attack in Idlib

Source: <https://sputniknews.com/russia/201808301067588116-russia-syria-foreign-ministers-conference/>

Aug 30 – Syrian Foreign Minister and Deputy Prime Minister Walid Muallem have met with Russian Foreign Minister Sergei Lavrov during a visit to Moscow.

The visit is being held within the framework of the Syrian-Russian intergovernmental commissions.

"Russia is ready to increase its contribution to these tasks (the restoration of Syria and the solution of the issue with the return of refugees)," the minister said at a press conference following the talks with his Syrian counterpart Walid Muallem.

On Situation Around Idlib

Russian Foreign Minister Sergei Lavrov has called the use of the de-escalation zone in Idlib by Al-Nusra* terrorists to attack Syrian and Russian forces "unacceptable."

"It is unacceptable that the terrorists who are entrenched there, primarily from the Nusra Front [a terrorist group banned in Russia], are trying to use this de-escalation zone to prepare attacks on the positions of the Syrian army and even for attempts to attack the



Russian military base in Hmeimim using aerial drones," Lavrov said at a news conference following talks with his Syrian counterpart Walid Muallem in Moscow.

"Another provocation by the West is being prepared in order to try to obstruct the anti-terrorist operation in Idlib," Lavrov said at a joint news conference with his Syrian counterpart Walid Muallem in Moscow. Lavrov also stressed that the US attempts to establish "authorities" on the left bank of the Euphrates, as it



may lead to Syria's split.

"The US presence in Syria has not only a military aspect... Simultaneously, our American colleagues are actively developing the eastern bank of the Euphrates, restoring infrastructure there, social and economic networks and even creating quasi-state local government bodies," he said.

On Western Meddling in Syria's Affairs

Syrian Foreign Minister Walid Muallem has warned of possible US-UK-French aggression and of disastrous consequences of Western attempts to destabilize the country.

Regardless of whether the US-UK-French attack happens or not, Damascus will accomplish its fight against terrorism, the minister noted.

"We will do our best to avoid possible civilian casualties and generally avoid bloodshed," he said, noting that Al-Nusra front is trying to prevent such plans.

The US has lost to Syria in the military sphere, despite all its efforts, the Syrian foreign minister added.

"We can say that the Americans lost militarily in Syria, despite the efforts they have made, and now they want to take advantage of the moment to get any dividends through political processes and preventing the return of refugees to their homes," Muallem told reporters.

On Possible Chemical Weapon Provocation

The White Helmets have kidnapped 44 children in Idlib to use in a staged chemical attack, according to the Syrian foreign minister.

"Behind the creation of the pseudo-organization the White Helmets, are the British special services: they sponsor them, they lead them. They were behind the organization of those fabricated scenarios for the use of chemical weapons and now they are preparing such a development of the situation with the use of chemical weapons in Idlib," Muallem stated.

He also stated that there is no need for the Syrian army to use chemical weapons, emphasizing that it doesn't possess such weapons.

Muallem noted that Damascus intends to expand its relations with Tehran.



Earlier this week, Russia's Defense Ministry warned that the leader of the Tahrir al-Sham terrorist group, which is affiliated with the al-Qaeda-linked Jabhat Nusra terror organization (banned in Russia), was planning a chemical attack against civilians in Idlib in order to provoke western nations into retaliating against Damascus.

Russia, alongside Iran and Turkey, is a guarantor of the ceasefire regime in Syria. Moscow has also been assisting Damascus both through supporting the struggle against terrorist groups and providing humanitarian aid to the residents of the crisis-torn country.

**Al-Nusra Front or Jabhat al-Nusra, known as Jabhat Fatah al-Sham is a terrorist group banned in Russia*

To prepare for urban warfare, soldiers train for chemical attack, mass disaster response in Detroit

Source: <https://www.armytimes.com/news/your-army/2018/08/29/to-prepare-for-urban-warfare-soldiers-train-for-chemical-attack-mass-disaster-response-in-detroit/> 245



Aug 30 – As the Army and top leaders look to a [potential urban fight in dense, dangerous and confusing terrain](#), their National Guard counterparts are working the complexities of urban response right now.

Recently, troops with the 46th Military Police Command of the Michigan National Guard began a three-year effort to respond to a [chemical, biological, radiological or nuclear attack](#) in Detroit. When they fill that role, soldiers in that unit fall under the command of the active Army, specifically U.S. Army North.

The first stage of the exercise ran for three days, from Aug. 21-23, with a “tabletop exercise” and terrain walk through for leaders and planners to identify who would do what as the Guard units fit into the intricate ways in which many groups [coordinate disaster response in urban settings](#).

A key role of Task Force 46 and elements of the MP command is decontaminating those exposed to toxic elements in the CBRN environment. Local agencies, from city to state government and emergency response units, lead their respective areas, but Army assets can hit certain needs at a large scale.



"As you go, the intent is to fill larger gaps rather than take over," said Robert Naething, deputy to the commanding general of U.S. Army North, which oversees such Army responses inside the United States. Task Force 46's key mission is mass decontamination and urban search and rescue, said Maj. Gen. Michael Stone, commanding general of the 46th MP Command and the task force.

While state and local emergency responders do have some capabilities to decontaminate, they're somewhat limited to a few hundred people at a time.

A mass emergency CBRN event could produce tens of thousands of casualties, Stone said.

There have been similar training exercises with New York City and units at nearby Fort Hamilton, but the Detroit exercise is of a new type of planning between Army Forces Command and the Guard.

It was born, in part, out of the Army's renewed focus on dense urban terrains, or urban environments.

It's about going beyond initial responses and stabilization to adding in local experts, academic researchers and the cyber community, among others, to better flesh out all the varieties of situations units face in the urban terrain, Stone said.

While Guard units faced extreme challenges with urban responses to the 9/11 attacks in 2001 and Hurricane Katrina in 2005, cities have become even more interconnected and complex since those events of more than a decade ago.

For that reason, Guard units try to train in the cities they're designated to help in such situations, rather than rely solely on training centers.

Being able to work with the people you might need in an actual environment and in the actual city where a disaster could take place means better coordination in extreme circumstances.

After this year's walk through, the unit will meet in the spring for a command post exercise and culminate with a full field exercise with the entire mission command running through real-world type scenarios in mid-2020.

But the exercise doesn't end there, nor does it end with Detroit, Stone said.

There are ongoing efforts to partner with cities such as Atlanta, Chicago, Phoenix and Cleveland in the coming years so that command groups from the various Guard units and Army North can build out their plans and better coordinate with the local contacts in each area.

That's an area where the Guard has had experience, Stone said. But with this new event, they're bringing in not only the working agencies but experts in academia and industry who study disaster related problems.

But, since its inside the U.S., the chain of command is somewhat different than in war time scenarios.

"We're never in charge, we're always in support," Naething said. "Either FEMA or DHS is typically in charge."

And Stone said that soldiers will have to adapt beyond their normal training center rotations. Instead of chow halls and flushing toilets, they'll be put into areas without power, water and food and must bring what they need or figure out alternatives, just like in a real-world scenario.

"We'll have to figure out mobile kitchens to feed our soldiers," Stone said. "We're going to have terrain and distance problems, communications problems. We'll be expeditionary, sleeping on the ground."

Salisbury Novichok 999 vehicles buried near Cheltenham

Source: <https://www.bbc.com/news/uk-england-wiltshire-45362840>



Aug 31 – **A number of vehicles which were used in the response to the Salisbury Novichok poisoning have been buried at landfill.**

Defra said the **"potentially contaminated items"** were taken to a site at Bishop's Cleeve near Cheltenham before "being disposed of safely".

A spokesman said the secure burial of the vehicles posed "absolutely no risk" to the public.

Sergei Skripal, 66, and his daughter Yulia, 33, were [poisoned with the nerve agent](#) in March.

Then, on 30 June, Dawn Sturgess and Charlie Rowley fell ill at a house in Amesbury, about eight miles from Salisbury.



Police said they were exposed after handling a contaminated container - which is now believed to have been a perfume bottle.

Ms Sturgess died in hospital on 9 July. Mr Rowley was discharged from hospital on 20 July.

All the affected vehicles had been kept in secure storage and as they are released from the investigation they are being sent to landfill.

The precise number has not been released but it is understood the figure will increase as the probe continues.

The Defra spokesman said once the contaminated sites were safe they could be returned to use, "and Wiltshire can get back to normal".

The Skripals were found collapsed on a bench in the Maltings shopping centre in Salisbury, prompting a massive police and military investigation.

Ms Skripal and her father were discharged from Salisbury District Hospital in April and May respectively, following treatment.

A number of the locations victims visited, including Queen Elizabeth Gardens and land close to the Maltings shopping centre, have been decontaminated and handed back to the city.

EDITOR'S COMMENT: Does this mean that hypochlorite/bleach and other commercial products, powders, and foams and everything is totally ineffective against Novichok? If yes, we have to rewrite our response plans. If not, why bury the "potentially contaminated items"?

U.K. charges Russians in novichok case, May says "not a rogue operation"

Source: <http://www.homelandsecuritynewswire.com/dr20180905-u-k-charges-russians-in-novichok-case-may-says-not-a-rogue-operation>

Sept 05 – British prosecutors have announced charges against two Russian men they believe poisoned former spy Sergei Skripal and his daughter with a deadly nerve agent, and Prime Minister Theresa May says the government has concluded the suspects were officers of Russia's military intelligence agency.

In a [statement](#) on 5 September, the Crown Prosecution Service (CPS) said that it was "clearly in the public interest to charge" the Russians, Aleksander Petrov and Ruslan Boshirov, with crimes including attempted murder and the use of a chemical weapon.

Police issued photographs of the suspects, while Russia continued to deny involvement.

Prosecutors "have considered the evidence and have concluded there is sufficient evidence to provide a realistic prospect of conviction," it said.

May told Parliament that based on the intelligence gathered so far, "the government has concluded that the two individuals named by the police and the CPS are officers from the Russian military intelligence service, also known as the GRU."

"This was also not a rogue operation," she said. "It was almost certainly approved outside the GRU, at a senior level of the Russian state."

A senior British police official, Neil Basu, called it "the [most significant moment so far](#) in what has been one of the most complex and intensive investigations we have undertaken in counterterrorism policing."

The CPS said that a European arrest warrant had been issued for the two Russians but that Britain would not seek their extradition, suggesting it would be fruitless to do so.

"We will not be applying to Russia for the extradition of these men as the Russian Constitution does not permit extradition of its own nationals," said Sue Hemming, director of legal services at the CPS.

Britain's Metropolitan Police said the men, both about 40, flew from Moscow to London on Russian passports two days before the Skripals were poisoned on March 4.

"It is likely that they were travelling under aliases and that these are not their real names," the police said, asking anyone who knows



the suspects or saw them in Britain to contact the authorities.

Sergei Skripal, a former double agent who was sent west in a 2010 spy swap, and his daughter, Yulia, were found unconscious on a bench in the English city of Salisbury that afternoon.

They were both in critical condition and spent several weeks in the hospital, but were later released and “thankfully are now making a good recovery,” Basu said.

British officials say they were poisoned with Novichok, a military-grade chemical weapon that was developed in the Soviet Union, and blamed Russian President Vladimir Putin’s government for the attack.

Russia denies involvement, and a diplomatic dispute over the case has led to sanctions and the expulsion of more than 150 Russian diplomats from two dozen Western countries.

Speaking ahead of the U.K. announcement, Kremlin spokesman Dmitry Peskov again denied any Russian role in the poisoning, saying that Russia has no new information about it because Britain has refused to share case files.

Russian Foreign Ministry spokeswoman Maria Zakharova said on 5 September that the names and photographs released by British authorities “say nothing” to Moscow.

Russia’s envoy to the world’s chemical weapons watchdog, the Organization for the Prohibition of

Chemical Weapons (OPCW), said that Moscow believes the British announcement was a “provocation.”

“We said right away that Russia had nothing to do with the Salisbury incident,” Aleksandr Shulgin told Russian state media.

Sergei Skripal, a former colonel in Russia’s military intelligence agency, was convicted of treason in 2006 by a Russian court. Moscow released him from prison in 2010, sending him to the West in a Cold War-style spy swap, and he lived in Salisbury at the time of the poisoning. His daughter was visiting from Russia.

On 30 June, two people collapsed in a house in Amesbury, near Salisbury where the Skripals were poisoned with Novichok. Dawn Sturgess died in a hospital in July, while her partner, Charlie Rowley, later recovered. Police said they were exposed after handling what they believed to be perfume.

On 4 September, the OPCW said laboratory tests showed that Sturgess’s death was caused by the same substance that poisoned Skripal and his daughter.

However, it was not possible to conclude whether the nerve agent used in the May and June incidents was from the same batch, the OPCW said.

Moscow: Terrorists in Syria able to produce chemical weapons

Source: <https://en.mehrnews.com/news/137647/Moscow-Terrorists-in-Syria-able-to-produce-chemical-weapons>



Sep 10 – Russian Deputy Foreign Minister Oleg Syromolotov asserted that terrorists in Syria have become able to produce chemical weapons and they receive material and technical support from abroad. In an interview with Sputnik Agency, Syromolotov indicated that terrorists in Syria and Iraq “have scientific and technical documents to produce chemical weapons and they have chemical equipment and facilities, and they of course receive a certain material and technical support from abroad.”

“I don’t want to predict with regard to the possible participation of persons or legal entities from the Western states in supplying terrorists in Syria with chemical substances,” he said.

The Russian diplomat noted that there are field information on that terrorists are preparing for provocations through using chemical weapons in Syria, pointing out that the Syrian side regularly reports accurate information to the Security Council and the Organization for the Prohibition of Chemical Weapons (OPCW) in this regard.

He added that on August 17th, the Security Council was informed on handing several canisters of chlorine to a camp of militants near Halouz village in Idlib province.

On the efforts of combating terrorism, Syromolotov said that according to the standards of the operation of combating terrorism in Idlib and as a general rule, preparations are



underway for this operation carefully and confidentially with the participation of all the parties taking into consideration the humanitarian sides.



He continued that “there is a terrorist gang that exploits the establishment of the de-escalation zone in Idleb and they are fortified in it as they launch attacks against civilians and positions of the Russian armed forces, and Russia can’t stand still towards their crimes.”

He added that during the bilateral meetings, officials of the Turkish regime demanded from Russia “not to use force” to liberate Idleb from terrorists. With regard to reducing the number of Russian forces in Syria in framework of combating terrorism, Syromolotov said that reducing the Russian military presence in Syria is continued and it is related to the

success in eliminating the remnants of terrorists on the ground and enhancing the Syrian armed forces.

UN confirms 33 chemical attacks, constituting war crimes, by Syrian regime since 2013

Source: <http://www.homelandsecuritynewswire.com/dr20180914-un-confirms-33-chemical-attacks-constituting-war-crimes-by-syrian-regime-since-2013>

Sept 14 – The United Nations reported Wednesday that the Assad regime in Syria continues to use chemical weapons against civilian targets, including three chlorine gas attacks on a rebel-held Damascus suburb and on Idlib province this year that constitute war crimes, the *Jerusalem Post* [reported](#).

The latest evidence brings to 39 the total number of chemical attacks registered by the Commission of Inquiry on Syria since 2013. The perpetrators behind six of the attacks could not sufficiently be identified, while 33 atrocities were conclusively attributed to the Syrian regime.

“To recapture eastern Ghouta in April, government forces launched numerous indiscriminate attacks in densely populated civilian areas, which included the use of chemical weapons,” the U.N. report said, referring to incidents on Jan. 22 and Feb. 1 in a residential area of Douma, eastern Ghouta, outside the capital.

“The Commission concludes that, on these two occasions, government forces and or affiliated militias committed the war crimes of using prohibited weapons and launching indiscriminate attacks in civilian-populated areas in eastern Ghouta,” U.N. officials added.

Weaponized chlorine is considered a chemical weapon and its use is banned under the Chemical Weapons Convention, ratified by Syria, and under international law.

In the northwest province of Idlib – where the regime and Russian forces are gearing up for an all-out assault on the last rebel stronghold – chlorine was also used on February 4, the U.N. report said.

“Government helicopters dropped at least two barrels carrying chlorine payloads in the Taleel area of Saraqeb,” it charged, adding that at least 11 men were injured. “Evidence analyzed by the Commission confirmed the presence of helicopters in the area and the use of two yellow gas cylinders.

U.S. Defense Secretary Jim Mattis [said](#) Tuesday that the Syrian regime has been warned against any chemical weapons use in an anticipated assault on Idlib province. “In Idlib, we’re watching very closely what the Assad regime, aided and abetted by the Iranians and the Russians are up to there,” Mattis told Pentagon reporters.

In recent years, the Assad regime has frequently employed banned chemical weapons against civilian targets. Following the attack in Ghouta, the regime and its ally, Russia, were accused of attempting to cover up the use of chemical weapons. Inspectors from the Organization for the Prevention of Chemical Weapons (OPCW) were not given access to the site for two weeks. The *New York Times* [reported](#) that details omitted from a UN report in June implicated both Iran and Syria for the use of chemical weapons in Ghouta.



... soon!



By Robert Hunziker

Source: <https://dissidentvoice.org/2018/09/homespun-terrorism/>

Sept 12 – For years now NSA and the Pentagon have feared foreign terrorists poisoning aquifers and municipal water supplies.

Come to find out, forget those foreign terrorists! The poisoning is already happening, internally, homespun! ISIS and al Qaeda are not needed. We're poisoning our own people without the assistance of professional terrorists.

