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EDITOR'S CORNER



**Editorial****Brig Gen (ret'd) Ioannis Galatas, MD, MA, MC***Editor-in-Chief*
CBRNE-Terrorism Newsletter*Dear Colleagues,*

April – an interesting month!

An assassination with a nerve agent and release of chemical weapons in Syria (once more). But both cases are not clear cut and both trigger disproportional international reactions to the point to think that they were part of global destabilization plan (for no apparent reason apart the usual power control games that strong nations love to play because they think that they are only “games”).

The British failed to present solid proof that it was novichok and it was Russian. So many questions and doubts about the exact composition, the mode of dispersion, persistence and volatility of the agent, effect on pets that either died or euthanasized etc.

The US-UK-France coalition failed to present solid proof and field evidence that chemical weapons (sarin? Chlorine?), were released in Douma, Syria justifying the (not so successful) cruise missile attacks that followed or might follow in the near future. The Iraq CWAs joke never became a lesson learned mainly because mighty powers do not care about the consequences of their actions. On top of that Turkey is behaving like a might power but is not. Just a nation causing troubles in Syria, in the Aegean Sea, in Iraq, in Albania, in FYROM, in Kurdistan all the way to Qatar. Bullying is easy but there is always someone stronger that will restore equilibrium and teach some lessons.

Take care first responders and remember that Greece is an excellent destination for your summer vacations!

The Editor-in-Chief

PS: And as always, the day about to upload the Newsletter, a new van terrorist attack in Toronto, Canada...



Santorini Island, Greece



Drone Almost Sucked Into Jet Engine As Passenger Plane Comes in to Land

Source: <http://www.newsweek.com/drone-17-feet-being-sucked-passenger-jet-engines-dramatic-near-miss-861255>

Mar 27 – An Air New Zealand flight carrying 278 passengers came within 17 feet of hitting a hobby drone which was so close to the plane that the pilots thought it had been sucked into an engine.



The NZ92 flight from Tokyo was landing at Auckland airport in [New Zealand](#) when its pilots spotted the drone, the [New Zealand Herald](#) reported.

Air New Zealand issued a [statement](#) following the near miss, in which Chief Operations Integrity and Standards Officer

Captain David Morgan, said: “NZ92 was just meters away from a serious incident on Sunday. The pilots spotted the drone at a point in the descent where it was not possible to take evasive action. It passed so close to the incoming aircraft that they were concerned it may have been ingested into the engine.”

After landing, an inspection of the [Boeing](#) 777-200 airplane found that the drone had not been sucked into the engine. It is not yet clear who was controlling the drone.



This file photo shows a drone flying at an airport near Toulouse, France, on October 19, 2017. Air New Zealand has called for harsher penalties for drone operation in restricted airspace, for example above airports. PASCAL PAVANI/AFP/Getty Images

New Zealand’s [current rules](#) state that drones must be kept at least 2.4 miles from any airdrome—a location from which aircraft flight operations take place. Anyone breaching these rules can be fined up to NZ\$5,000 (\$3,600).

Morgan does not believe this goes far enough. “It’s clear the time has now come for tougher deterrents for reckless drone use around airports to safeguard travellers, including imposing prison terms in the case of life-threatening incidents.”



Air New Zealand's statement noted that this is the second case of reckless drone use at [Auckland airport](#) this month. On March 6, all flight operations were halted for 30 minutes after an Air New Zealand pilot reported a drone flying within the airport's controlled airspace.

Morgan said the airline was committed to "tougher and more consistent penalties" for dangerous [personal drone](#) use.

Airways, New Zealand's air traffic control organization, released its own [statement](#) noting concern over the "increasing number of drone sightings in controlled airspace." CEO Graeme Sumner said Airways has received reports of at least one drone per week operating illegally in controlled airspace over the past year.

"Air traffic control technology is currently unable to detect small objects such as drones," Sumner explained, "so we rely on drone operators to follow the rules and register with us before they fly to ensure all aircraft are integrated safely into our airspace."

Only 4 percent of drone-related complaints to New Zealand's Civil Aviation Authority resulted in disciplinary action over the past five years, the *Herald* reported. A total of 696 such complaints have been made since March 2013, with 27 resulting in legal action.

Active shooter drills may reshape how a generation of students views school

By Devon Magliozzi

Source: <http://www.homelandsecuritynewswire.com/dr20180329-active-shooter-drills-may-reshape-how-a-generation-of-students-views-school>



Mar 29 – Recent school shootings and the March for Our Lives rallies held in cities around the world on March 24 have rekindled debates over how to keep students safe.

"The notion of 'it can't happen here' is no longer a notion," said Sheriff Tim Cameron of St. Mary's County, Maryland after a student opened fire on March 20 at Great Mills High School, killing one student and injuring another.