It's homespun terrorism, right here in the good ole US-of-A, and the Trump administration is turbo-charging that terrorism by hacking apart the EPA.

Want proof: Ask any long-standing EPA employee about it: They're aghast!

Trump's motto: "Make EPA Ineffective Again."

The Trump administration, after heavy lobbying by the chemical industry, is scaling back the way the federal government determines health and safety risks associated with the most dangerous chemicals on the market.¹

Here's what citizens need to know about Trump's EPA Wrecking Crew: The new mandate at EPA is to focus on "possible harm caused by direct contact with a chemical in the workplace or elsewhere," meaning that once disposal of chemicals takes place there is no longer a cause for restricting or banning the toxic chemical.

According to the *New York Times*' article:

The E.P.A. has in most cases decided to exclude from its calculations any potential exposure caused by the substances' presence in the air, the ground or water.

Or, here's another way to look at it: If toxic chemicals happen to show up in your drinking water, well, too bad!

In that regard, it just so happens that a North Carolina resident named Emily Donovan recently appeared before a congressional subcommittee EPA hearing and asked this revealing question: "Who in authority can tell me if the 16 mystery PFASs I found in the tap water at my children's public school are safe to drink?"²

The answer to Ms Donovan's question: Nobody knows for sure if the water at her child's school is safe to drink, but it does contain 16 different alliterations of base chemicals PFAS.

Wow! "Sixteen mystery PFAS chemical compounds," and nobody knows if that drinking water is safe for children... It's not!

Emily Donovan lives near Cape Fear, NC where discharges from chemical plants are responsible for high levels of PFAS or perfluoroalkyl and polyfluoroalkyl chemical substances. Recent government testing shows PFAS to be dangerous to health "at much lower doses than previously thought," as well as linked to cancer. But not to worry, Trump (cough, cough) is in charge now.

In point of fact, PFAS is one of the biggest emerging health threats to public water systems throughout America. Whew, not to worry, Trump is in charge now! And because of its pervasiveness, it's now a bipartisan issue in Congress. That's an unbelievable accomplishment!

For example, in a Congressional subcommittee meeting about the EPA's handling of toxic chemicals, the following was said by a representative: "What is the timeline?" asked Republican Rep. Tom Upton of Michigan, who spoke of one community in his state ordered not to drink its contaminated water for nearly a month this summer."³

Imagine no faucet water for a month... think about it! Who'd want to drink it thereafter, forever thereafter? Republican Congressman Upton also released a report showing groundwater at the military base in Battle Creek, Michigan with PFAS levels "up to 757 xs higher" than EPA safety standards. That's enormous: Multiply 757 times a salary of \$25,000; it equals \$19 million in salary; 757xs anything is big, especially when it comes to toxic chemicals! That's a disaster-plus-plus scenario!

Not only that, peer-reviewed studies of tens of thousands (10s of 1,000s) of people in the Ohio River Valley exposed to PFAS found "probable links to kidney cancer, testicular cancer, ulcerative colitis, thyroid disease, hypertension and high cholesterol."³

But not to worry, Trump's (ahem!) in charge now.



According to Peter Grevatt, head of the EPA's water division, the EPA is considering formal declaration that the specific PFAS, although no longer manufactured, be classified as hazardous substances. Really? That's the good news!

Here's the bad news: Mr. Grevatt claims the aforementioned PFAS compounds are not... "the no. 1 challenge we face."

A much bigger problem exists: Tens of thousands (10s of 1,000s) of versions of PFAS exist actively today, widespread throughout the country. In other words, the toxic chemical juggernaut is totally out of control, dispersed throughout the USA, similar to turning armies of ISIS loose on American communities, but in this case *Made in America*.

Not only, but according to the Environmental Working Group, the EPA itself, on an internal basis, piles danger upon danger: "The Scariest Trump Appointee You've Never Heard Of" is Nancy Beck straight out of the American Chemistry Council (\$9 million lobbying, mostly to Republicans) to serve as Deputy Assistant Administrator of the EPA to: "Protect you, your family, and the environment from potential risks from pesticides and toxic chemicals."⁴ You've gotta be kidding!

Ms Toxicity Nancy's career includes: (1) crafting political agendas for the chemical industry for years; (2) reprimanded by a congressional committee for "very disturbing attempts to undermine EPA science"; (3) serving as a vocal critic of EPA safety findings in the face of "her own fundamentally flawed approach to chemical safety issues."³

During the G.W. Bush administration, she was criticized by the National Academy of Sciences for her "fundamentally flawed approach to chemical science." Now, she's in charge!

"Beck has been described as a "powerful critic" of EPA's Integrated Risk Information System, or IRIS program, which researches chemical toxicity. IRIS assessments have traditionally played a big role in informing the rules that EPA and state governments adopt to protect people from toxic chemicals."³

Well, well, well... now that members of Congress on both sides of the aisle have finally started to wise-up as to the depth and breadth of America's toxic chemical problems, poisoning its own citizens, the Trump administration installs the archenemy of the "strongest and best EPA rulings."

Good gracious! People should assemble in the streets and demand a recall! After all, it is known that EPA career-employees have expressed "concern," actually "deep concern" about changes in implementation rules since Beck arrived.⁵

Not only is Toxic Nancy in charge but also timeliness now becomes a critical issue as school officials wonder about toxic water at fountains in school hallways. The new school year just started.

"How do we create that sense of urgency?" Rep. Debbie Dingell, a Michigan Democrat, asked Peter Grevatt, head of the EPA's office of drinking water. 'PFAS in Michigan is scaring people more than the Flint water crisis.'³

Maybe Trump should hold one of his infamous political rallies in Flint. He could have those life-sized poster boards of supporters in the background standing behind him (many of the supporters standing behind him are cutout poster boards of people) hold up signs saying, "Trump for Clean Water."

Wonder if Michael Moore could be convinced to stand amongst the cutout poster boards of people in the background behind Trump? That would be special and, of course, very convincing of Trump's sincerity.

A smiling Michael Moore (maybe a poster board cutout of him, maybe not) standing behind Trump, holding up a sign: "Trump for Clean Water."

Postscript:

Unacceptable levels is powerful. It tells the story of toxic chemicals in just about every aspect of our lives, and the egregious lack of regulation. Our ability to protect our families is at stake.

— Joan Blades, Progressive Political Activist

Robert Hunziker (MA, economic history, DePaul University) is a freelance writer and environmental journalist whose articles have been translated into foreign languages and appeared in over 50 journals, magazines, and sites worldwide.





CBRN country profile: BRAZIL

By Col. Chamon Malizia De Lamare

CBRN Advisor to the Joint Operations Chief

Brazilian Ministry of Defense

Source: <http://nct-magazine.com/september18/country-profile-brazil/>



The chemical, biological, radiological and nuclear defense sector in Brazil has received great attention in recent years. The rise of CBRN, to a level of great importance, was due to events that have occurred within the last decade.

Brazil hosting the Pan-American Games, the 2014 World Cup and the 2016 Olympic Games in Rio brought many heads of state and other VIPs to the country at one time. This not only tested the capacities, but also enhanced the knowledge of the Brazilian Armed Forces along with many other specialized agencies, ministries, first responders and healthcare professionals, on CBRN defense.

The experience gained through hosting so many high-visibility events (HVEs) brought a great amount of international recognition to Brazil. For example, the Organization for the Prohibition of Chemical Weapons (OPCW) sent a delegation to Brazil, as a signatory to the Chemical Weapons Convention and as a partner for the development of activities to promote international security with regard to the control of chemical weapons, aiding states parties, and promoting cooperation, in order to encourage the pacific use of sensitive goods such as chemicals. To reach this objective, **in December 2016**, the Minister of Defense of Brazil created, together with other national organizations such as the Ministry of Foreign Affairs, the Regional Center for Assistance and Protection Against Chemical Weapons (CAPAQ). The center is in charge of organizing, planning and coordinating training exercises, laboratory reports, inspections and other activities required within the scope of the objectives laid out for Brazil. The Regional Center also takes existing structures between the Brazilian Army, Navy and Air Force into account as they have, and still do, act together along with other government agencies for the purpose of optimizing procedures. These are also considered, as these three branches have and continue to cooperate within existing international conventions, in response to internal situations in the realm of civil defense work such as in the face of national disasters, incidents involving hazardous chemicals or even in the planning of the transport of highly sensitive biological components.

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

Col. Chamon De Lamare is currently a CBRN Advisor to the Joint Operations Chief in the Ministry of Defense of Brazil. Before becoming an advisor to the Joint Operations Chief, Col. De Lamare headed the CBRN Section of the Ministry of Defense. His outstanding military career includes the positions of Commander of the 26th Campaign Artillery Group and Advisor to the Ministry of Defense in the Department of International Affairs. In 2014, he managed the implementation of the Chemical, Biological, Radiological and Nuclear Defense System of the Brazilian Army. Then from 2015 to 2016 he was the Military Adviser on Combating Terrorism in CBRN at major events, in the special advisory group of the Ministry of Defense to plan these activities, and promote various interagency trainings and other activities with the different bodies involved in the preparation and coordination, such as the police and other ministries.

EDITOR'S COMMENT: All these after the 2016 Olympic Games. Not a single word about experience gained due to the games. And even now, not a word about the involvement of the medical sector. They all forget that field operations might be over in 24 hrs but medical/hospital operations will last for weeks, months even years. Perhaps what I am commenting on is classified information (why?).



Perhaps it is the same huge gap as it was in previous Olympic Games (why not?). It does not matter. What really matters is a serious approach to a potential threat that one day might happen somewhere in our world. Perhaps in your country; in your shift; in your city; in your hospital. Be prepared!

Saudi and US militaries in WMD attack training

Source: <http://www.arabnews.com/node/1373111/saudi-arabia>



Sept 16 – The militaries of Saudi-Arabia and the United States rehearsed a joint response on Sunday to an attack using weapons of mass destruction.



Military and medical officers wearing decontamination suits rushed to aid stricken victims in the mock scenario, SPA reported.

The training began after the operations center received a report stating that a contaminant was present due to enemy action.



Reconnaissance and detection teams were sent to the contaminated area, wearing protective gear. The wounded were evacuated to a non-contaminated area to cleanse the injured from contaminants and transfer them to private field hospitals.

The exercise included US forces and all branches of the Saudi armed forces, as well as the military's medical services, the Ministry of Health, Civil Defense and the Saudi Red Crescent.

The training was part of the Shield 2 exercises with the United States that began earlier this month.

EDITOR'S COMMENT: I have seen this picture so many times. Why they do not pay any attention to photos going public? A photo might reflect the level of training of a unit and the two first responders standing in front would be dead in a real incident. In the second photo: PPE but regular army boots? I would also like to see if they were shaved as well!

Photo intel



EDITOR'S COMMENT: It does not matter if this photo is from a real search for chemical weapons or from a training drill. It matters because personnel is not properly dressed. Because if it is not necessary to wear the hood, life behind the gas mask would be much more comfortable not to say pleasant. By the way this photo shows US military in Iraq a decade ago or more searching for WMD.

Swiss confirm Russians tried to hack lab analyzing Skripal samples

Source: <http://www.homelandsecuritynewswire.com/dr20180917-swiss-confirm-russians-tried-to-hack-lab-analyzing-skripal-samples>

Sept 17 – The Swiss government has confirmed reports that Dutch authorities had arrested and expelled two suspected Russian spies earlier this year after the two allegedly tried to hack a Swiss laboratory that conducts chemical weapons tests.

Switzerland summoned the Russian ambassador to protest an “attempted attack” as Moscow rejected the allegations, the latest Western claim about Russian spying and other acts of interference.

This time, the alleged target was the Spiez Laboratory, which analyzed samples from the March poisoning of former Russian spy Sergei Skripal and his daughter in England.



The confirmation by Switzerland's Federal Intelligence Service (FIS) to AP on September 14 came after reports by the Dutch newspaper NRC Handelsblad and the Swiss newspaper *Tages-Anzeiger* that two Russians suspected of working for Russian military intelligence, known as the GRU, were kicked out of the Netherlands earlier this year as part of a Europe-wide investigation.

Tages-Anzeiger said the two were arrested in The Hague in the spring, although it was unclear exactly where or when.

"The Swiss authorities are aware of the case of Russian spies discovered in The Hague and expelled from the same place," FIS spokeswoman Isabelle Graber said in an e-mail to AP. She said the agency helped prevent "illegal actions against a critical Swiss infrastructure," and declined further comment.

Switzerland's Foreign Ministry said on September 14 that it summoned Russia's ambassador to "protest against this attempted attack" and demanded that Russia "immediately" end its spying activities on Swiss soil.

But Russian Foreign Minister Sergei Lavrov dismissed the charges and questioned why it took so long to come to public light.

"I cannot suppose that such an occurrence, in which the specialists of three Western countries participated, could remain out of the field of view of the mass media," Lavrov said on September 14 after meeting with his German counterpart in Berlin, Russian news agencies said.

The AFP news agency reported on September 15 that the two Russians expelled from the Netherlands are also being investigated by Swiss authorities for an attempted cyberattack on the World Anti-Doping Agency (WADA).

A spokeswoman for the Swiss Attorney General's Office confirmed to AFP that the individuals linked to the alleged hack at WADA's Swiss office "are those affected by the operation mentioned by the Federal Intelligence Service" in connection with the Spiez laboratory attack.

WADA has so far not offered public comment on the report.

WADA, based in Montreal, suspended Russia's Anti-Doping Agency (RUSADA) in 2015 over alleged state-backed doping.

On September 14, WADA announced that its independent Compliance Review Committee (CRC) had recommended that RUSADA be reinstated.

WADA said the CRC had reviewed a letter from the Russian Sports Ministry it said had "sufficiently acknowledged the issues identified in Russia," thus fulfilling the first of two remaining criteria for its reinstatement."

For the second outstanding criterion, the CRC accepted that the new commitment to provide access to the data and samples in the Moscow laboratory to WADA via an independent expert would be sufficient to justify reinstatement," WADA added in the statement.

Enhancing CBRNE Safety & Security: Proceedings of the SICC 2017 Conference

Science as the first countermeasure for CBRNE and Cyber threats

Malizia, Andrea and D'Arienzo, Marco (Eds.)

Source: <https://www.springer.com/us/book/9783319917900#aboutBook>

Presents numerous scientific papers on CBRNE safety and security

Part 1: <http://www.biomedicineandprevention.com/content/vol-3-cbrne-safety-special-issue-part-1>

Part 2: <http://www.biomedicineandprevention.com/content/vol-4-cbrne-safety-special-issue-part-2>

How to CBRN-proof your hospital (by the Editor of C²BRNE Diary)

Full text: <http://www.biomedicineandprevention.com/manuscript/how-cbrn-proof-your-hospital>



Berlin hospital says “highly plausible” Russian activist was poisoned

Source: <http://www.homelandsecuritynewswire.com/dr20180917-berlin-hospital-says-highly-plausible-russian-activist-was-poisoned>

Sept 17 – **German doctors treating Pyotr Verzilov have said that the anti-Kremlin activist was probably poisoned, and a Moscow newspaper reports a possible connection with the killing of three Russian journalists in the Central African Republic (C.A.R.) in July.**

The developments on September 18 deepened the mystery surrounding the sudden illness of Verzilov, a member of the punk protest band Pussy Riot and the dissident art troupe Voina who was flown to Berlin for treatment three days earlier.

“The impression and the findings that we now have, as well as those provided by colleagues from Moscow, suggest that it was highly plausible that it was a case of poisoning,” Kai-Uwe Eckardt, a doctor at Charite hospital in Berlin, told a news conference.

Eckardt’s colleague, Karl Max Einhaeupl, said that there was so far no other explanation for Verzilov’s condition and no evidence that the activist, who was initially hospitalized in Moscow, was suffering from a long-term illness.

Eckardt said Verzilov’s condition was not life-threatening. He said the symptoms indicated a disruption of the part of Verzilov’s nervous system that regulates the internal organs, but that the substance responsible for the poisoning hadn’t yet been determined.

Verzilov, 30, fell ill on September 11 after a court hearing in Moscow, and later suffered seizures while being taken to a hospital in an ambulance. Friends said he began losing his sight, speech, and mobility. The Reuters news agency quoted Jaka Bizilj, the managing director of the Berlin-based Cinema for Peace human rights group, as saying his group had paid for Verzilov’s flight to Berlin and that Russia had been “cooperative.”

Bizilj said that Verzilov suffered seizures while being taken to a Moscow hospital by ambulance.

Verzilov’s ex-wife, Pussy Riot member Nadezhda Tolokonnikova, told the German newspaper Bild he believed he was “poisoned intentionally, and that it was an attempt to intimidate him or kill him.”

Footage posted by Tolokonnikova showed Verzilov sitting up in the plane on the tarmac in Berlin and he appeared to be alert.

In a [September 18 report](#) the independent Russian newspaper Novaya Gazeta said that on the day he was hospitalized, Verzilov was to have received a report from “foreign specialists” investigating the [killings in C.A.R.](#)

Russian journalists Orkhan Dzhemal, Aleksandr Rastorguyev, and Kirill Radchenko, were killed on July 30 in C.A.R., where they were working on a documentary about the possible activities there of a [shadowy Russian paramilitary group](#) with alleged Kremlin ties.

The Novaya Gazeta report, which cited sources it did not name, said that Verzilov was a close friend of Rastorguyev and had himself been planning to travel to C.A.R. with the trio but decided to remain in Russia to support jailed Kremlin opponents.

Verzilov is a co-founder of the website Mediazona, which reports on the trials of Russian activists, prison conditions, and other aspects of the Russian justice system. He has both Russian and Canadian citizenship.

In July, he was sentenced along with other Pussy Riot members to 15 days in jail for briefly interrupting the July 15 World Cup final in Moscow between France and Croatia by running onto the field wearing fake police uniforms.

Verzilov became known as a member of the Voina (War) art troupe in the late 2000s.

He performed with then-wife Tolokonnikova, who went on to form Pussy Riot with Maria Alyokhina and Yekaterina Samutsevich.

Alyokhina and Tolokonnikova founded Mediazona in 2014, with Verzilov becoming publisher.



Kremlin critics accuse the Russian authorities of poisoning several journalists, Kremlin foes, and others who have died or fallen mysteriously ill since President Vladimir Putin came to power in 2000.

Verzilov's sudden illness came against the backdrop of outrage over what British authorities say was the poisoning by Russian military intelligence officers of former Russian spy Sergei Skripal and his daughter with a nerve agent in England in March, and the death of a woman police say was exposed to the substance after the alleged attackers discarded it.

UK DSTL-led Project Minerva tests chemical detection robots and drones

Source: <https://www.army-technology.com/news/dstl-project-minerva-chemical-detection/>



Sept 19 – The UK Defence Science and Technology Laboratory (DSTL)-led Project Minerva has tested a new fleet of lifesaving robots and drones.

The systems are designed to help detect harmful chemical agents, provide 3D mapping and identify casualties.

Co-funded by the UK Ministry of Defence (MoD) and the Home Office, the multi-million-pound project was contracted through the Defence and Security Accelerator (DASA) with funding from Defence Science and Technology (DST).

The research focused on the study of robots that can 'read' and climb stairs, and miniature drones, which weigh less than a bar of soap, and can soon be deployed into service to help rapidly assess hazardous scenes.

Phase II of Project Minerva has been designed to reduce the risk to emergency services and front-line troops attending incidents or operations involving hazardous chemical or biological materials.

Four teams, which were selected during the first phase of the research project, further developed their concepts in Phase II.

During the two-week-long trials conducted at Gloucestershire Fire Service College in the UK, concept drones and robots were deployed in simulated contaminated scenarios in both homeland and battlefield environments.



DSTL autonomy lead Peter Stockel said: “These two weeks of trials see the culmination of over 18 months of work to realise an exciting vision, which could see robots and humans working together in demanding situations and potentially save lives when dealing with incidents involving hazardous substances.

“In this ‘technology exploration’, we’ve been working with industry and academia to rapidly advance robotic and autonomous solutions to enhance our response options and tools for the near future.”

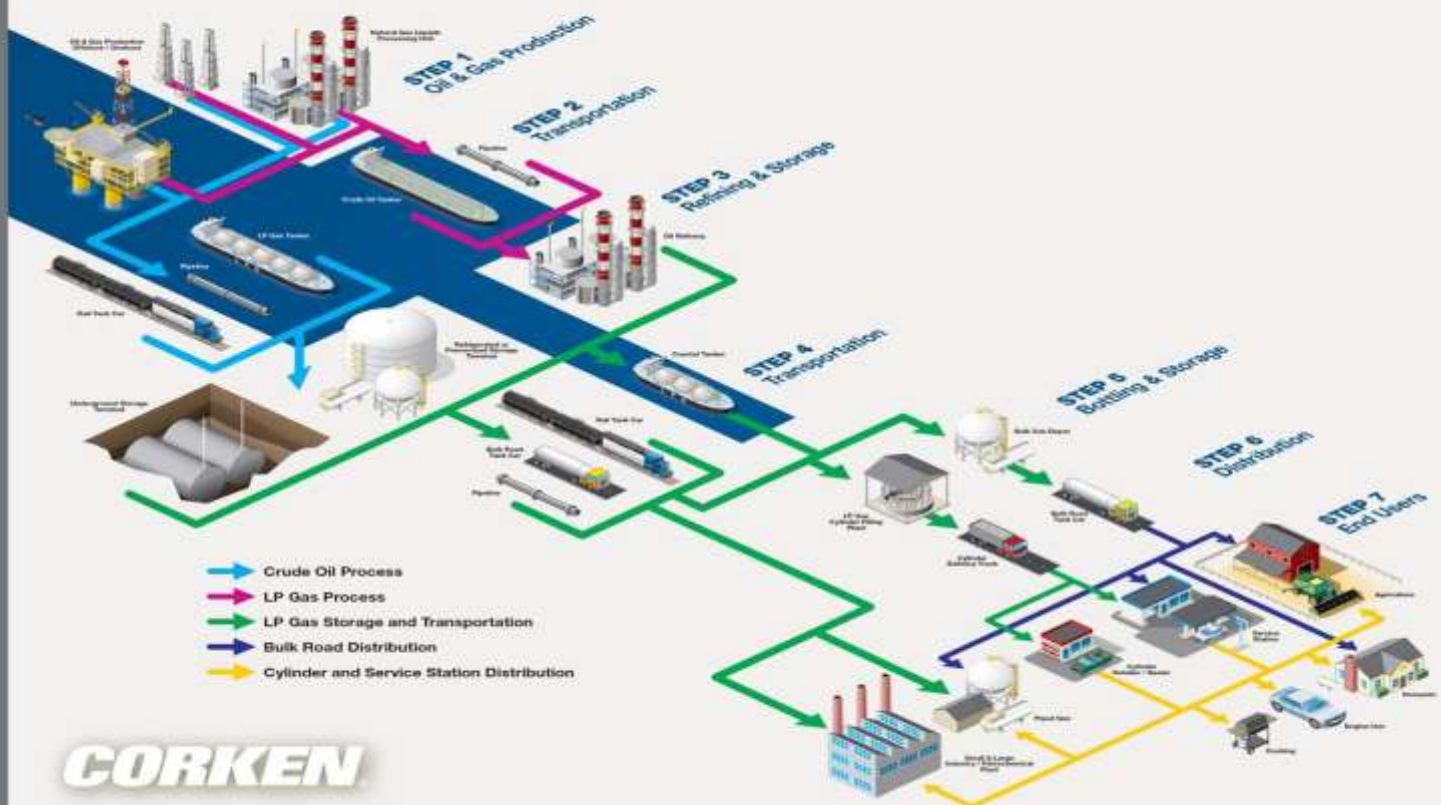
The hazardous chemical detection technology was tested against the speed and accuracy of human response teams supported by scientists from the DSTL, in addition to the military, police and fire services. Launched in September 2016, Project Minerva was supported by more than £3m in joint funding over a period of 24 months.

Revisiting federal safety regulations for liquid petroleum gas distribution systems

Source: <http://www.homelandsecuritynewswire.com/dr20180920-revisiting-federal-safety-regulations-for-liquid-petroleum-gas-distribution-systems>

Sept 20 – Current federal safety regulations for small distribution systems used for propane and other liquefied petroleum gases (LPGs) should be improved for clarity, efficiency, enforceability, and

Liquefied Petroleum Gas (LPG) Distribution Chain



applicability to risk, says a [new report](#) from the National Academies of Sciences, Engineering, and Medicine. Because compliance with the federal regulations is not enforced



consistently by states, there is little understanding of how the requirements affect the safety of the gas pipeline systems, particularly the smallest ones with fewer than 100 customers.

NAS [says](#) that while most LPG systems consist of a storage tank and supply lines that serve a single home or business, some systems are configured to deliver LPG to multiple homes or businesses. When these multi-user systems serve 10 or more customers, or if they have two or more customers and part of the system is located in a public place, they become subject to federal safety regulations administered by the Pipeline and Hazardous Materials Safety Administration (PHMSA) of the U.S. Department of Transportation. The federal regulations, which are LPG-specific and apply to all LPG systems regardless of the number of customers, supplement the safety standards of the National Fire Protection Association (NFPA). In most cases, states enforce the federal regulations as well their own regulations and the NFPA codes.

Congress asked for a study of whether the federal regulatory requirements, which also apply to large natural gas distribution systems, are appropriate for small LPG systems that must already comply with the NFPA codes. The committee that carried out the study and wrote the report reviewed records of pipeline incidents and found that serious incidents involving LPG distribution system are infrequent. The committee also found evidence that many small multi-user LPG systems are not being inspected regularly for compliance with federal regulations, possibly due to inconsistent regulatory interpretations about when a system falls under the requirements and state regulators having limited resources to identify and inspect the smaller systems. An apparent source of state-to-state variability in enforcement is different interpretations by states and operators about what constitutes a “public place.”

Without more complete information on the number, location, configuration, and condition of multi-user LPG systems, the committee said it would be a mistake to make changes to the safety regulatory framework based on simple criteria such as the number of customers on a system. Therefore, the committee recommended that a series of steps be taken to better identify the location, condition, and risk characteristics of small multi-user systems and to ensure that the regulatory requirements and their enforcement are appropriate to those risks.

Congress should direct PHMSA to ensure the term “public place” is uniformly interpreted by regulators and LPG pipeline operators alike, the committee said. Operators of LPG pipeline systems also should be required to report to regulators the location, number, and safety performance of their systems that fall under federal jurisdiction. Once those systems have been identified and inspection activity confirmed by states, PHMSA should allow individual states to develop a waiver program that allows operators to opt out of federal requirements that the state has determined are not in line with the risk presented by the operator’s system. The report notes each state should be required to obtain PHMSA’s approval of its waiver program and have it periodically renewed by the safety agency.

Terrorists turning to basic chemical weapons, US warns

Source: <https://www.9news.com.au/2018/09/20/12/06/terrorists-turning-to-basic-chemical-weapons-in-new-threat-warns-united-states>

Sept 20 – **The number of global terrorist attacks is down but extremists are adopting new technologies such as simple chemical weapons to pose a more “clandestine” threat, a US report warns.**

The US State Department’s *Country Reports on Terrorism 2017* says terrorist incidents fell 23 percent in 2017 from the previous year, while deaths from terrorism were down 27 percent in the same period.

The decline was largely due to the fall of Islamic State in Iraq, where US-led coalition and government forces have retaken most of the territory from the militants.

But the setbacks have resulted in IS, al-Qaeda and other jihadists dispersing and adopting new technologies.

IS has “experimented with and employed small unmanned aerial systems and has used rudimentary chemical weapons”, the report said.



The defeat of IS on the battle field has also resulted in some fighters being forced home or fleeing abroad. There they can provide a hard core of potential leaders able to plan and execute attacks far from the Middle East. Last year IS operatives carried out attacks in England, Spain, Egypt, the US and Philippines. "They have become more dispersed and clandestine, turning to the Internet to inspire attacks by distant followers, and, as a result, have made themselves less susceptible to conventional military action," the report said.

Terrorism expert Dr Isaac Kfir, of the Australian Strategic Policy Institute, told nine.com.au the document highlighted the global threat from extremists remains real.

"Although the report show terrorist attacks are down it stresses the threat is present."

A-Qaeda – overshadowed by the rise of IS – remains a powerful force in global terrorism. The group was responsible for a number of outrages in 2017 including a Mogadishu truck bomb attack that claimed 300 lives.

"Al Qaeda is a determined and patient adversary," said Nathan Sales, the US State Department's co-ordinator for counterterrorism.

The third major threat to the US is Iran, the report says.

It describes the Islamic country as the "world's leading state sponsor of terrorism". Iran, it claims, is responsible for stoking conflicts against the US in Syria, Yemen, Iraq, Bahrain, Afghanistan and Lebanon. Earlier this year, the US reimposed sanctions against Iran after the Trump Administration withdrew from the 2015 nuclear deal. "The emphasis on Iran may be an attempt to justify the administration's hardline stance," said Dr Kfir. The report noted a general increase in global co-operation to combat terrorism including blocking financial links to the groups.



ICI
International
CBRNE
INSTITUTE



C²BRNE
DIARY

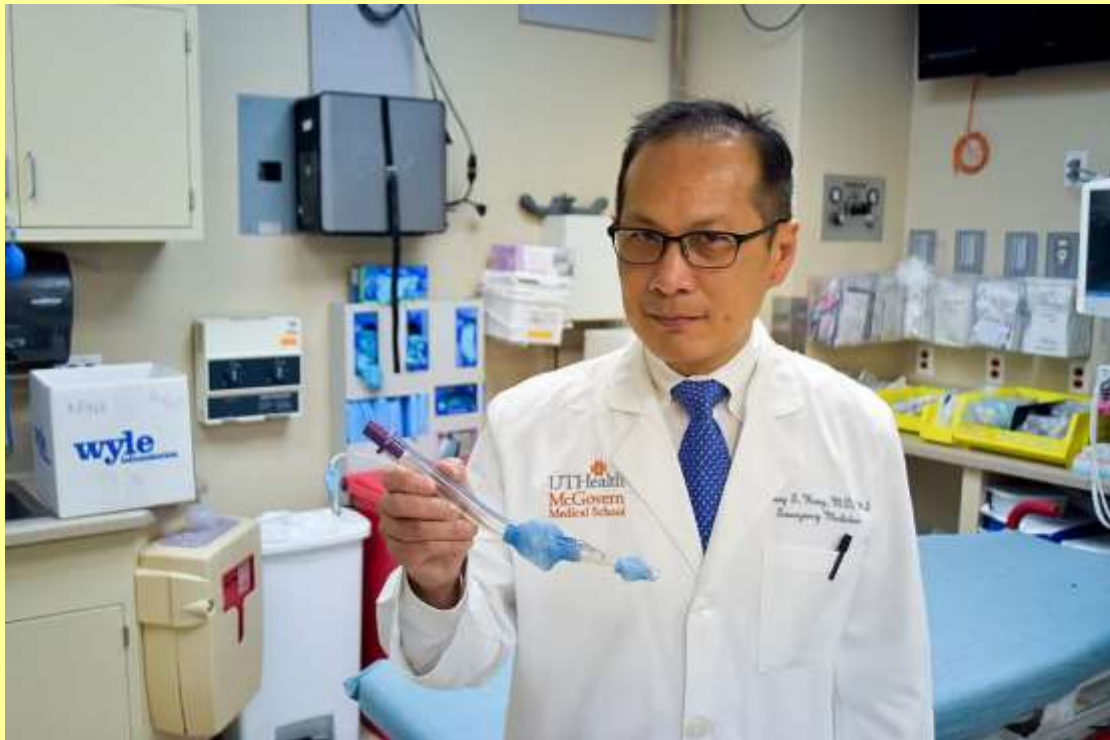
BIO NEWS



More patients survive sudden cardiac arrest with new EMS technique

Source: <https://www.nih.gov/news-events/news-releases/more-patients-survive-sudden-cardiac-arrest-new-ems-technique>

Aug 28 – A new study showed that **a change in the type of breathing tube paramedics use** to resuscitate patients with sudden cardiac arrest can significantly improve the odds of survival and save thousands of lives. More than 90 percent of Americans who experience sudden cardiac arrest die before, or soon after, reaching a hospital.



UTHealth's Henry Wang, M.D., displays a newer type of emergency breathing tube that could save thousands of lives. Rob Cahill, UTHealth

"During resuscitation, opening the airway and having proper access to it is a key factor for the survival of someone who goes into cardiac arrest outside of a hospital," said George Sopko, M.D., M.P.H., program director in the NHLBI's Division of Cardiovascular Sciences and coauthor of the study. "But one of the burning questions in prehospital emergency care has been, 'Which is the best airway device?'"

Funded by the National Heart, Lung, and Blood Institute (NHLBI), part of the National Institutes of Health, this study is the largest of its kind to test oxygen delivery methods used by firefighters, emergency medical service (EMS) providers and paramedics. It is the first to show that a particular airway intervention can positively affect patient survival rates. The findings were published online in the *Journal of the American Medical Association*.

"This study demonstrated that just by managing the airway well in the early stage of resuscitation, we could save more than 10,000 lives every year," said Sopko.

EMS providers treat the majority of the 400,000 out-of-hospital cardiac arrests each year. For more than three decades, their standard-of-care technique for resuscitation has been endotracheal intubation — the insertion of a plastic tube into the trachea to maintain an open airway. They use this technique in hopes that mirroring the care given by in-hospital physicians will produce better patient outcomes.



“While identical to techniques used by doctors in the hospital, intubation in these severe and stressful prehospital settings is very difficult and fraught with errors,” said Henry E. Wang, M.D., professor and vice chair for research in the Department of Emergency Medicine at McGovern Medical School at The University of Texas Health Science Center at Houston. Wang was the study’s lead author.

Today, however, new devices such as **laryngeal tubes**, offer simpler alternatives to opening and accessing an airway. These tubes are easier to use, and the trial showed that cardiac arrest patients treated with this alternative had a higher survival rate.

Usually caused by a heart attack, [sudden cardiac arrest](#) occurs when the heart suddenly or unexpectedly stops beating, cutting off blood flow to the brain and other vital organs. The vast majority of out-of-hospital cardiac arrests occur at home, and only about 10 percent of people survive, according to the American Heart Association.

The Pragmatic Airway Resuscitation Trial was a multicenter research study conducted by the [Resuscitation Outcomes Consortium \(link is external\)](#). It compared survival rates among 3,000 adults with cardiac arrest who were treated by paramedic crews from 27 EMS agencies, in Birmingham, Alabama; Dallas-Fort Worth; Milwaukee; Pittsburgh; and Portland, Oregon. Approximately half of the patients received the newer laryngeal tube treatment, while the other half received traditional endotracheal intubation.