Increasingly, schools are turning to active shooter drills and videos to prepare students and staff to face a gunman. As a sociologist who studies the social impacts of security strategies, I am concerned about the unintended ethical and political consequences of these exercises.

All students deserve safe learning environments. Yet training kids to take responsibility for their own survival while treating gun violence as inevitable may make schools – even those that are never the site of a shooting – feel unsafe. Effects like this need to be weighed against the potential benefits of active shooter training to ensure that measures to protect students do not cause unintended harm.

Ethical dilemmas of "run, hide, fight"

By 2013, over [two-thirds of public schools](#) in the U.S. used [lockdown drills](#) to prepare for an active shooter. In these exercises, students huddle in classrooms to practice waiting for help from police and SWAT teams.

School shootings continued unabated, however, so the Department of Education began to encourage students and teachers to plan a more active response. Rather than huddle and wait, students and teachers [are now told to](#) "run, hide, fight."

Lockdown and "run, hide, fight" active shooter drills are designed to habituate students and staff to an active shooter situation. However, some schools have faced criticism for using

overly realistic simulations. For example, when officers armed with rifles burst into a Florida school for an [unannounced drill](#), parents were outraged.

Training materials designed for teachers, like a [computer simulation](#) produced by the Department of Homeland Security, may partially shield children from seeing scary scenarios. However, even when schools focus their trainings on teachers, drills remind students of the possibility that they will face a shooter. A [video](#) created by the Santa Ana Unified School District tells teachers to develop a "run, hide, fight" plan and urges them, "Communicate these plans to



students. Rehearse, practice, and drill each plan on a regular basis.”

By having students practice responding to a pretend emergency, school administrators hope they will respond the same way to a real one. However, training exercises that instill fear may have negative effects on students. [Research shows](#) that exposure to neighborhood violence alters kids’ cognitive performance, affecting how quickly and accurately they respond to cues on a computer screen. If simulated or anticipated violence has similar impacts on kids’ cognition, it could impact their classroom performance.

In addition, moral lessons are hidden within the “run, hide, fight” model. Training videos built on this model are full of underlying messages about the right thing to do during a shooting.

Run: “Encourage others to leave with you, but don’t let them slow you down,” says a [training video](#) promoted by the Department of Homeland Security for schools and workplaces.

Hide: In a [video](#) published by the Oregon Trail School District, a teacher explains, “We’re gonna push some stuff against the door. That’s called a barricade. We’re gonna barricade the door so nobody can get in.”

Fight: A [training video](#) produced by Stanford University advises, “Fire extinguishers are great as weapons and as a chemical spray. Coffee cups, laptops, books – anything you can do to increase your odds of survival is a good tactic.” Students and teachers are led to reimagine their learning environment as they rehearse the “run, hide, fight” strategy. To plan escape routes, they must picture classrooms and hallways as potential crime scenes. To prioritize their own survival, they must close the door to the shooter and the injured, putting to rest [moral questions](#) about leaving others to die. They must do away with the ideal that schools are weapon-free zones and spot classroom objects to wield in battle.

Social stakes of shooter drills

Social scientists know that the strategies people use to protect themselves shape their social lives, regardless of whether they work. [Carrying a gun](#) for protection, for example, bears on a person’s identity, political views and social ties even if they never use it. Women who take [self-defense classes](#) likewise report feeling newly empowered afterwards, even if they have never been threatened.

While the “run, hide, fight” response is modeled on strategies law enforcement teams have used effectively, there is [little evidence](#) as to whether or not it will work to minimize harm in school shootings. In the recent [Parkland, Florida](#) shooting, it seems the shooter designed his attack with the school’s emergency drills in mind.

Whether or not active shooter training works, however, it is likely to shape the way students and teachers think and act at school and beyond. Schools play a large role in the [formation of political views](#). When kids learn to plan for school shootings the same way they plan for fires, earthquakes and tornadoes – inevitable events beyond their control – how will it affect how they vote, organize or lead in the future?

Will it impact their trust in public schools, police, the government or each other?

Nobody wants to feel powerless in the face of an attacker, and one casualty from a school shooting is too many. Parents, educators and students naturally seek to do everything possible to limit the harm these tragedies cause. Yet, active shooter training strategies have consequences that communities need to consider. Knowledge is power, but maybe books shouldn’t be weapons. I argue that the hidden lessons of active shooter training need to be openly debated before they are unintentionally ingrained in an entire generation of students.

Devon Magliozzi is Ph.D. Candidate in Sociology, Stanford University.

The Sultan’s Pleasure: Turkey Expands its Operations in Syria and Iraq

By Jonathan Spyer

Source: <https://www.meforum.org/articles/2018/the-sultan%E2%80%99s-pleasure-turkey-expands-its-operatio>



Mar 30 – Turkish forces this month entered Afrin City, bringing Operation “Olive Branch,” launched on January 20, to a successful conclusion. Latest reports suggest that the Turks are now set to seek to enter the neighboring Kurdish-controlled town of Tal Rifaat, after reaching an agreement with the Russians allowing them to contest its control.

According to the pro-opposition Syrian Observatory for Human Rights, 78 Turkish soldiers were killed in the Afrin fighting, along with 437 Turkey-aligned Syrian Sunni rebels. SOHR puts Kurdish casualties as 1,500 killed in the operation.

All indications suggest that for Turkey, the recent battles were only a phase in a larger process. So where might Turkey turn next? And what is the goal of the Turkish campaign?

Turkish President Recep Tayyip Erdogan said, following the fall of Afrin, that “we marked a comma. God willing, a full stop will come next.... Now we will continue this process, until we entirely eliminate this corridor, including in Manbij, Ayn al-Arab [Kobani], Tel-Abyad, Ras al-Ayn (Sere Kaniyeh) and Qamishli.”

These are the main towns of the Kurdish-controlled area further east. A Turkish push toward them would mean a comprehensive attempt to destroy the Kurdish autonomous zone that has been in existence east of the Euphrates since the withdrawal of Assad’s forces from the area in July 2012.

It would also mean the near certain prospect of a collision between Turkish and US forces. Officially, there are 2,000 US military personnel in the area. The real number is probably considerably larger, perhaps twice this figure. The US maintains a number of facilities east of the Euphrates. These are held in cooperation with the Syrian Democratic Forces, which is the US partner in the war against Islamic State, but which would also form the main element resisting a Turkish push eastward.

The town of Manbij is currently the main issue of contention. West of the Euphrates and with a mixed Arab and Kurdish population, it is nevertheless currently controlled jointly by the SDF and the Americans. Turkey has made clear that it intends to remove its Kurdish opponents from the town.

Given the extreme risks inherent in any such drive eastward, however, it appears more likely that Turkey will satisfy its immediate appetites for further strikes at its enemies elsewhere.

Despite Erdogan’s grammatical metaphors, the taking of Afrin did represent a kind of “full stop” for the Turks. It completed the acquisition by Ankara of a sizable, contiguous enclave in northwest Syria. The Afrin canton was a “missing piece” separating two areas of de facto Turkish control.

In Operation “Euphrates Shield” in late 2016, the Turks carved out an area of control between the towns of Azaz and Jarabulus along the Syrian-Turkish border.

Meanwhile, Turkish forces also entered northern Idlib province, which remains under the control of Sunni Islamist rebels.

The destruction of Afrin joins these two areas, giving Turkey a contiguous area of control, from Jarabulus to northern Idlib. The Turks have made clear they have no intention of handing these areas over to the Assad regime. So Ankara now has its own little bit of fragmented Syria, alongside the various enclaves of other powers.

This is of importance to Erdogan. He will be able to present himself as the champion of the Sunni Arab population of Syria, and the guarantor of the remnants of its rebellion against the Assad regime.

As the earliest and most consistent supporter of the Syrian Sunni rebellion, the Turkish leader stood to appear humiliated by the final eclipse of their cause. The Russians, by permitting the Turks and their rebel foot soldiers to enter Afrin, have allowed Erdogan to salvage some dignity from his situation. In affording him this concession (against the will of the Assad regime), Moscow has served its broader goal of drawing the Turks further away from their already severely eroded alliance with the West. With their northwest Syrian enclave largely secured, and the area further east dangerous to approach, because of the American presence, there are indications that the Turks are looking further afield for further victories against the Kurds.



Turkish aircraft have in recent days been in action over the skies of northern Iraq, bombing what Ankara claims to be a presence of PKK guerrillas in the Qasr-e area of Erbil province. The Turkish military is presently engaged 15 km. across the border into the Kurdish Regional Government area, in the Sidakan area in northern Iraq.

Erdogan has threatened in recent days to carry out a military operation against PKK guerrillas located in the Sinjar Mountain area of northern Iraq. The fighters of this Kurdish organization have been in this area since the summer of 2014, when they opened a corridor to rescue Yazidi civilians trapped on the mountain by the advance of ISIS.

The PKK has announced its willingness to leave Sinjar and has begun to hand security facilities over to the local Yazidi YBS forces. Given the links between these forces and the PKK, however, it is not yet clear if this will be sufficient to prevent a Turkish incursion into the area.

There are those among the Iraqi Kurds who fear that these activities may presage a more general Turkish attempt to comprehensively root out and destroy Ankara's PKK enemies in northern Iraq.