Overall, patients in the laryngeal tube group had significantly better outcomes. For instance, 18.3 percent of patients survived three days in the hospital and 10.8 percent survived to reach hospital discharge. For the group with traditional endotracheal intubation, the survival numbers were 15.4 and 8.1 percent, respectively. Also, the proportion of patients surviving with good brain function was higher in the laryngeal tube group.

Part of the National Institutes of Health, the National Heart, Lung, and Blood Institute (NHLBI) plans, conducts, and supports research related to the causes, prevention, diagnosis, and treatment of heart, blood vessel, lung, and blood diseases; and sleep disorders. The Institute also administers national health education campaigns on women and heart disease, healthy weight for children, and other topics. NHLBI press releases and other materials are available online at <https://www.nhlbi.nih.gov>.

Study: H.E. Wang et al. [*Effect of a Strategy of Initial Laryngeal Tube Insertion vs. Endotracheal Intubation on 72-Hour Survival in Adults with Out-of-Hospital Cardiac Arrest: A Randomized Clinical Trial.* \(link is external\)](#) Journal of the American Medical Association. August 28, 2018. DOI: 10.1001/jama.2018.7044

Are we prepared for bioterrorism threats? Researchers, front line responders and policy-makers gather at UNSW Sydney for simulated smallpox epidemic exercise

Source: <https://kirby.unsw.edu.au/news/are-we-prepared-bioterrorism-threats-researchers-front-line-responders-and-policy-makers-gather>

Aug 21 – Preparedness could be the difference between a contained local outbreak and a global pandemic if there was a smallpox attack in the Pacific today, a bioterrorism exercise held at UNSW Sydney discovered.

The hypothetical scenario, designed to test preparedness and response globally to a smallpox attack in our region, brought together key international representatives from departments of health, foreign affairs, defence, police, non-government agencies, vaccine manufacturers and other global stakeholders.

The simulation uncovered that for a disease as infectious as smallpox, every day counts. The most important determinants impacting the spread of the epidemic were finding and isolating people with smallpox, tracking their contacts and vaccinating them and the speed of response. How quickly different systems were able to work together to achieve this was critical.

A hypothetical outbreak of smallpox originating in Fiji was the focus of the scenario. The exercise



was designed by Professor Raina MacIntyre from the Kirby Institute who is the head of the Centre for Research Excellence in Integrated Systems for Epidemic Response (ISER), with Associate Professor David Heslop from UNSW Medicine's School of Public Health and Community Medicine and in conjunction with the Fiji Ministry of Health. The smallpox simulation incorporated lessons from real outbreaks and was based on [previous UNSW research](#), but adapted to Fiji and the Pacific.

"The modelled death rate for smallpox may be as high as 45% if it emerged today," said Professor MacIntyre. "Even though the world successfully eradicated smallpox in 1980, the disease has been on the radar again since scientists used mail order DNA to create a virus very similar to smallpox in a lab in 2017," said Professor MacIntyre. "Smallpox is spread through the air, and is more than twice as infectious as influenza or Ebola. In the case of a biowarfare event, our modelling shows that without a rapid and coordinated response, the epidemic would quickly spiral out of control and become a pandemic."

"There is very little immunity to smallpox in today's population, so anyone who came into contact with smallpox would need to be vaccinated within three to four days of contact to reduce the risk of serious infection and death," said Professor MacIntyre. "Our coordinated regional response should start within seven days of identifying the first case to ensure the best possible outcome and early termination of the epidemic."

In the event of global spread, first responders would need to isolate 70% of smallpox patients and track and vaccinate at least 70% of their contacts. If this drops to less than 53%, it would take over four years and 2 billion doses of vaccine to bring the epidemic under control. The existing World Health Organisation stockpile contains 35 million doses of vaccine. The vaccine could be diluted in such an emergency, but resources to effect large scale isolation and quarantine would be the main problem."

Associate Professor Heslop, who is also a Senior Medical Advisor for the Australian

Defence Force, said these numbers highlight the need for a coordinated response across all levels of society.

"We looked at a worst-case scenario, because the purpose of an exercise like this is to prepare for the worst, while hoping for the best. It is a mammoth task to ensure that the health systems work in close partnership with military, police, emergency services, vaccine and drug manufacturers, the World Health Organisation and many other agencies," said Associate Professor Heslop. "Whilst the probability of a smallpox attack may be low, the impact will be high, and so it is essential we prepare for these scenarios and know exactly what we can do to avoid the worst occurring."

The forum was attended by Senator the Hon Concetta Fierravanti-Wells, Minister for International Development and the Pacific, who said: "The World Health Organisation has told us that it is not a case of if, but a case of when, another major pandemic [of natural or unnatural origin] will strike. This could devastate communities through loss of life, disrupt tourism, trade, investment and people movement, setting back regional economic growth and development. The \$300 million Health Security Initiative for the Indo-Pacific region includes the largest health and medical research commitment ever made under Australia's overseas development assistance program."

The smallpox simulation was held from 16-17 August 2018, at UNSW Sydney, and coincides with [new research from UNSW](#) and [the PLuS Alliance](#) that shows how minimal genetic material could be used to rapidly identify severity and uncover global transmission routes. This workshop was funded by the National Health and Medical Research Council (NHMRC) Centre for Research Excellence, Integrated Systems for Epidemic Response (ISER), along with Emergent Biosolutions and Bavarian Nordic. It was supported by [Global Security PLuS](#).

It was attended by a number of key representatives from Australia, New Zealand, the USA, Fiji and other Pacific countries. Quotes from attendees are included below.

Participant quotes:

"This exercise was a worst case scenario, but realistic. It showed how disastrous a large scale biological warfare attack in a crowded space and relatively impoverished nations could



be. Preparation for such a disaster would help handle large scale outbreaks of such diseases as Ebola, SARS, or avian influenza, not just smallpox. The exercise underscored the importance of communication among nations, and training to handle major infectious disease outbreaks. The attendees found this was time well spent.”

Dr Michael Lane

Former Director of Smallpox Eradication at US CDC and Emeritus Professor, Emory University, USA

“This has been a vivid reminder that bioterrorism threats are on the radar, and has illustrated how a virus such as smallpox might behave in a world where the population is immunologically vulnerable. One of the challenges is the myriad of scenarios that can unfold; whilst we cannot prepare totally for all of them, by working through individual case studies, we can produce the concepts and understand the science of working with multidisciplinary teams to prepare for these kind of threats.”

Professor Michael Baker

University of Otago, Wellington NZ

“Fiji needs to consider a coordinated cross-sector response that covers vaccination, quarantine, isolation, hospital capacity, travel, first responders, workforce and critical infrastructure. We’ve learned that policy assumptions about available resources domestically and overseas may not hold under certain circumstances”.

Dr Devina Nand

Fiji Ministry of Health

“Yesterday’s workshop highlighted the issue of surge capacity. Laboratories and diagnosis can often get left behind, so it is vital that we understand that smallpox is one of many issues in which we must maintain capacity and knowledge around research and development, because this is an area that is changing very quickly. The other thing that has arisen here is that infrastructure must be tailored to address threats present in diverse circumstances, particularly the threat of a major health crisis in a resource-limited country.”

Professor Bill Rawlinson

Medical Virologist from NSW Health Pathology / Conjoint at UNSW

“This workshop highlighted the reality of a bioterrorism threat, and the catastrophic consequences one such as this could have not just locally, but globally. It was pleasing to see the range of people from different disciplines and different stakeholder groups in the room, committed to preparing as best as possible for the potential act of bioterrorism occurring and responding to it in a way that minimises loss of life. There was an acceptance that terrorism, in any form, is not just the responsibility for law enforcement and intelligence agencies, but that combatting these threats requires a whole of society approach.”

Senior law enforcement and counter-terrorism delegate

“The workshop was based on a well-thought scenario supported by modelling and used innovative ways to interact with the audience. It was an excellent opportunity for discussions about epidemic response with participants from the Pacific Islands and from Australia. The wide range of perspectives gave an additional dimension, with contributions from police and defence authorities who were also represented at the workshop. As there is a renewed interest in epidemic response in the Pacific Islands in the context of regional health security, the workshop helped foster thinking about collaborative approaches in this area.”

Dr Tom Kiedrzyński

Principal Advisor, Communicable Diseases, Ministry of Health, New Zealand

“We need better methods to detect and track outbreaks. Tracing outbreaks in near real-time using genomics is almost a reality. In the event of a smallpox outbreak, understanding the accuracy and limitations of modelling methods that use minimal genetic material could mean critical resources are directed to the right places at the right time.”

Mr Dillon Adam

Lead author / PhD student, Biosecurity Program, Kirby Institute, UNSW Sydney



"In a globalized world, disease pathogens do not carry national passports, neither do they respect state sovereignty. The International Health Regulations (IHR) offer an opportunity for effective governance of emerging and re-emerging epidemics and pandemics in an interdependent world".

Obijiofor Aginam
Deputy Director, International Institute for Global Health, United Nations University, Kuala Lumpur, Malaysia

"Phylogeography is a discipline that can inform public health surveillance. We show that in our latest research study by focusing on select smallpox genes. This virus still represents a serious concern among epidemiologists and hopefully this work will help us in a response, if ever needed."

Associate Professor Matthew Scotch
Arizona State University

"We have seen in today's exercise that safeguarding the population against public health threats, whether by accidental, intentional, or naturally occurring causes, requires coordinated strategies at the national level. Collaboration across stakeholders and input from experts from government, defence agencies, academia, industry, first responder groups, healthcare providers, community partners, vaccine manufacturers, and others are key to prepare for, prevent, and protect against these threats. It is vitally important for all countries to have a preparedness plan for such untoward events."

Dr. Kevin Yeo, MBBS
Director, Clinical & Medical Affairs, Emergent BioSolutions

"Modelling various outbreak scenarios is an important component of developing the continuum of biopreparedness. The smallpox scenario we explored these past days highlights the complexity and challenges when considering the capacity of our global systems to prepare for such an outbreak. This workshop has enabled a diverse and knowledgeable group of stakeholders to gather, and to ensure that together, we are moving in the right direction when it comes to responding to these bio threats in general terms, and willing to reflect and respond to this new normal with new thinking and new tools."

Jesper Elsgaard, VP
Global Governmental Affairs, Bavarian Nordic

"I'm convinced more than ever of the need to have the ability for countries to have a rapid reaction force or infectious disease response group that can respond rapidly to emergent infectious diseases, particularly with smallpox as a worst-case scenario."

Dr Craig Dalton
Conjoint Associate Professor, University of Newcastle / Coordinator of flu tracking

Impact of re-emergent smallpox

Research program

Source: <https://kirby.unsw.edu.au/news/are-we-prepared-bioterrorism-threats-researchers-front-line-responders-and-policy-makers-gather>

The challenge

Smallpox virus was eradicated in 1980 but remains a category A bioterrorism agent. Due to loss of immunologic boosting from wild-type infection and the dramatically change in the immunological status of the population, the case fatality rate of an epidemic today might be higher.

The project

The main determinants of severity of a smallpox epidemic are past vaccination and immunosuppression. Advances in medical care and emergence of HIV since eradication of smallpox have resulted in unprecedented levels of immunosuppression, thus increasing population vulnerability epidemics. This project was using the mathematic modelling to estimate the impact of population immunosuppression and residual vaccine immunity on re-emergent smallpox.

The method

A deterministic SEIR model of smallpox transmission was built for New York City and Sydney, two cities with different past smallpox vaccination policies, accounting for major



causes of population immunosuppression and residual vaccine immunity. Sensitivity analyses were conducted on waning of immunity and immunosuppression assumptions. Age specific rates of infection and death from smallpox were estimated and compared by immunosuppression and past vaccination.

The results

At least 19% of New York's and 17% of Sydney's population are immunosuppressed. The highest smallpox infection rates were in persons 0–19 years of age, but the highest death rates were in those >45 years of age. Because of the low level of residual vaccine immunity, immunosuppression was more influential than vaccination on death and infection rates in our model. Despite widespread smallpox vaccination until 1980 in New York, smallpox outbreak severity appeared worse in New York than in Sydney.

The impact

With each passing year, population immunosuppression is a more influential determinant than residual vaccine immunity of the severity of a smallpox epidemic. Immunosuppression is highly prevalent and should be considered in future smallpox outbreak models because excluding this factor probably underestimates death and infection rates.

Project contact

[Ms Valentina Costantino](#)

PhD Student

Bioterrorism: Fear accidents more than attacks

By Rebecca L. Brown

Source: <https://thebulletin.org/2018/08/bioterrorism-fear-accidents-more-than-attacks/>

Aug 29 – Experts and politicians have long stoked fears of a biological terrorist attack. **But in the 17 years since the coordinated terrorist attacks of 9/11, no bioterrorist attack has come to fruition.** Terrorists have tried to launch biological attacks, but their attempts have been plagued with failures. In fact, terrorists are more likely to cause a local epidemic by accident than to succeed in launching a sophisticated biological attack.

Governments and the public should still be concerned about bioterrorism. But considering the risk that terrorists will accidentally cause a dangerous outbreak, government spending should focus more heavily on public health.

Attempted attacks

The Japanese religious cult [Aum Shinrikyo](#), which experimented extensively with toxins such as botulin and anthrax, came the closest to launching a fatal bioterrorism attack. But even with equipment and a team of scientists, and at least nine attempts, the group still lacked the sophistication to succeed in killing even one person. Aum Shinrikyo's [bioterrorist attacks](#) were so inept that, had their botulin and anthrax cultures been potent enough to work, their own people would have been killed when they

accidentally exposed themselves to the liquids while attempting to disseminate them.

Actors with even less sophisticated means should not be expected to meet with greater success, but the risk of deadly mistakes is still high because Sunni jihad groups have determinedly attempted to weaponize bacterial agents and toxins. [Al Qaeda](#), for example, has included bioterrorism planning in its training and plotting from the late 1990s onward.

Ayman al-Zawahiri, the current leader of Al Qaeda, recruited biologists to develop anthrax-based biological weapons. His two high-level recruits, Rauf Ahmad and Yazid Sufaat, were arrested just months after 9/11, heralding a change in Al Qaeda's organizational structure as well as its biological weapons exploration. Al Qaeda became more decentralized, so there was less direct control of biological weapons development, even though some cells still pursued it.

A dangerous accident

In **2009**, the world saw the first deadly sign that terrorists pursuing biological weapons are more likely to unleash a local outbreak than a biological attack. Forty Al Qaeda jihadis in an **Algeria-based cell**, who may have



been experimenting with biological weapons, all [died of plague](#). Had any one of those jihadis interacted with somebody from a nearby community, they could have set off a localized epidemic in rural communities where antibiotics and other medicines are not readily available.

This incident showcased both the risk to any community where terrorists experiment inexpertly with biological agents and toxins, and the lack of sophistication in the safety procedures terrorists are using. Establishing safety precautions sufficient to prevent the spread of infectious diseases is difficult, even in modern facilities, which the Algerian terrorists lacked access to. In the United States, the Occupational Safety and Health Administration strictly regulates [personal protective equipment](#) and [health worker contact](#) with infectious diseases. Without such safety precautions, accidental infections are likely, and cross-infection with the local community is possible, especially if the infected terrorist ventures into a community in search of medicine.

Terrorists are also likely to lack additional protective measures that states have employed to allow work on biological weapons. In his book *Biohazard*, former Soviet bioweaponer Ken Alibek explained that the Soviet Union protected its biological weapons scientists by repeatedly inoculating them with vaccines against the diseases they were working with. Terrorists, however, are unlikely to have access to vaccines. Weaponizable diseases such as plague and anthrax are not commonly contracted in the world today, and a terrorist attempting to obtain vaccines would arouse suspicion. Moreover, the vaccines can't be easily stolen, because they are typically

controlled and stored by governments—and are therefore much more secure than common flu vaccines stored in a pharmacy. Terrorists experimenting with diseases must do so without vaccines or rigorous safety standards, so the risk of an accident is much higher than in an authorized lab.

Prioritize public health

As long as terrorists pursue biological weapons, there is a risk of a bioterrorism attack. But given the much higher chances of terrorists making mistakes when handling dangerous bacteria, governments should refocus their budgets accordingly.

All nations with a domestic terrorist presence should invest in their public health systems to minimize the effects of an accidental terrorist-caused outbreak.

Promoting public awareness of symptoms associated with the diseases terrorists may be using is essential to containing an outbreak and saving lives. Training health professionals to handle these diseases and increasing the availability of vaccines are also vital steps in preparing for a possible outbreak.

Bioweapons accidents are more likely in countries with a large terrorist presence, so nations such as the United States should contribute aid to bolster public health systems in all of the nations where they are already providing defense aid to fight terrorism. Even though a localized accidental outbreak may ultimately be less lethal than an intentional biological attack, it deserves significant policy attention due to its greater chance of occurrence.

Rebecca L. Brown is an MA candidate in the security studies program at the Georgetown University Walsh School of Foreign Service. She holds a BA in international relations from Syracuse University, and she focuses academically on WMD terrorism.

Mathematical model predicts viral outbreaks **two years in advance**

Source: <http://www.homelandsecuritynewswire.com/dr20180830-mathematical-model-predicts-viral-outbreaks-two-years-in-advance>

Aug 30 – Scientists have identified the cause of outbreaks of enterovirus, one of the most prevalent types of virus in the world.