A larger-scale Turkish assault into Dohuk and Nineveh provinces to carve out an enclave between the Kurdish areas in Iraq and Syria is not an impossibility. But it would be carried out against the wishes of the US, Iran, and the government of Iraq, and may be too large a morsel for Turkey to attempt at the present time.

Nevertheless, the lower-level attacks on Kurdish targets in Iraq look set to continue and intensify. Meanwhile, inside the area of Kurdish control in eastern Syria, a mysterious organization called Harakat al-Qiyam has carried out a number of attacks on individuals linked to the Kurdish-led authorities in recent months. Many observers calculate that this group may be backed by the Turks, constituting an irregular accompaniment to overt military action further east and west.

IN ALL three areas – the Afrin operation, the (alleged) links to Harakat al-Qiyam and the air activity and threatened incursion into Sinjar and northern Iraq – the contours and direction of Turkish activity are clear. Ankara has set as a strategic goal to destroy the Kurdish gains that resulted from the fragmentation of Syria and Iraq over the last half decade. Turkey also wishes to present itself as the natural leader and patron of Sunni Arab communities in both countries.

In asserting these goals, Ankara will partner with or oppose other local powers (Iran, the government of Iraq, the Assad regime), according to immediate tactical needs. Similarly, Turkey is likely to tread carefully around the larger powers, whose will it cannot oppose (the US, Russia), seeking to draw neither too close nor too far away from either.

After the capture of Mosul from ISIS, speaking of Turkey's activities in Iraq, Erdogan said, "We cannot draw boundaries to our heart, nor do we allow that." The surrounding territories and populations in the nominal states of Syria and Iraq appear set to receive the full and heartfelt attention of Turkey, to the sound of revived Ottoman marching tunes – whether they like it or not.

Jonathan Spyer is a fellow at the Middle East Forum

Could Enemies Target Undersea Cables That Link the World?

Source: <https://www.voanews.com/a/could-enemies-target-undersea-cables-that-link-the-world/4324682.html>

Mar 30 – Russian ships are skulking around underwater communications cables, causing the U.S. and its allies to worry the Kremlin might be taking information warfare to new depths.

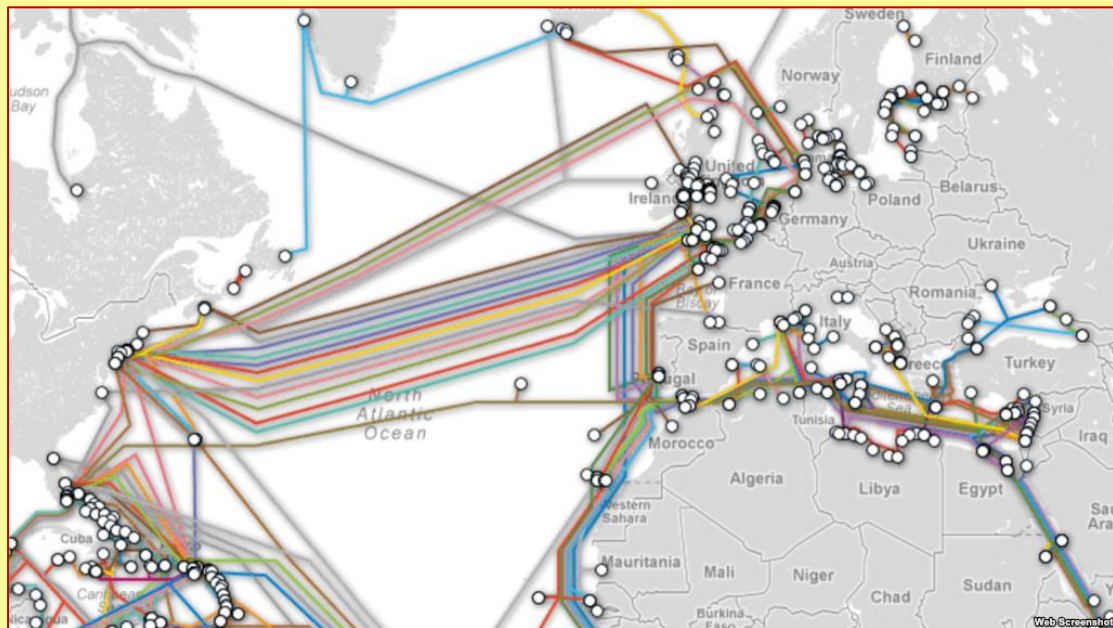
Is Moscow interested in cutting or tapping the cables? Does it want the West to worry it might? Is there a more innocent explanation? Unsurprisingly, Russia isn't saying.