The findings, from researchers at [Imperial College London](#) and published in the journal [Science](#), may help the public and healthcare workers prepare for an outbreak up to two years before it occurs.

The work, funded by the [Wellcome Trust](#), has shown for the first time that the frequency of enterovirus outbreaks over time are linked to birth rates.

Enteroviruses infect mostly children under 10 years old, and strike millions of youngsters every year – 50 million in the U.S. alone.

There are over 100 different types of enterovirus that infect people, causing a range of illnesses, from mild cold-like symptoms such as coughs, sore throat and fever, to more serious conditions such as hand-foot-and-mouth disease, viral meningitis, and encephalitis.

Infections tend to peak during summer and autumn months. Although there are no specific treatments, there is one vaccine available, and others in development.

Finding clues

Imperial [notes](#) that there have been a number of serious enterovirus outbreaks in recent years. In 2014 a particular strain in the U.S. was linked to severe respiratory illness in young children, and there are thought to be over one million cases of hand-foot-and-mouth disease in China each year.

But despite the viruses causing so many infections, scientists still don't fully understand what causes outbreaks.

[Dr. Margarita Pons-Salort](#), co-author of the research from the [School of Public Health](#) at Imperial said: "There are many different types of enteroviruses that infect humans. Some cause epidemics every year, while others cause epidemics every two or three years. However, until now we didn't know what determined the frequency of these outbreaks, or why some viruses seemed to cause large outbreaks in certain years

Birth rate link

In the study, the team found that outbreaks of a given type of enterovirus were largely determined by the number of children born each year and the development of long-lasting immunity against that type following infection.

Once a child is infected with a specific type of enterovirus, they usually develop immunity to further infections with that virus. The team found that after each outbreak there is a time lag - from the end of the initial outbreak to a new pool of children being born who have not encountered the virus. This second group of children then become infected, and a subsequent outbreak occurs.

The team used a mathematical model to simulate these epidemic patterns for each of the 20 most common types of enterovirus.

To build the model, they used Japanese enterovirus surveillance data. Japan keeps incredibly detailed information on enterovirus outbreaks, and the team used 14 years' worth of information to build the model (from 2000-2014).

Preparing for an outbreak

They then tested the model, and found that it was able to predict subsequent outbreaks in 2015 and 2016 for most types of enterovirus.

"The accuracy of our model to explain the data means we now understand why these outbreaks occur, and that they are actually highly predictable" said Dr Pons-Salort.

She continued: "This information could allow medical staff to prepare ahead of the outbreak. Our model will also help design vaccination strategies (i.e. who should be vaccinated and when), and anticipate the impact of the vaccine. For instance, it will allow us to calculate the proportion of children that should be vaccinated to avoid a new outbreak."

The team are now testing their model on data from other countries, to ensure it can be applied to other regions around the world.

Their work also suggested that certain types of enteroviruses can fundamentally change their 'appearance' and become more virulent, or more transmissible between people. The team are now working on methods to understand these changes.



— Read more in Margarita Pons-Salort et al., “Serotype-specific immunity explains the incidence of diseases caused by human enteroviruses,” *Science* 361, no. 6404 (24 August 2018).

Ebola Enters Active Conflict Zones in DRC

By Nolan Quinn

Source: <https://www.cfr.org/blog/ebola-enters-active-conflict-zones-drc>



A Congolese health worker administers Ebola vaccine to a woman who had contact with an Ebola sufferer in the village of Mangina in North Kivu province of the Democratic Republic of Congo, August 18, 2018. Olivia Acland/Reuters

Aug 30 – Few modern diseases elicit the same level of fear as Ebola. Thus, observers were relieved when, in late July of this year, an Ebola outbreak in western Democratic Republic of Congo (DRC) that claimed thirty-three lives was declared over. However, this victory was brief. One week later, a new outbreak was confirmed in eastern DRC's North Kivu province, home to around one hundred armed groups, over one million displaced persons, and the UN's largest and most expensive peacekeeping operation, MONUSCO. As of August 28, seventy-five people have died in the latest outbreak, with more deaths expected as some areas remain inaccessible due to conflict.

Containing Ebola in eastern DRC will be more challenging than the previous outbreak, despite the logistical advantage of having a new vaccine, which was used to stop the earlier outbreak, available in-country. Since North Kivu is an active conflict zone, health workers will need armed escorts to deliver vaccines. These difficulties may have already played a part in Ebola spreading to Ituri province further north—another area where conflict recently reignited.

The Ebola virus can spread through contact with bodily fluids from an infected person, contaminated items (such as needles), and infected animals such as fruit bats and monkeys. Fruit bats, sometimes eaten as bush meat, are considered the primary reservoir for the virus since they do not experience symptoms. Ebola experts believe infected bats began the West Africa outbreak. However, other factors facilitate Ebola's transmission among humans. Unsanitary living conditions, high levels of malnutrition, and unprotected sexual contact can quickly spread the disease.

Movement of refugees and internally displaced persons (IDPs) complicates the emergency response. According to the most recent data from the United Nations High Commissioner for Refugees, there are almost 800,000 refugees from the DRC. More than half are located in Uganda, Rwanda, and Burundi, which border the provinces affected by



the current outbreak; DRC itself hosts more than 540,000 refugees and 4.5 million IDPs. The West Africa outbreak showed that once it reaches densely populated areas, Ebola is much more difficult to control than in remote villages. With poor sanitation and medical care, as well as a \$333 million funding gap, camps housing displaced Congolese—some of which shelter close to 70,000 people—could become breeding grounds for Ebola.

The West Africa outbreak, which spread to ten countries including the United States and caused 11,325 deaths, exhibited the virus's global potential. Worryingly, there are signs this outbreak will continue to spread. On August 14, Dr. Tedros Adhanom Ghebreyesus, director-general of the World Health Organization, said he is "more worried" about the outbreak after visiting the region. On August 29, the International Rescue Committee warned that this outbreak could be the "worst ever seen in East Africa." More than 2,000 people are feared to have come into contact with the disease, a far larger number than those vaccinated or given experimental treatment to cure the disease. If negotiations with militias to allow experts into "red zones" prove unsuccessful, completely suppressing the current outbreak could be nearly impossible.

Nolan Quinn is the Africa program intern at the Council on Foreign Relations in Washington, DC. He is a master of public policy student at the University of Maryland, where he is studying international development policy and international security and economic policy.

Massachusetts man with ricin conviction settles 'no-fly list' lawsuit against FBI, TSA

Source: https://www.masslive.com/news/index.ssf/2018/08/southwick_man_with_ricin_convi_1.html

Aug 31 -- A Southwick man has settled a federal lawsuit against the FBI and Department of Homeland Security over his reported placement on the no-fly list, typically reserved for suspected terrorists.

Michael Alan Crooker, 65 (photo), is apparently



now free to fly the friendly skies after he agreed to dismiss his case. But, the resolution didn't do a whole lot to dispel the mystique of the closely-guarded government list -- which federal officials argue is necessary to maintain national security.

Crooker sued several government agencies after he was fired from a job as an airport shuttle driver for a private company last summer. He had landed a position at LAZ Fly in Connecticut

when he was released from prison after 13 years behind bars, but was fired when an airport official told the company Crooker was on the no-fly list.

In 2007 -- after he'd already been in custody for three years -- Crooker was charged in federal court with weapons of mass destruction-related offenses. He later pleaded guilty to lesser charges including threatening a federal prosecutor and possession of a toxin, ricin, without registration.

The dismissal of his lawsuit against the feds appeared in the public case docket in U.S. District Court. Crooker provided The Republican with a copy of a letter from Homeland Security saying he was off the no-fly list. But the letter is so ambiguously worded that it's unclear whether he was ever on it in the first place.

"DHS ... has determined you are not on the No Fly List. This determination, based on the totality of available information, closes your DHS inquiry," it reads.

Crooker maintains he was only purged from the no-fly list as a concession to urge him to drop his lawsuit -- which was forcing high-level government officials to shine unwelcome light



on closely held procedures around the secret register.

"That's how they do it, with their secret government bull----," Crooker said during an interview Thursday.

Central to Crooker's dispute was the fact that the government previously would neither confirm nor deny his placement on the list. In court filings connected to the lawsuit, FBI and Homeland Security officials said they routinely resist revealing who is on the list so as not to tip off potential terrorists.

A spokesman for the U.S. Department of Justice on Thursday declined to comment or provide any clarity on Crooker's current or past status on the no-fly list.

Crooker was hired by LAZ Fly while still on electronic monitoring, and tasked with driving travelers from an off-site parking lot to their curbside destinations at Bradley International Airport. A few months into his employment, an airport administrator told Crooker's bosses he was on the FBI-managed no-fly list and was therefore banned from the airport property.

He was fired in October, and subsequently sued the airport administrator and the Connecticut state police. Crooker settled that lawsuit for an undisclosed amount earlier this year.

His lawsuit in U.S. District Court in Massachusetts took aim at the FBI, which compiles the no-fly list, and the Transportation Security Administration (TSA), which oversees airport safety.

Crooker represented himself -- as he has in scores of other lawsuits against the government, media outlets and private companies. U.S. District Judge William G. Young recently denied government motions to dismiss or stay the lawsuit, and ordered all parties to be "trial ready" by Oct. 1.

Attorneys for the Department of Justice asked for additional time to file responses to Young's denial of their prior motions and were given a deadline of Aug. 31.

The stipulation of dismissal was filed one day in advance of that deadline.

How Johns Hopkins Hospital preps for infectious disease threats, bioterrorism

Source: <https://www.beckershospitalreview.com/quality/how-johns-hopkins-hospital-preps-for-infectious-disease-threats-bioterrorism.html>

Aug 31 – Baltimore-based Johns Hopkins Hospital practices infectious disease training exercises every few months to ensure staff members are prepared to treat patients with highly contagious diseases, according to [The Baltimore Sun](#).



The Johns Hopkins Biocontainment Unit is one of 10 regional centers in the U.S. designed to respond to infectious disease outbreaks and bioterrorism attacks. The program was established in 2015 amid the Ebola outbreak in West Africa. The unit stationed at Johns Hopkins covers a large

portion of the mid-Atlantic region, including Delaware, Maryland, Pennsylvania, Virginia and Washington.

"We don't know what the next outbreak will bring, but there is certainly a need for us to be prepared for it," Brian Garibaldi, MD, medical director of the John Hopkins Biocontainment Unit, told *The Baltimore Sun*.





General layout of the biocontainment unit. Patient rooms and the laboratory have dedicated space for donning and doffing personal protective equipment. This allows unidirectional flow to reduce the risk of cross contamination. Green indicates clean space; red indicates contaminated space; Yellow indicates doffing rooms. (1) Off-unit area with dedicated elevators, locker room, changing area, and lounge for staff; (2) clean entry and exit space for staff; (3) nurse station; (4) shared donning room for laboratory and Patient Room 3; (5) laboratory; (6) doffing room for laboratory; (7) Patient Room 3; (8) doffing room for Patient Room 3; (9) shared donning room for Patient Rooms 1 and 2; (10) Patient Room 1 with two intensive care unit headwalls; (11) doffing room for Patient Room 1; (12) Patient Room 2; (13) doffing room for Patient Room 2. Used by permission from The Johns Hopkins Health System Corporation.

The unit conducted an Ebola protocol training Aug. 29 using a medical actor transported to the hospital in a disease containment pod. The medical staff treated the fake patient while wearing hazmat suits. The Johns Hopkins Biocontainment Unit is funded until 2020 through a \$4.1 million grant from HHS' Office of Preparedness and Response.

►► Read also: <https://www.atsjournals.org/doi/pdf/10.1513/AnnalsATS.201509-587PS>

Flu plane: are we really ready for a global pandemic?

By Mark Eccleston-Turner

Source: <http://theconversation.com/flu-plane-are-we-really-ready-for-a-global-pandemic-102789>

Sept 07 – An Emirates airliner was quarantined at John F Kennedy International Airport on September 5 after several passengers reported flu-like symptoms. Oxiris Barbot, New York City's acting health commissioner, said the cause of the illness was “probably influenza”.

The following day, [two more flights](#), arriving from the Middle East were quarantined at US airports after passengers reported similar symptoms as those on board the airliner grounded at JFK airport in New York.





Scenes of passengers being whisked off to hospital, wearing masks, caused concern around the globe. But this was just good public health practice – isolate the patient, minimise transmission to others and (hopefully) begin treatment.

But if these events really were the start of a flu pandemic (a worldwide spread of a disease), the world is vastly unprepared for it. There is poor public health surveillance in [many parts of the world](#), there [aren't enough vaccines to go around](#) and the international legal framework designed to ensure vaccines get to the poorest countries is not fit for purpose.

Demand will outstrip supply

Vaccines are [key to a flu pandemic response](#), but we can't make the vaccines in advance. We need to know which flu strain is causing the outbreak before vaccines can be manufactured to protect against it. People typically need two doses of a vaccine to [provide immunity against pandemic flu](#). At least a third of the population need both doses to establish "[herd immunity](#)" and slow the transmission of the virus. This means that during the next pandemic we will need at least 4.7 billion vaccine doses.

The most recent estimates put the potential global supply at around [six billion doses](#) and will take a year to make, but this is based on a best-case scenario and is unrealistic.

Eggs are needed to make the flu vaccine and the six billion figure is based on an assumption that egg supply remains intact. This is unlikely during a bird flu outbreak (the 2009 outbreak and the 1918 Spanish flu outbreak were both bird flu strains). The figure is also based on the manufacturing switch-over from seasonal to pandemic flu vaccines going smoothly – a [notoriously tricky switch](#) that could cause a loss of production. It is also based on all factories with the ability to make flu vaccines making them, without interruption, for an entire year.

In reality, the number of pandemic flu vaccines we can make in a year may be closer to half the most recent estimate. This means a global supply shortfall of nearly two billion doses a year.

Poor countries hit hardest

Despite vaccines being crucial to combating a flu outbreak, poorer countries have long complained that they are unable to access flu vaccines during a pandemic. My research has shown that almost the entire supply is purchased by the wealthiest countries, leaving the world's poorest to rely on donations of vaccines from the [World Health Organisation](#) (WHO).

In an attempt to remedy this problem, the WHO passed the [pandemic influenza preparedness \(PIP\) framework](#) in 2011. This created a "virtual stockpile", a stockpile of vaccines promised to the WHO, but which does not yet exist, of at least 150m doses that developing countries can access during a pandemic. Today, the virtual stockpile has about 230m doses committed to it. This sounds positive, but [my research shows](#) that the number is far too low to meet the needs of poorer countries.

Vaccine makers have committed to supply the flu vaccine to the WHO through a [standard material transfer agreement](#) (SMTA). This is a legal agreement whereby the manufacturer agrees to supply the WHO with a percentage of the vaccines they make in exchange for access to samples of pandemic flu viruses with which to develop vaccines.

Even more worrying than the fact that the WHO stockpile is unable to meet demand, is the fact that it is unlikely the vaccines committed through these agreements will ever be sent to the WHO for onward supply in the first place. If we are faced with a particularly bad



pandemic, it is unlikely the governments of countries where vaccine makers are based will let 10% of vaccines leave the country, regardless of the agreement a manufacturer has with WHO. The SMTAs signed between the WHO and manufacturers even anticipate this [outcome](#).

If the next pandemic is severe, millions of people will die, largely in poorer countries, and largely because they have no access to a vaccine – the one thing that the PIP framework was meant to resolve.

This year is the [100th anniversary](#) of the deadliest flu outbreak in history, the 1918 Spanish flu pandemic, which killed 50-100m people. A major influenza pandemic on this scale will happen again, and the world is unprepared for it.

Mark Eccleston-Turner is Lecturer of Law, Keele Law School, Keele University.

Was Emirates Dubai-New York flight a bout of mass hysteria?

Source: <https://www.thenational.ae/uae/health/was-emirates-dubai-new-york-flight-a-bout-of-mass-hysteria-1.767976>



A passenger has her temperature taken as she leaves Emirates flight 203 at New York's John F Kennedy Airport. Larry Coben via AP

Sep 07 – Many of us will have wondered what germs we are breathing in while sitting on board an aircraft. Hundreds of passengers wedged in their seats for hours on end and breathing the same air might seem ideal for the spread of infection.

Certainly the blaze of publicity surrounding a recent [Emirates flight from Dubai to New York](#) highlighted concerns that passengers might have, whether these are justified by the evidence or not.

Reports in the United States indicated that as many as 106 people on flight EK203 complained of symptoms such as coughing and fever when the Airbus A380 touched down at John F Kennedy Airport on Wednesday morning local time.

Emirates said that [three passengers and seven crew were taken to hospital for tests](#). Authorities subsequently confirmed that those hospitalised tested positive for influenza, or the common cold, but nothing more serious.

Influenza incubation period

Doctors can be sure of one thing: anyone ill with flu on arrival in New York would have contracted the virus before walking on board the aircraft in the UAE.



This is because the incubation period – the time between exposure to an infection and symptoms developing – is much longer than the 14 hours or so that a Dubai-to-New York flight takes.

"It's got to take a couple of days minimum and usually more," said Peter Openshaw, a professor of experimental medicine at Imperial College London who, from 2006 to 2015, was a member of the UK Department of Health's Scientific Pandemic Influenza panel.