But whatever Moscow's intentions, U.S. and Western officials are increasingly troubled by their rival's interest in the 400 fiber-optic cables that carry most of world's calls, emails and texts, as well as \$10 trillion worth of daily financial transactions.

"We've seen activity in the Russian navy, and particularly undersea in their submarine activity, that we haven't seen since the '80s," General Curtis Scaparrotti, commander of the U.S. European Command, told Congress this month.

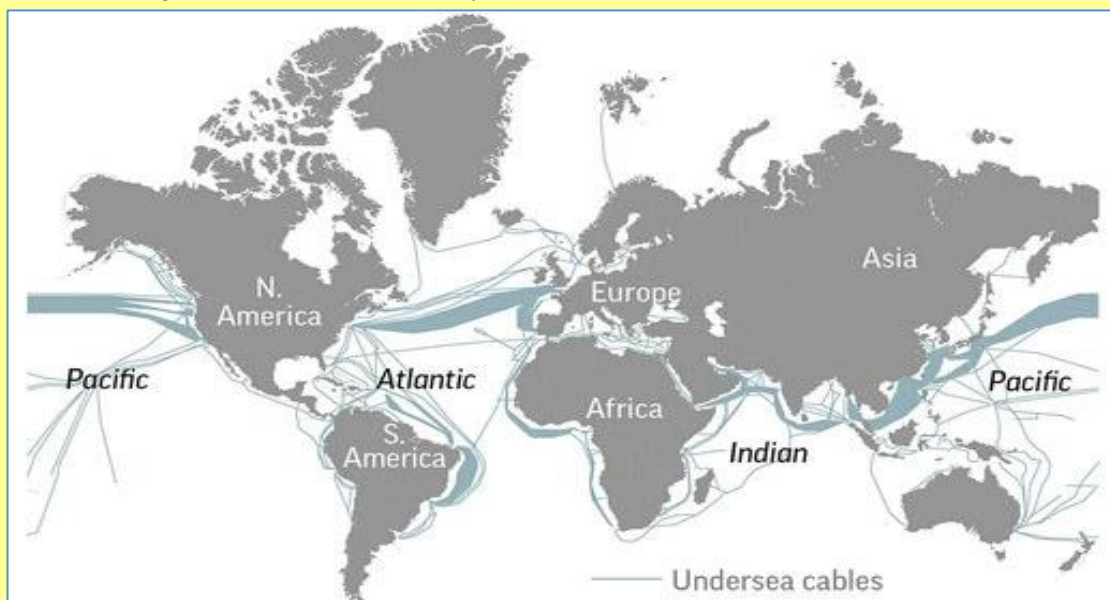


Without undersea cables, a bank in Asian countries couldn't send money to Saudi Arabia to pay for oil. U.S. military leaders would struggle to communicate with troops fighting extremists in Afghanistan and the Middle East. A student in Europe wouldn't be able to Skype his parents in the United States.



Small passageways

All this information is transmitted along tiny glass fibers encased in undersea cables that, in some cases, are little bigger than a garden hose. All told, there are 620,000 miles of fiber-optic cable running under the sea, enough to loop around Earth nearly 25 times.



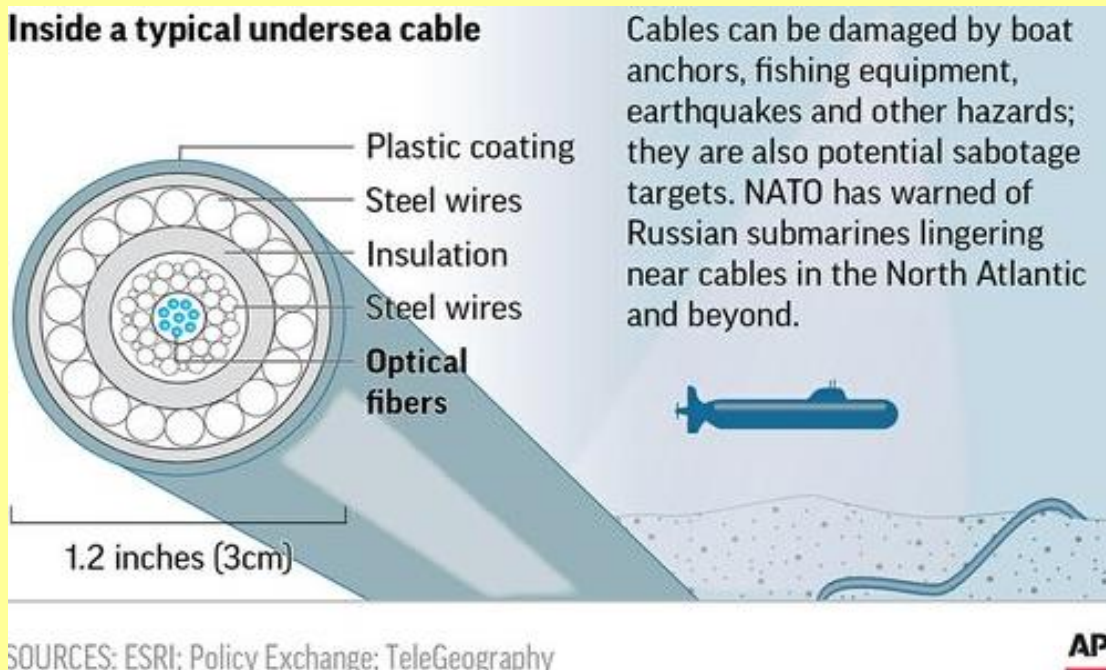
Most lines are owned by private telecommunications companies, including giants like Google and Microsoft. Their locations are easily identified on public maps, with swirling lines that look like spaghetti. While cutting one cable might have limited impact, severing several simultaneously or at choke points could cause a major outage.