This raises the question of **why so many individuals on the flight may have felt ill.**

What Prof Openshaw described as a "mass hysteria" can cause large numbers of people to perceive that they are unwell, even if they are actually fine.

Yet it is the case that pathogens such as the influenza virus can spread between people on aircraft.

"There's evidence of transmission, particularly near the toilet because everyone goes to the toilet and may be leaving infected material on door handles. It's not impossible for outbreaks to happen as a result," said Prof Openshaw.

There are several ways in which the influenza virus can spread on aircraft. For example, particles in the air can be breathed in. Material on door handles can infect a person if they go on to rub their nose or eyes.

When it comes to breathing in infectious particles, the risks are likely to be lower than we might imagine.

Who is at risk of infection on a plane?

Professor John Oxford, co-author of the textbook *Human Virology* and an emeritus professor of virology at the University of London, said filtering systems mean that air on board tends to be clean.

Passenger planes typically are fitted with High Efficiency Particulate Air (HEPA) filters, which are the same type of filters as are found in many home air-purifiers. Recirculated air is also mixed with air from outside.

"A lot of infective bacteria and viruses are filtered out. Your best chance of getting infected is not on the flight, but queuing up, by getting in a taxi," said Prof Oxford.

The key risk, he said, is to those sitting next to or within a few feet of an infectious individual.

Results released by scientists from Emory University in the United States tie in with this. Their findings indicated that the likelihood of transmission to those further away was "low".

Infectious crew members, because of the number of passengers they interact with, may infect multiple individuals. The Emory University researchers found that an ill crew member is likely to infect an average of 4.6 passengers.

People seated next to a window are at lower risk of infection than those in middle or aisle seats.

When inflight air-conditioning breaks

There have been "extremely unusual" cases, Prof Oxford said, where the air-conditioning system breaks down and large-scale infections have resulted, but there is no evidence that this was the case with the Emirates flight.

One much-discussed instance of influenza transmission happened in 1977, when an Alaska Airlines Boeing 737 suffered an engine failure when attempting to take off, and subsequently sat on the tarmac for three hours. Although the air-conditioning system was broken, most of the 54 people onboard remained in the aircraft. As a scientific paper in the *American Journal of Epidemiology* noted, within three days almost three-quarters of passengers developed symptoms such as coughing, fever, headache, sore throat, muscle pain and fatigue – all, reports indicated, from a single infected passenger.

Also, there have been cases where other infections such as severe acute respiratory syndrome (Sars) and swine flu, caused by the H1N1 virus, have spread on board an aircraft.

Although there have been numerous studies of the risk of onboard infections, further research and improved reporting of cases is needed to better understand the risks, Katrin Leitmeyer and Cornelia Adlhoeh, from the European Centre for Disease Prevention and Control, concluded in a 2016 paper in the journal *Epidemiology*.

"There is evidence that influenza transmission aboard aircraft occurs, but the published data do not permit any conclusive assessment of the likelihood and extent," they wrote.



How to avoid catching a cold on a plane

Those concerned about what pathogens they might be exposed to can reduce the risks. Keeping the overhead air vent open is one measure, as it leads to greater throughput of clean air. Not rubbing the eyes or nose is also advised.

Individuals at particular risk of serious illness when exposed to influenza, such as people with asthma, chronic bronchitis or diabetes, might, said Prof Openshaw, consider taking preventative drugs. Oseltamivir, sold under the brand name **Tamiflu**, can prevent flu.

"That's been demonstrated to prevent infection if taken by contacts with people [infected] by influenza," said Professor Openshaw.

To reduce the likelihood of infecting those nearby, ill passengers may choose to keep their overhead air vent open to blow infectious particles towards the floor. Wearing a face mask can also reduce the chance of infecting others.

It is perhaps worth remembering, though, that the global media coverage that the Emirates flight attracted was not the result of multiple onboard infections.

"It's just bad luck it got a lot of publicity," said Prof Oxford.

Turkey – Anthrax (bovine)

Source: <https://ahvalnews.com/turkey/turkey-hit-new-anthrax-outbreak-southeast>

Sept 06 – Turkey has been hit by a new anthrax outbreak in the southeast, as a district in Turkey's southeastern province of Bitlis has been quarantined after 81 cows died over a week because of anthrax, Cumhuriyet newspaper said on Thursday [6 Sep 2018], citing a Milli Gazete [Turkish newspaper] report. All cattle in the Gunkiri district in Bitlis have been vaccinated, and local authorities have said the animals in surrounding areas will also be vaccinated as a precaution against an outbreak.



Security forces have been checking cattle entering and leaving the district, and sales of meat and dairy products have been banned.

Dozens were taken to hospital on Saturday [1 Sep 2018] over suspicions of anthrax in Istanbul, after anthrax was detected in Turkey's capital of Ankara and eastern province of Sivas among cattle imported from Brazil. The Turkish Animal Rights Federation on Thursday [6 Sep 2018] claimed that a Panama-flagged ship allegedly carrying anthrax-infected animals has

been waiting at the southern entrance of Istanbul's Bosphorus Strait. "We also received reports that animals dying of

anthrax were thrown into Marmara Sea," the animal rights group said on Twitter.

Ali Seker, a deputy of the main opposition Republican People's Party (CHP), has filed a parliamentary question asking the Minister of Agriculture to inform the public about the ship, which he said had been waiting at Istanbul's Ahirkapi anchor point for 20 days and carried cattle bought from Brazil, Cumhuriyet reported on Thursday [6 Sep 2018].

Meanwhile, reports of anthrax outbreaks in different parts of Turkey have created panic and outcry on social media. "Help! Doesn't this country have willpower? We are being poisoned," Gokhan Ozoguz, the singer of the famous Turkish band Athena said on Twitter on Thursday [6 Sep 2018]. "Not just anyone would be able to add the fear of contracting anthrax when we eat meatballs for lunch to all our other day-to-day worries. I'd like to congratulate all those involved," another Twitter user said.

Binali Yildirim, Turkey's former Prime Minister and Parliamentary Spokesperson in office, asked the Minister of Health to taste the meat first during a reception in Turkish Parliament on Wednesday [5 Sep 2018], Diken news site reported. Yet pro-government newspaper Yeni Safak on Tuesday [4 Sep 2018] said that some domestic producers, which it labeled as "meat barons," were using the reports of anthrax outbreaks to manipulate the market and increase prices.



Anthrax is enzootic in eastern Turkey and a constant problem, so I am puzzled as to why this outbreak in Bitlis got away from them. Getting all the district cattle promptly vaccinated after the event will slow down new cases. It is hoped that authorities are getting on with vaccinating the cattle in the surrounding districts as well because with 81 sick and dead cows to feed on, the Gunkiri tabanid female flies will be ranging outward to snack with their mouthparts already contaminated on cattle and even the occasional human.
– Mod.MH

Human Cutaneous Anthrax, the East Anatolian Region of Turkey 2008-2014

By Parlak E and Parlak M.

Department of Infectious Diseases and Clinical Microbiology, Ataturk University Faculty of Medicine, Erzurum, Turkey.

Source: <http://www.promedmail.org/post/20160106.3915783>

Abstract

Anthrax is a zoonotic infectious disease caused by *Bacillus anthracis*. While anthrax is rare in developed countries, it is endemic in Turkey. The names of the different forms of the disease refer to the manner of entry of the spores into the body: cutaneous, gastrointestinal, inhalation, and injection. The purpose of this study was to evaluate the clinical characteristics, epidemiological history, treatment, and outcomes of patients with [cutaneous] anthrax.

82 cases of anthrax hospitalized at Ataturk University Faculty of Medicine, Department of Infectious Diseases and Clinical Microbiology in 2008-2014 were examined retrospectively. Gender, age, occupation, year, history, clinical characteristics, character of lesions, length of hospitalization, and outcomes were recorded. 30 (36.6 percent) patients were female, and 52 (63.4 percent) patients were male; ages were 18-69 and mean age was 43.77 ± 13.05. The mean incubation period was 4.79 plus/minus 3.76 days. Cases were largely identified in August (41.5 percent) and September (25.6 percent). 69 (84.1 percent) of the 82 patients had been given antibiotics before presentation. Lesions were most common on the fingers and arms. The most common occupational groups were housewives (36.6 percent) and people working in animal husbandry (31.7 percent).

All patients had histories of contact with diseased animals and animal products. Penicillin-group antibiotics (78 percent) were most commonly used in treatment. One patient (1.2 percent) died from anthrax meningitis. The mean length of hospitalization was 8.30 plus/minus 5.36 days.

Anthrax is an endemic disease of economic and social significance for the region. Effective public health control measures, risk group education, vaccination of animals, and decontamination procedures will reduce the number of cases.

BOOK: The 2001 anthrax deception - The Case for a Domestic Conspiracy

By Graeme MacQueen

Source: <https://www.claritypress.com/MacQueen.html>

The 2001 anthrax letter attacks in the United States killed five people and wounded dozens. They were widely blamed on extremist Muslims and their backers and used to support the invasions of Afghanistan and Iraq. They were also used to justify and hasten the passage of the USA PATRIOT Act, which was being presented to Congress just as the first anthrax victim grew ill.

In October 2001, one of the hypotheses that gained ground was that of the Double Perpetrator, the claim that al-Qaeda was carrying out the attacks with the support of Iraq. Much evidence was put forth to support this Double Perpetrator hypothesis but independent scientists soon discovered that the anthrax spores came from a domestic lab in the US serving the military and intelligence communities, not from al-Qaeda or Iraq.



The FBI then quickly claimed that an individual was responsible for the attacks and began noisily looking for this “lone wolf.” In 2008 the Bureau named Dr. Bruce Ivins of the US Army Medical Institute of Infectious Disease as the “anthrax killer.” Although the FBI remains committed to the Ivins hypothesis, the case has been disintegrating for the last three years. Currently, it is justly held in contempt not merely by scientists who worked with Ivins but by many journalists as well as several US senators. But this raises the question: if Ivins did not commit this crime, who did?

This book presents evidence to support the following points:

- (a) The anthrax attacks were carried out by a group of perpetrators, not by a “lone wolf.” The attacks were, therefore, the result of a conspiracy—by definition a plan by two or more people, made in secret and resulting in an immoral or illegal act.
- (b) The group that carried out this crime consisted, in whole or in part, of insiders deep within the US state apparatus.
- (c) These insiders were the same people who planned the 9/11 attacks
- (d) The anthrax attacks were meant to facilitate a seizure of power by the executive branch of government through intimidation of Congress and US civil society. They were also designed to achieve public acquiescence to and support for the redefinition of US foreign policy, replacing the Cold War with a new and aggressive global conflict framework, the Global War on Terror.

Testimonials

"This short but well-referenced book exposes an important part of the 9/11 deception that helped change many people's view of the world. It encourages those who reject the basis of that aberration to better equip ourselves to resist its continuing, murderous legacy."

Tom Easton, [The Lobster](#)

"Anyone concerned about the truth behind 9/11 and the anthrax attacks should read this profoundly important book. It is filled with tight argumentation backed by solid evidence, and even the speculative parts ring true."

Prof. Edward Curtin. [Read full review](#)

"Professor MacQueen provides yet another piece of the puzzle connecting the terrorist attacks of September 11, 2001 to the immediately following anthrax attacks of October 2001 that were indisputably conducted by Agents of the United States government."

Francis A. Boyle, author of the U.S. domestic implementing legislation for the 1972 Biological Weapons Convention.

"Finally, a book has come out that explodes the FBI's anthrax letters case. Not only is there no evidence linking Army scientist Bruce Ivins to the crime—it turns out his famous flask of anthrax was never proven to be related to the attack spores! MacQueen peeks behind the curtain, showing that nothing about the anthrax letters case is as it seems."

Meryl Nass, MD, consultant on the prevention and mitigation of bioterrorism for the Director of National Intelligence and the World Bank

"Graeme MacQueen provides abundant evidence that the anthrax attacks and the 9/11 attacks, both of which scared the American people into war, were carried out by the same people – people highly placed in the U.S. government."

David Ray Griffin, author of *The New Pearl Harbor Revisited* and numerous books on the 9/11 attacks

"MacQueen's book is a combination of hard reporting and exploring implications of the reporting. It is not a theory. It advances our factual knowledge. It provides more erosion of the official story."

Dr. Paul Craig Roberts, Former Asst. Sect, US Treasury



"In *The 2001 Anthrax Deception*, Dr. MacQueen uncovers the multiple ways Americans were manipulated to believe in their aftermath that the 9-11 attacks and the anthrax attacks were a one-two punch delivered by Muslim terrorists with Iraqi support. Later, when the fact could not be denied that the source of the anthrax attacks was an American military biolab, all the elaborate claims and stories about the connections between 9-11 and anthrax disappeared. Dr. MacQueen shows that indeed 9-11 and anthrax were connected, and that the false-flag, inside job characteristic that inexorably became part of the official version of the anthrax attacks must also apply to 9-11."

Barry Kissin, American attorney and author of *The Truth About The Anthrax Attacks*

"... bites through the "conspiracy theory" taboo to demonstrate in fine detail the key administration and media accusations following one propaganda scenario after another to deceive the public into panic and war fever to frame al-Qaeda and enact its larger global domination project.."

**John McMurtry, Fellow of the Royal Society of Canada and University Professor (Emeritus)
The Cancer Stage of Capitalism / from Crisis to Cure (2013)**

"Professor Graeme MacQueen has written a must-read book on the anthrax attacks on America: *The 2001 Anthrax Deception*. Even those of us who have paid close attention to – and written broadly on – the 2001 anthrax attacks will learn stunning new information."

[Washington's Blog](#)

"When I received *The 2001 Anthrax Deception* I immediately read it cover to cover. I consider the topic to be urgently important, and MacQueen's treatment of it I consider excellent -- one of the most important and persuasive 9/11 books I have read."

Peter Dale Scott, author of *The American Deep State*

"Two of the six events that occurred on 9/11/2001 are especially problematic: the collapse of World Trade Center Building Seven and the Anthrax episode. The perpetrators of the crimes of 9/11 made serious mistakes or encountered unexpected obstacles to their plans for Building Seven and the Anthrax attacks. These produced glaring holes in the official explanations for these events. The absurdity of the NIST explanation for the collapse of Building Seven-- office fires-- has been well-researched and exposed as untenable by numerous respected engineers and scientists. But the anthrax attacks have gone relatively unexamined up to this point. Prof. Graeme MacQueen in his carefully documented book, *The 2001 Anthrax Deception*, has now filled this gap. He makes a persuasive case that the official explanation and the assignment of guilt are false and unsupported by the evidence. The question now is how long we will have to wait for an honest grand jury investigation of the greatest crime in American history."

**David A. Johnson, PhD., FAICP
Prof. Emeritus of Planning, The University of Tennessee**

9/11 Toll Still Grows: 16,000 Ground Zero Responders Who Got Sick Eligible for Compensation

Source: <https://www.hstoday.us/subject-matter-areas/law-enforcement-and-public-safety/9-11-toll-still-grows-16000-ground-zero-responders-who-got-sick-eligible-for-compensation/>

Sept 10 – The 9/11 attacks happened 17 years ago, but many people are still suffering and dying from the aftermath.

Among those who have received or are deemed eligible for awards from the September 11th Victims Compensation Fund are more than 16,000 responders to the World Trade Center attack site in New York City. These are the people who performed rescue, recovery, demolition and debris cleanup in the aftermath, and included police, firefighters and FBI agents from the city and surrounding areas.

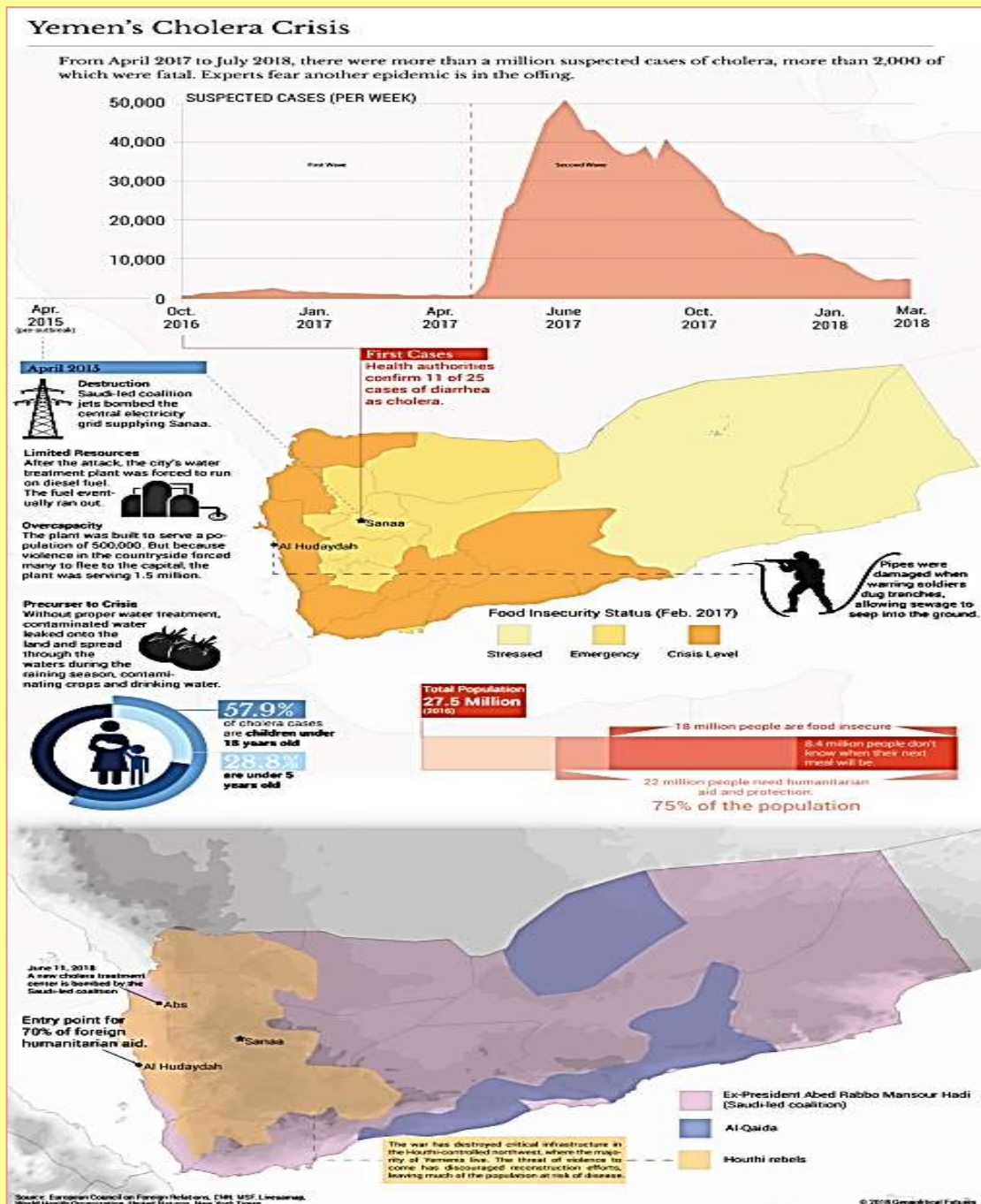


"To this day we're still losing officers each and every year from the effects of 9/11," NYPD Chief of Department Terence Monahan told ABC News in an interview.