The Russians "are doing their homework and, in the event of a crisis or conflict with them, they might do rotten things to us," said Michael Kofman, a Russian military expert at nonprofit research group CNA Corp.

It's not Moscow's warships and submarines that are making NATO and U.S. officials uneasy. It's Russia's Main Directorate of Deep Sea Research, whose specialized surface ships, submarines, underwater drones and minisubs conduct reconnaissance, underwater salvage and other work.

One ship run by the directorate is the Yantar. It's a modest, 354-foot oceanographic vessel that holds a crew of about 60. It most recently was off South America's coast helping Argentina search for a lost submarine.



Parlamentskaya Gazeta, the Russian parliament's publication, last October said the Yantar has equipment "designed for deep-sea tracking" and "connecting to top-secret communication cables." The publication said that in September 2015, the Yantar was near Kings Bay, Georgia, home to a U.S. submarine base, "collecting information about the equipment on American submarines, including underwater sensors and the unified [U.S. military] information network." Rossiya, a Russian state TV network, has said the Yantar not only can connect to top-secret cables but also can cut them and "jam underwater sensors with a special system."

Russia's Defense Ministry did not respond to a request for comment.

Preparing for sabotage

There is no hard evidence that the ship is engaged in nefarious activity, said Steffan Watkins, an information technology security consultant in Canada tracking the ship. But he wonders what the ship is doing when it's stopped over critical cables or when its Automatic Identification System tracking transponder isn't on.

Of the Yantar's crew, he said: "I don't think these are the actual guys who are doing any sabotage. I think they're laying the groundwork for future operations."

Members of Congress are wondering, too.

Representative Joe Courtney, a Connecticut Democrat on a House subcommittee on sea power, said of the Russians, "The mere fact that they are clearly tracking the cables and prowling around the cables shows that they are doing something."



Democratic Senator Gary Peters of Michigan, an Armed Services Committee member, said Moscow's goal appears to be to "disrupt the normal channels of communication and create an environment of misinformation and distrust."

The Yantar's movements have previously raised eyebrows.

On October 18, 2016, a Syrian telecom company ordered emergency maintenance to repair a cable in the Mediterranean that provides internet connectivity to several countries, including Syria, Libya and Lebanon. The Yantar arrived in the area the day before the four-day maintenance began. It left two days before the maintenance ended. It's unknown what work it did while there.

Watkins described another episode on November 5, 2016, when a submarine cable linking Persian Gulf nations experienced outages in Iran. Hours later, the Yantar left Oman and headed to an area about 60 miles west of the Iranian port city of Bushehr, where the cable runs ashore. Connectivity was restored just hours before the Yantar arrived on November 9. The boat stayed stationary over the site for several more days.

Undersea cables have been targets before.

At the beginning of World War I, Britain cut a handful of German underwater communications cables and tapped the rerouted traffic for intelligence. In the Cold War, the U.S. Navy sent American divers deep into the Sea of Okhotsk off the Russian coast to install a device to record Soviet communications, hoping to learn more about the U.S.S.R.'s submarine-launched nuclear capability.

Eavesdropping by spies

More recently, British and American intelligence agencies have eavesdropped on fiber-optic cables, according to documents released by Edward Snowden, a former National Security Agency contractor.

In 2007, Vietnamese authorities confiscated ships carrying miles of fiber-optic cable that thieves salvaged from the sea for profit. The heist disrupted service for several months. And in 2013, Egyptian officials arrested three scuba divers off Alexandria for attempting to cut a cable stretching from France to Singapore. Five years on, questions remain about the attack on a cable responsible for about a third of all internet traffic between Egypt and Europe.

Despite the relatively few publicly known incidents of sabotage, most outages are due to accidents.

Two hundred or so cable-related outages take place each year. Most occur when ship anchors snap cables or commercial fishing equipment snags the lines. Others break during tsunamis, earthquakes and other natural disasters.

But even accidental cuts can harm U.S. military operations.

In 2008 in Iraq, unmanned U.S. surveillance flights nearly screeched to a halt one day at Balad Air Base, not because of enemy mortar attacks or dusty winds. An anchor had snagged a cable hundreds of miles away from the base, situated in the "Sunni Triangle" northwest of Baghdad.

The severed cable had linked controllers based in the United States with unmanned aircraft flying intelligence, surveillance and reconnaissance missions for coalition forces in the skies over Iraq, said retired Air Force Colonel Dave Lujan of Hampton, Virginia.

"Say you're operating a remote-controlled car and all of a sudden you can't control it," said Lujan, who was deputy commander of the 332nd Expeditionary Operations Group at the base when the little-publicized outage lasted for two to three days. "That's a big impact," he said, describing how U.S. pilots had to fly the missions instead.

5 Key Benefits from Conducting Tabletop Exercises

Source: <http://www.preparedex.com/5-benefits-conducting-tabletop-exercises/>

Simulated crisis tabletop exercises are like a flu shot: The vaccine won't prevent the illness one-hundred percent of the time, but if you do get the flu, the vaccine will greatly reduce the illness' severity and bring you back to health more quickly.

Apr 02 – The potential illness in your organization is, of course, a crisis. Natural disaster or human-caused, the crisis brings pain and suffering to your organization and could even spell



its demise. The tabletop exercise is a carefully orchestrated practice session where your crisis response team is assembled to respond to a realistically simulated crisis scenario — a very prudent vaccine. The scenario could be anything that could harm your organization's reputation and its ability to function, from a natural disaster or accident to human-caused crises such as a security breach, terror attack or internally perpetrated wrongdoing.



The tabletop exercise provides the most efficient way to test and improve the effectiveness of your organization's crisis plan and your crisis response team. Professional analysis of the exercise provides the crucial information you need to determine how well your organization would actually respond and continue functioning in a crisis, as well as how your plan and response team could be improved.

All organizations — corporations, religious or educational institutions, non-profits, government organizations, etc. — function like a living body. They have disparate systems — senior management, legal, finance, marketing, HR, communications, customer services, etc. — all working together to form an organized, healthy unit. A crisis in any one of these functions can metastasize to threaten the health of the entire organization. The inoculation of a tabletop exercise is the only way to be truly prepared for such an affliction.

It works like this: Over the course of a half- or full-day, your crisis team is assembled and presented with a realistically simulated crisis, the more realistic the better, that they must then interact with. Take, for example, a fire scenario that has resulted in fatalities. The people presenting the exercise (either an internally appointed team or outside consultants) do not present a static scenario. As would be the case with an actual crisis, the simulated one also evolves, often very quickly and in unexpected directions. It's a moving target where the plan and the response team must be able to adjust their responses as the shifting situation demands.

The goal of the tabletop exercise is to improve both your crisis plan and the functioning of your response team thereby strengthening your organization's immunity to crisis. When a crisis strikes, and it most assuredly will at some point, your crisis plan and crisis response team will be as prepared as they possibly can be and able to act in as effective a way as possible.

Other forms of exercises exist, ranging from simple drills to more elaborate full-scale exercises, but the tabletop exercise provides the most efficient and cost-effective way to test and improve your organization's crisis preparedness.

In our experience at PreparedEx, where it's our job to conduct and analyze organizations' performances during ultra-realistic tabletop exercises, we routinely observe five individual benefits that together work to achieve the overall goal of improved crisis preparedness.



1. Tabletop Exercises increase critical thinking among leaders under “near-real” conditions

Typically, members of a crisis response team come from different systems within the organization’s “body.” There’s the ultimate decision maker, which in a corporation would usually be the CEO. Or it could be the person in charge of a satellite facility where a crisis is occurring that may or may not impact the organization as a whole. There’s a COO, a head of IT, a chief legal counsel, HSSE manager, head of marketing, head of communications, the HR head, the person who manages customer relations, sales, etc.

When things are running properly day-to-day, each of these managers vigilantly manages his or her own function. Each person rarely works interactively with the managers of other units for joint efforts — EXCEPT in a crisis when they’re called upon to assemble as members of the crisis response team. If they have never practiced together during a tabletop exercise they will face having to learn on the job during an actual crisis. Their lack of experience working together in a crisis is a glaring lack of preparedness that could, and usually does, prove very costly to the organization’s health when things hit the fan.