EDITOR'S COMMENT: I only hope that all these first responders will not have the fate of war veterans struggling to survive in the streets forgotten by the system.

Yemen: War in the Time of Cholera

Source: <https://geopoliticalfutures.com/yemens-cholera-crisis/>



The fighting has discouraged reconstruction efforts, leaving much of the population at risk of disease (► magnify the page to read the details)

Biological terrorism: how vulnerable is the UK?

Video: <https://www.telegraph.co.uk/news/0/biological-terrorism-vulnerable-uk/>

Sept 17 – The naming of the Russian agents believed to be responsible for the Novichok poisonings in Salisbury has brought the spectre of chemical weapons to the forefront of the public consciousness once again.

But while such weapons can undoubtedly wreak enormous havoc, a Telegraph film investigating the threat of biological terrorism has shown that a far simpler way to spread fear and disrupt daily life would be to harness diseases in plants, animals and even humans.

Dominic Nicholls, defence and security correspondent, has spoken to a host of experts who reveal that bacteria such as anthrax, which occurs naturally in the soil and can infect cattle and wild animals, and foot and mouth disease could be a much bigger threat than chemical weapons.

In the film, which you can watch by clicking the link above, he talks to biosecurity experts and farmers to investigate the scale of the threat and how prepared the UK is to tackle it.

White Houses unveils new National Biodefense Strategy

Source: <http://www.homelandsecuritynewswire.com/dr20180919-white-houses-unveils-new-national-biodefense-strategy>

Sept 17 – The Trump administration on Tuesday released a new [National Biodefense Strategy](#), along with an order from President Donald Trump that directs the Department of Health and Human Services (HHS) to take the coordinating lead and establishes a cabinet-level biodefense steering committee.

Some experts are praising the broad scope of the strategy, new elements that it covers, and the high-level attention and oversight built into the plan.

Presidential directive builds in high-level support

In a statement Tuesday, Trump [said](#) that implementing the steps would promote a more efficient, coordinated, and accountable biodefense enterprise. “Taken together, they represent a new direction in the Nation’s defense against biological threats,” he said.

The new strategy, spelled out in a 36-page document, covers deliberate attacks, accidental releases, and naturally occurring biological threats and pivots off lessons learned during the 2001 anthrax attacks, the 2009 H1N1 flu pandemic, and West Africa’s 2014-16 Ebola outbreak.

Trump said biological threats come from many sources and know no borders. “They have great potential to disrupt the economy, exact a toll on human life, and tear at the very fabric of society,” he said. “My Administration will take steps to improve our understanding of the risks posed by biological threats and to respond to them effectively and efficiently.”

Steering committee, annual review

Robert Kadlec, HHS Assistant Secretary of Preparedness and Response (ASPR) today [fleshed out](#) more details about the presidential directive, saying leaders from every federal department involved in biodefense will be part of the cabinet-level steering committee and will be led by HHS Secretary Alex Azar. Azar has asked Kadlec to lead the day-to-day coordination team that supports the steering committee.

As part of the larger biodefense strategy, the coordination team will engage state, local, and territorial governments, along with private and international partners. Kadlec called the plan’s coordination of federal activities and budgets across a full range of biodefense sectors and activities “a monumental step forward.”

“Being truly successful will require a whole-of-nation approach with government agencies at all levels and non-government stakeholders playing important roles in providing support and guidance,” he said.



Trump in his presidential directive today also directs his national security advisor to annually review biological threats and prioritize biodefense actions, which he said will better enable the government to anticipate, prevent, prepare for, and respond to biological incidents.

Plan has 5 key goals

CIDRAP [reports](#) that the National Biodefense Strategy has five goals containing several objectives that reflect a layered risk management approach to countering biologic threats:

- Enabling risk awareness to guide decision-making across the biodefense enterprise at the strategic and operational levels, covering research, surveillance, and detection
- Ensuring biodefense capabilities to prevent biological incidents, which include minimizing the chances of lab accidents and stepping up actions to prevent hostile actors from obtaining or using biological material, equipment, or expertise, as well as recognizing the “dual use” nature of biotechnology
- Ensuring preparedness to reduce the impacts of biothreats, such as maintaining a vibrant science and technology base to support biodefense, ensuring a strong public health infrastructure, exercising response capabilities, developing and distributing medical countermeasures, and collaborating with international partners
- Responding rapidly to limit the impact of biological incidents, emphasizing the importance of information sharing, coordinated response and investigation, and effective public messaging
- Facilitating recovery after an incident, providing support, long-term mitigation, and steps to limit impacts on other parts of the world

“The risks from biological threats cannot be reduced to zero—but they can and must be managed,” the government said in the plan.

Expert impressed, but more details needed

Tom Inglesby, director of the Johns Hopkins Center for Health Security, said today that he was impressed by the scope of the effort. “It’s the first national strategy that encompasses natural, deliberate, and accidental biological threats, and that addresses threats to humans, animals, and plants.”

In the past, work in all of the areas covered by the goals was driven by different documents developed years apart in different presidential administrations, he said.

Another new element is that the national security advisor is the lead for the strategy, and Inglesby said the president’s national security priorities are more likely to get more attention and resources.

“The fact that it is published along with a Presidential Memorandum adds power to it all, including the direction that budgets will need to respond to this strategy,” he said.

Another good development is that the plan spells the day-to-day coordination and execution by the HHS secretary, which builds in top-level accountability and clearly assigned responsibility, according to Inglesby.

“But by same token it will be important and challenging to make sure that the many other agencies of government that need to be involved in preventing and preparing for biological threats stay engaged and bring their full capabilities to bear,” he said. For example, Inglesby notes that the Centers for Disease Control and Prevention, the National Institutes of Health, and the Food and Drug Administration are where the main HHS capabilities reside, but other agencies—including the departments of State and Defense, and the intelligence community—also play key roles.

“It would not be good if other agencies step back from the biodefense mission because they perceive their roles to be diminished,” he said.

The administration’s new strategy rightly recognizes biotechnology benefits while calling out the need to strengthen biosafety and biosecurity in the life sciences, including a call to promote global oversight of high-consequence research, such as that involving pandemic pathogens, Inglesby said.

“There is no real global dialogue, let alone oversight in most countries, around this realm of research now—having this set forth in the strategy hopefully will motivate real action internationally,” he said.

Inglesby said another encouraging element of the plan includes a commitment to working with other countries to strengthen the capacity to fight infectious diseases. “I would have



liked to see specific mention to the Global Health Security Agenda by name, but it is very heartening to see the international commitment to capacity building for epidemic response,” he said, noting that the release of a Global Health Security Strategy is expected next month, which might include more details about those activities.

Other notable and novel elements of the new plan include a stronger emphasis on risk assessment and the priority given to forecasting and modeling, Inglesby said.

“What is also new is the focus on secondary impacts and major disruptions to society, economy, and democracy itself—focusing on these major issues is important because these are the kinds of risks that can emerge in a severe pandemic,” he noted.

Inglesby said he’s hopeful that federal officials follow up with more details on how they will implement the new strategy, and he hopes, a planning document spelling it out will follow.

DHS Needs More Data to Help Stop Bioterrorism

Source: <https://www.nextgov.com/analytics-data/2018/09/dhs-needs-more-data-help-stop-bioterrorism/151397/>

Sept 19 – The Homeland Security Department wants a way to tap into nationwide medical databases to help detect and respond to “nationally significant” biological events.

The agency’s National Biosurveillance Integration Center on Thursday began looking for groups to provide nationwide information on medical interventions, food safety, wildlife health, travel itineraries and other health-related topics.

By plugging into that stream of data, NBIC could “improve its capability for biothreat awareness, detection, and information sharing to respond to incidents that may cascade into a nationally significant event,” officials wrote in a [request for information](#). Among those threats are bioterrorism attacks, disease outbreaks and environmental catastrophes.

NBIC acts as a hub where different Homeland Security components can plan and coordinate responses to biothreats. The center is responsible for collecting and analyzing biological data from across the country and alerting relevant groups when incidents have the potential for widespread damage.

As such, potential vendors must be able to provide both real-time and historical data on an array of topics that potentially factor into epidemics, bioattacks and other incidents. NBIC is only considering platforms that include national-level information and meet federal regulations for data privacy and confidentiality, according to the RFI.

This is not a drill: 5 reasons why the experts are worried about the next pandemic

By Ali Moore

Source: <http://www.homelandsecuritynewswire.com/dr20180920-this-is-not-a-drill-5-reasons-why-the-experts-are-worried-about-the-next-pandemic>

Sept 20 – Earlier this year, the World Health Organization (WHO) issued a [global alert for a disease that doesn’t exist yet](#). A potentially savage pathogen called Disease X.

“History tells us that it is likely the next big outbreak will be something we have not seen before,” says WHO committee science adviser John-Arne Rottingen.

By officially designating an unknown pathogen as a likely cause of a global outbreak, the WHO has upped the ante on the need to be better prepared.

While we may not know what ‘Disease X’ is, in all probability it’s coming. Conditions are ripe for its arrival. But are we ready? Here’s five reasons why we should answer that question carefully.

1. The number of diseases is increasing

In May of this year in a Washington ballroom, a novel parainfluenza virus was unleashed on the world. It spread rapidly from person to person through coughing, and killed 20 percent of those it infected. The first vaccine failed, and within a year 150 million were dead.



That was the [hypothetical scenario](#), run by the Johns Hopkins Center for Health Security, to pinpoint the challenges the US and the world would face in the event of a truly devastating outbreak. Their virus was manmade, a bio terrorist attack on the world.

Closer to home, the Doherty Institute in Melbourne [unleashed its own novel pathogen](#) that spread from a music festival in regional Victoria to the rest of the country.

Preparing for the worst possible scenario is high on many agendas around the world - spurred on by a widely held understanding that the next pandemic [is a case of when, not if](#).

Researchers have found both the number of outbreaks of infectious diseases and the types of diseases [have increased](#) in recent decades, with the number of outbreaks per year more than tripling since 1980.

And infections are easily spread in a world of rapid urbanization, warmer climates and persistent poverty. As well, the human race moves around a lot. With 4 billion passengers travelling by air last year alone, it's not hard for a virus to hitch a ride and become a global problem.

Certainly diagnostics and surveillance have improved dramatically. But with an ever expanding catalogue of diseases, keeping watch is a complicated task.

There's Ebola, SARS, Swine Flu and MERS ... or the Zika, Marburg, Nipah and Hendra viruses. Many of them are well established on the World Health Organization's [priority disease list](#).

Now the officially designated 'Disease X' has been added to that list for the first time, the reality of an unknown pathogen as the potential cause of the next pandemic has taken on a new urgency.

The more diseases out there, the higher the risk one will become a global killer.

2. One of the biggest threats is constantly reinventing itself

One hundred years after the [Spanish Flu](#) infected up to a third of the world's population, an unknown strain of influenza is widely seen as the most likely cause of the next pandemic. And for good reason.

The flu virus is constantly changing, which is why the seasonal flu vaccine has to be updated every year. It's that constant morphing that poses the biggest risk.

For example, two of the most concerning strains of avian influenza currently kill up to [60 per cent of the people](#) they infect. But what they can't do is spread easily from person to person, only from bird to person. If that changes, all bets are off.

The very fact influenza does shapeshift, means there's little incentive for drug companies to pour billions into researching and stockpiling vaccines. And so the hunt is on for a universal flu vaccine that would protect against most strains.

But, [according to the Institute for Disease Modelling](#), if a newly emerged airborne pathogen started in South East Asia today, nearly 33 million people would likely be dead in just six months.

3. We are prepared – but what does it mean?

Australia has a pandemic preparedness plan, the [Australian Health Management Plan for Pandemic Influenza](#), that runs to 232 pages.

It talks about the steps our health sector would consider taking in response to a pandemic, with a focus on flexibility. But it's necessarily vague, and focusses more on process than exactly what would happen in practice, with too many unknowns to lock down an action plan.

And there are so many questions.

A 'consistent communications strategy' is key, but how does that happen when every state and territory leader, hospital, local GP, even local council health center, will be called on for advice and counsel in the face of a pandemic emergency?

And what about decisions on when to close borders, shut schools, quarantine people and ration supplies? Or the vital question of who would get the first doses of a custom-made vaccine?

The plan simply notes that the "actual priority groups will need to be finalized in the light of the epidemiology of the pandemic virus". It's obvious that a plan on paper is exactly that until it's really tested.

4. How confident is your local GP?

Imagine there is a pandemic declared: who would you turn to for advice and care?



A hastily set up flu clinic where you could well end up in a waiting room with other sick people, a health minister from a political party you may or may not trust, or your local doctor?

GPs would be at the front line - and unless things work differently to how they unfolded during the most recent Australian pandemic of [Swine Flu in 2009](#), that could prove challenging.

Nine years ago, the north east of Melbourne was one of the hardest hit areas in Victoria. Local GP Dr Peter Eizenberg [wrote a scathing rundown](#) of his experience in the Medical Journal of Australia.

There were administrative burdens, laboratory test delays and a lack of clear communication. He says when the government changed its policy on Swine Flu, GPs were unsure whether to check websites or wait for faxes or letters from Chief Health Officers.

And his clinic received just a fraction of the personal protective equipment requested from the national stockpile, including just 40 per cent of goggles, six per cent of gloves and no masks.

Dr Eizenberg concludes: "It is only due to the low virulence of the virus that this pandemic has merely stressed our local service delivery and not completely paralyzed both our and the statewide response."

The government's pandemic plan referred to above, has been rewritten since 2009, to allow for a "flexible and scalable" response. But the role of GPs appears to be largely covered by references to "other health sector stakeholders", and not all GPs are confident the system will work better if it's really pushed to the limit.

Supply issues with this year's seasonal flu vaccine have not boosted confidence.

5. Australia has no national center for disease control

Australia is the only country in the OECD that doesn't have a national coordinating body responsible for communicable disease threats.

The US, the UK, Canada and the EU all have one. In our part of the world so does China, Cambodia, Japan, Thailand and Vietnam.

Nor are we among the 100 strong members of the [International Association of National Public Health Institutes](#), which is designed to link and strengthen government health authorities in member countries.

There's no question Australia does have a multiplicity of agencies and expert groups focused on infectious diseases, but as the Australian Medical Association puts it, "the current approach to disease threats, and control of infectious diseases, relies on disjointed State and Commonwealth formal structures, informal networks, collaborations, and the goodwill of public health and infectious disease physicians."

The call for an Australian CDC (the [US Centre for Disease Control and Prevention](#)) has been rejected by the government.

But advocates point to Canada's experience with SARS. It was hit hard by the disease, with more than 40 deaths and an official cost of close to a billion Canadian dollars. An official review found poor coordination and inconsistent policies because there was no central governing body. As a result, there's one now.

Many in the field hope it doesn't take an experience like that for Australia to follow suit.

Ali Moore is an Australian TV journalist and radio broadcaster.



Name your poison: Exotic toxins fell Kremlin foes

Source: <http://www.homelandsecuritynewswire.com/dr20180920-name-your-poison-exotic-toxins-fell-kremlin-foes>

Sept 20 – The suspected poisoning of anti-Kremlin activist Pyotr Verzilov in Moscow — just a few months after nerve-agent poisonings in Britain that led to one death and left three others severely ill — conjures up memories of other Kremlin foes who have fallen victim to toxic attacks in the Vladimir Putin era and previously.

Doctors in Berlin, where Russian-Canadian Verzilov was flown on September 15 after falling seriously ill days earlier, said it was "highly plausible" that he was poisoned.



A longtime opponent of Russian President Putin as a member of the punk protest band Pussy Riot and dissident art troupe Voina, Verzilov's doctors in Germany said on September 18 that something disrupted the nerves that regulate his internal organs.

Verzilov's case comes just months after former Russian double-agent Sergei Skripal and his daughter, Yulia, were found unconscious in a park in the English city of Salisbury.

A British public inquiry found that the Skripals had been poisoned with the deadly nerve agent Novichok and alleged that the attack was carried out by Russian state agents, later identified as two men traveling under the names Aleksandr Petrov and Ruslan Boshirov.

Less than four months later, Britons Charlie Rowley and Dawn Sturgess were taken to a hospital in Salisbury in critical condition and found to have also been poisoned by Novichok. Sturgess died on July 8. Skripal, a 67-year-old former Russian Army colonel, and his adult daughter eventually recovered after months of intensive hospital treatment.

Skripal was convicted in 2006 by a Russian court for "high treason in the form of espionage" on charges that he had given the names of Russian agents in Europe to Britain's MI6 intelligence agents during the 1990s.

The attack on the Skripals expanded the list of cases in which Kremlin opponents or critics have fallen ill from poisoning over the years, sometimes fatally, in circumstances that have raised suspicions of KGB-style assassinations.

While the Skripals were hospitalized, London police assistant commissioner Mark Rowley told BBC that authorities "have to be alive to the fact of state threats as illustrated by the [Aleksandr] Litvinenko case." Litvinenko, a former Russian state security service agent who defected to Britain and became a sharp critic of the Kremlin, fell seriously ill in November 2006 and died three weeks later. He was found to have been poisoned with radioactive polonium.

Here's a closer look at poisons thought to have been used in prominent cases of both international and domestic toxic attacks involving Russians.

Fentanyl and carfentanyl

Initial reports in British media said authorities suspected Skripal and his daughter were exposed to fentanyl, a synthetic opiate painkiller that is at least 50 times more powerful than morphine.

A related synthetic opioid, carfentanyl, is 100 times as potent as fentanyl and as much as 10,000 times as potent as morphine.

In addition to medical uses, and abuse as street drugs that often has deadly consequences, the chemicals have been weaponized as potentially lethal incapacitating agents.

Weaponized forms include guns that shoot felt pads soaked in the substances, paint-ball type projectiles, and an aerosol spray.

The chemicals can be ingested through skin contact or inhaled if they become airborne.

The U.S. Centers For Disease Control and Prevention (CDC) has warned that "first responder" emergency workers in cases of fentanyl and carfentanyl exposure can ingest the chemicals by touching the victim's skin.

Two police officers who initially responded to Skripal's case were treated and one remained hospitalized on March 6.

Moscow's 2002 theater hostage crisis

A report by British government scientists who tested clothing and urine samples from three survivors of the 2002 Moscow theater hostage crisis found that Russian special forces used carfentanyl to subdue Chechen separatists who were holding 800 people captive at the Dubrovka Theater.

The raid succeeded, but more than 120 hostages died from the effects of the chemical.

The same report noted that a Russian general who directed a military chemical institute had said that fentanyls were capable of delivering "a knock-out blow" to subjects within minutes.



Gelsemium – “heartbreak grass”

The most toxic source of Gelsemium poison is Gelsemium elegans, or “heartbreak grass,” a rare variety of a plant that only grows in Asia.

Lacing food with heartbreak grass is a known method of assassination by Russian and Chinese contract killers.

Aleksandr Perepilichny

A Russian oligarch and Kremlin critic who sought refuge in Britain in 2009, Aleksandr Perepilichny had been helping a Swiss investigation into a Russian money-laundering scheme by providing evidence against allegedly corrupt officials in Moscow. He also provided evidence against Russian officials linked to the 2009 death of anticorruption lawyer Sergei Magnitsky in a Moscow jail.

Shortly before he collapsed and died in November 2012 at the age of 44 while jogging outside his home in Surrey, Perepilichny told his colleagues that he had received death threats.

Although he was the fourth person linked to the Magnitsky case to die in strange circumstances, police in Surrey initially ruled that his death was not suspicious.

But on May 18, British authorities reopened an investigation into his 2012 death after new tests discovered traces in his stomach that could only come from the highly toxic Gelsemium plant.

The Surrey coroner’s court was told the toxicology report raised “serious concerns” that Perepilichny may have been assassinated for helping expose a powerful Russian fraud syndicate.

The court also heard there was “historical animosity” between Perepilichny and Dmitry Kovtun, one of two Russians found in January 2016 by a British inquiry to have poisoned Litvinenko in London in 2006.

Polonium-210

Polonium is a rare and highly radioactive element that occurs in uranium ores. Polonium-210 is about 250,000 times more toxic than hydrogen cyanide, which is itself an extremely poisonous liquid that can kill quickly in a concentrated dose.

Aleksandr Litvinenko

A former officer of Russia’s FSB security service, Litvinenko fled to London with his family in 2000 and was granted political asylum.

Litvinenko was poisoned in a London sushi bar in November 2006 and an autopsy revealed traces of polonium-210 in his body. British experts said he probably was the first person ever to die of the acute radiation effects of polonium-210.

A British inquiry in January 2016 concluded there was “strong circumstantial evidence of Russian state responsibility” and that Russian President Vladimir Putin and his spy chief at the time, Nikolai Patrushev, “probably approved” Litvinenko’s poisoning.

The inquiry, led by a retired British judge, Sir Robert Owen, also concluded that a former KGB agent and ex-Kremlin bodyguard, Andrei Lugovoi, carried out the assassination along with Dmitry Kovtun by placing polonium-210 in a teapot that was served to Litvinenko at a London restaurant. Before he died, Litvinenko wrote a letter accusing Putin of ordering his death. He had earlier accused the FSB of staging apartment-building bombings and other false-flag attacks in Russia in a bid to bring Putin into power — claims Russian authorities have denied.

Litvinenko had also accused Putin of ordering the killing of Russian investigative journalist Anna Politkovskaya, a Kremlin critic who was fatally shot less than two months before his own death.

Thallium

Thallium is a chemical element that is found in potassium-based ores, but also is a byproduct from refining heavy metal sulfide ores. Small, nontoxic amounts of the radioisotope thallium-201 are used in nuclear medicine scans.

Thallium salts are highly toxic and have been used in rat poisons and insecticides. Thallium poisoning results in hair loss. Because of its use as a murder weapon, it is sometimes referred to as the “poisoner’s poison.”

Nikolai Khokhlov

Nikolai Khokhlov was a Soviet KGB agent who defected to the United States in 1953 and testified about KGB operations. Khokhlov was treated for thallium poisoning in



Frankfurt, Germany, in 1957 after a failed assassination attempt by the KGB — possibly the first radiological attack by KGB agents.

Former KGB officers have claimed that Khokhlov was poisoned by radioactive polonium, exactly as Litvinenko was in 2004, rather than thallium.

Litvinenko's poisoning by polonium-210 initially was misdiagnosed as thallium poisoning.

Yury Shchekochikhin

A Russian investigative journalist and lawmaker, Yury Shchekochikhin campaigned against corruption and the influence of organized crime in Russia.

Shchekochikhin died in July 2003 — just days before he planned to meet FBI investigators in the United States — after suffering from a mysterious illness and displaying symptoms of a severe allergic reaction.

Russian authorities declared that he died from Lyell's syndrome, but his medical treatment and autopsy records remain under the control of the FSB.

Some researchers say the symptoms of Shchekochikhin's illness were similar to the radioactive poisoning symptoms of Khokhlov and Litvinenko.

Tetrachlorodibenzodioxin (TCDD) – “dioxin”

TCDD — commonly, though inaccurately, referred to as dioxin — is a colorless, odorless solid compound at room temperature. It is the main contaminant in Agent Orange, the defoliation substance that was used by the U.S. military in the Vietnam War. TCDD has been classified as a carcinogen for humans by the International Agency for Research on Cancer.

Viktor Yushchenko

A Ukrainian politician, Viktor Yushchenko was poisoned with hazardous amounts of TCDD in late 2004 while running for president against Russian-favored candidate Viktor Yanukovych.

Tests at the time showed he had the second-highest concentration of TCDD ever measured in a human.

As a result, his face was disfigured for many years by chloracne, but he has been slowly recovering.

Yushchenko, who favored European integration and Ukrainian membership in NATO, said that his poisoning “was not a private act” and accused Russian officials of hindering an investigation into who was responsible for poisoning him.

Official election results declaring Yanukovych as the winner of the vote led to the Orange Revolution protests. The Supreme Court ruled that there had been widespread fraud in Yanukovych's favor and ordered a new vote, which Yushchenko won.

Sarin and other nerve agents

Sarin is a colorless, odorless liquid nerve agent that causes death by asphyxia because victims are unable to control the muscles involved in breathing. It is most dangerous when it is inhaled. The liquid easily turns into a gas and vapor concentrations can also penetrate the skin. Sarin has been classified by the United Nations as a weapon of mass destruction. The stockpiling of sarin is outlawed under the Chemical Weapons Convention.

Ibn al-Khattab

The FSB has said that its operatives killed Ibn al-Khattab, a Saudi-born militant who fought alongside Chechen militants in Russia's North Caucasus during the 1990s and early 2000s. He died in 2002.

Khattab's relatives and other Chechen sources say he was poisoned after handling a letter that had been laced with a “fast-acting nerve agent, possibly sarin or a derivative.”

Russian press reports say the letter was delivered by a Daghestani double agent who was paid by the FSB.

Microengineered ricin pellets

The Soviet Union possessed a weaponized version of ricin poison during the Cold War, when the KGB was suspected in assassination attempts against at least three well-known Warsaw Pact defectors.



Ricin is produced naturally within the seeds of the plant *Ricinus communis*, which are crushed to produce castor oil.

The pulp from eight crushed seeds is considered a dangerous dose for adults. But deaths from eating castor plant seeds are rare because of the seed's indigestible shell and because the human body can digest the toxin.

Ricin is most toxic when it is inhaled, injected, or otherwise ingested into the bloodstream.

In the form of purified powder, a dose the size of a few grains of table salt is strong enough to kill an adult.

Georgi Markov

The most infamous case is the so-called umbrella assassination of Bulgarian dissident journalist Georgi Markov in London in September 1978. Markov, who worked for the BBC and Radio Free Europe, died four days after a microengineered pellet containing the poison ricin was injected into his leg. British investigators suspect the pellet was fired by an assassin who used a device hidden in the tip of an umbrella while Markov was catching a bus on London's Waterloo Bridge.

Vladimir Kostov

A similar assassination attempt had been made 10 days earlier against another Bulgarian defector who worked for Radio Free Europe, Vladimir Kostov. Kostov was shot in the back with the same type of ricin-laced pellet while walking in a Paris metro station in August 1978, but he only ingested a small portion of the ricin in his blood and survived.

Boris Korczak

In August 1981, an exposed CIA double agent, Boris Korczak, was struck in his kidney by a similar ricin pellet fired from an air gun while he was shopping for food in Virginia. Korczak also survived the attack and was convinced the KGB was responsible.

Unidentified poisons

Hafizullah Amin

Hafizullah Amin was an Afghan politician during the Cold War who served as president for three months in 1979 after ordering the assassination of his pro-Soviet predecessor, Nur Muhammad Taraki.

Soviet officials alleged that Amin was an agent of the CIA.

A KGB agent who infiltrated the presidential palace and became the chef attempted to poison Amin on December 13, 1979. But Amin suspected he was being poisoned and switched his food and drink with his son-in-law — who became ill and was sent to a hospital in Moscow.

Two weeks later, Amin was assassinated by Soviet forces who stormed Kabul's Tajbeg Palace. The Soviet Union then installed Babrak Karmal as Afghan president.

Anna Politkovskaya

Russian investigative journalist, human rights activist, and Kremlin critic Politkovskaya fell violently ill in September 2004 after drinking tea on an Aeroflot flight from Moscow to southern Russia during the Beslan school-hostage crisis.

Politkovskaya believed she was poisoned by the FSB, and media reports said her attackers used an unknown toxin prepared at a former Soviet secret-police poison facility.

Politkovskaya survived, but she was shot dead two years later in the elevator of her Moscow apartment building.

BIOLOGICAL SELECT AGENTS AND TOXINS:

Actions Needed to Improve Management of DOD's Biosafety and Biosecurity Program

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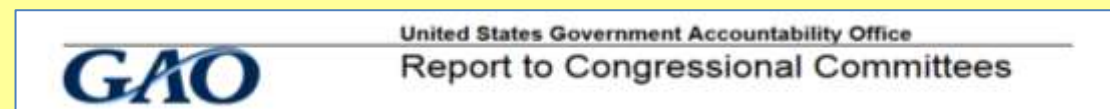
What GAO Found

The Department of Defense (DOD) has made progress by taking a number of actions to address the 35 recommendations from the Army's 2015 investigation report on the inadvertent shipments of live *Bacillus anthracis* (anthrax). However, DOD has not yet developed an approach to measure the effectiveness of these actions. As of March 2018,



DOD reports 18 recommendations as having been implemented and 17 as having actions under way to implement them. These actions are part of a broader effort to improve biosafety, biosecurity, and overall program management. For example, in March 2016, DOD established the Biological Select Agents and Toxins (BSAT) Biorisk Program Office to assist in overseeing the BSAT Biosafety and Biosecurity Program and implementation of the recommendations. Measuring the effectiveness of each implemented recommendation would help better determine if the actions taken are working, if there are unintended consequences, or if further action is necessary.

The Secretary of the Army, as DOD's Executive Agent, has implemented a BSAT Biosafety and Biosecurity Program to improve management, coordination, safety, and quality assurance for the DOD BSAT enterprise. However, DOD has not developed a strategy and implementation plan for managing the program. Without a strategy and implementation plan, Dugway Proving Ground, Utah, and DOD's laboratory facilities that currently produce and handle BSAT may be unclear about DOD's strategy to harmonize BSAT operations to ensure safety, security, and standardization of procedures throughout DOD's BSAT enterprise.



The Army has not fully institutionalized measures to ensure that its biological test and evaluation (T&E) mission remains independent from its biological research and development (R&D) mission so that its T&E procedures are objective and reliable. In April 2016, the Army directed the transfer of the operational T&E mission from West Desert Test Center-Life Sciences Division at Dugway Proving Ground, Utah, to Edgewood Chemical Biological Center, Maryland. The Army issued a memorandum of agreement between the two entities to lay out roles and responsibilities for test processes and procedures. However, the memorandum does not distinguish T&E from R&D mission requirements, and does not contain guidelines to mitigate risks associated with potential conflicts of interest between the R&D and T&E missions. Without these measures, there is a potential risk to the independence of the T&E mission.

The National Defense Authorization Act (NDAA) for Fiscal Year 2017 required DOD to report by February 1, 2017, on the feasibility of consolidating BSAT facilities within a unified command, partnering with industry for the production of BSAT in lieu of maintaining such capabilities within the Army, and whether such operations should be transferred to another government or commercial laboratory. DOD has not completed this required study and evaluation of its BSAT infrastructure which, when complete, will affect the future infrastructure of the BSAT Biosafety and Biosecurity Program. Further, DOD officials have no estimated time frames for when DOD will complete the study and evaluation. Without time frames for completing the study and evaluation, DOD is unable to provide decision makers with key information on its infrastructure requirements.

Why GAO Did This Study

In May 2015, DOD discovered that one of its laboratories (formerly called the Life Sciences Division) at Dugway Proving Ground, Utah, had inadvertently made 575 shipments of live *Bacillus anthracis*—the bacterium that causes anthrax—to 194 laboratories and contractors worldwide from 2004 through 2015. A December 2015 investigation by the Army determined that there was insufficient evidence to establish a single point of failure and made recommendations for improving safety and security at DOD laboratories that handle BSAT.

The NDAA for Fiscal Year 2017 included a provision for GAO to review DOD's actions to address the Army's recommendations. GAO assessed the extent to which (1) DOD has implemented recommendations from the Army's 2015 investigation report, (2) the Army has implemented the BSAT Biosafety and Biosecurity Program and developed a strategy and implementation plan, (3) the Army's biological T&E mission is independent from its biological R&D mission, and (4) DOD has carried out a required study and evaluation. GAO reviewed DOD documents and key actions in response to the Army's recommendations and conducted site visits to DOD's BSAT laboratories.



What GAO Recommends

GAO recommends that DOD develop an approach to assess the effectiveness of the recommendations, a strategy and implementation plan for its BSAT Biosafety and Biosecurity Program, measures to ensure independence, and time frames to complete a study. DOD concurred with all four of GAO's recommendations.

U.S. and Poland Host Agro-Terrorism and Bioterrorism Seminar

Source: <https://pl.usembassy.gov/bioterrorism/>

U.S. Embassy Warsaw Charge d'Affairs Eric Green and Ministry of Agriculture and Rural Development Undersecretary of State Rafał Romanowski welcomed officials from eight countries to a two-day (September 19-20) seminar on agro-terrorism and bioterrorism in Warsaw. The seminar is a bilateral effort by the U.S. Federal Bureau of Investigation, U.S. Department of Agriculture and Polish Ministry of Agriculture and Rural Development. Participants include animal and plant health authorities, national and local food safety officials, first responders, and law enforcement officers from throughout the region. This is the first time this course has been offered outside of the United States. **The participating countries included Bulgaria, Czech Republic, Estonia, Latvia, Lithuania, Poland, Slovakia and the United States.**