During an actual crisis, your response team must function as a unit whose responsibility is nothing less than protecting the very life of your organization. It should be obvious that coming together to practice critical thinking and decision making on a simulated crisis is crucial to their acting effectively during an actual crisis.

If, for example, the scenario is a big fire that has resulted in injuries and fatalities, lots of disparate functions will suddenly be called upon to work together. There’s of course the operational side of the crisis, extinguishing the fire as quickly as possible. That could very well entail coordinating the organization’s fire-fighting team with a local fire department. Fatalities mean that HR people would need to know who was injured, who was killed and know how to work with operations to accurately identify those victims. They must then know how to respond to employees’ inevitable confusion and concerns. They must know how to respond to the frantic calls of family members of employees demanding to know the fates of their loved ones.

The media would be calling the communications team, asking tough questions. What happened? How did the fire start? Is it being fought effectively? Were safety measures in place? If not, why not? The communications team would have to be accurately informed by operations and external firefighters in order to respond appropriately. After all, the news will be reported with the organization’s input or not, so you’d want to ensure as much as is practicable that the correct information is being reported and the organization’s reputation is being protected.

Customers would call the organization’s sales reps and marketing folks to find out if the fire might mean their expected shipment of product may be curtailed. Government regulators may be inquiring to find out if certain fire regulations had been observed. Clearly there can be no effective management of the crisis without the coordinated efforts and decisions of the response team. The tabletop exercise enables the response team to train as a team, understand the plan, know how to coordinate decisions and find out where gaps in the plan might exist that can be corrected.

2. Tabletop exercises uncover issues before they happen for real

During a tabletop exercise, the team practices working together on the evolving crisis, which admittedly is a real divergence from everyone’s normal daily routines, and a very necessary divergence if they expect to be prepared for a real crisis. But during the tabletop exercise, something else inevitably happens: the plan is found to have deficiencies. HR’s requests for information on who was injured and killed is not forthcoming because local medical units brought to the scene will not release victims’ names because of their own policies that were never coordinated with the organization’s policies. Reporters have gathered on the facility’s perimeter and are shooting news footage of the dramatic flames. The communications team realizes that employees exiting the site are being interviewed without permission. Who knows what they’re saying, as they likely are not privy to the organization’s authorized information. One state legislator who has publicly attacked your company in the past for alleged safety violations is using your tragic fire as a political weapon. He’s now tweeting and appearing on TV saying that the fatal fire is an example of your company’s “irresponsible chickens coming home to roast!”



All of these sorts of challenges will emerge whack-a-mole style during a tabletop exercise, challenging your response team. The experienced observers conducting the tabletop exercise will be carefully recording the exercise proceedings in preparation for their “after action report” (AAR), which will include recommendations on how to amend the crisis plan to address these gaps.

3. Tabletop exercises bring together the right people and organizations, including outside organizations, to coordinate decision making

As illustrated in the fire example, many crises spill over to involve [outside agencies](#) such as fire departments, law enforcement, EMS and many other key stakeholders. Depending on the crisis scenario that will be simulated during the tabletop exercise, outside agencies can and should participate as they surely would be involved during an actual crisis. In fact, using the fire example once more, the outside agency may indeed become the *de facto* leader of the crisis team, forcing the organization to endure a subsidiary role in dispensing information to the public or the news media. Planners of a tabletop exercise would necessarily want to include the participation of outside entities that would be appropriate to the scenario chosen for the tabletop exercise.

4. Tabletop exercises establish clear preparedness objectives and work to achieve them

But how do you choose a scenario to exercise on? To answer this question, scenario planners must first determine the exercise’s objectives. In a properly designed tabletop exercise, the objectives should be clear, achievable and would contribute to improving the crisis plan and the response team’s performance. Each organization will have its own exercise objectives, but here are some typical examples:

- Identify gaps or other weaknesses in our crisis plan and in our decision-making process
- Ensure that our plan has provisions aimed at fostering business continuity even while we are dealing with the crisis
- Monitor public opinion of our reputation during the crisis and take steps that protect it
- Ensure that crisis-related messages stay consistent with our organization’s publicly stated values
- Ensure that our crisis-related communications are directed to and received by our highest-priority stakeholders, including our employees and board of directors

With objectives like these in mind, a scenario can then be constructed that would help the organization achieve its stated objectives. A productive tabletop exercise requires a scenario that’s plausible and could cause grave damage to your organization — the sorts of things that actually keep your organization’s managers up at night. A manufacturer, for example, might worry more about a factory shut down due to a flood, and a bank might be more concerned about a data breach. A non-profit philanthropic organization may be worried about potential financial mismanagement that would threaten its reputation.

If, for example, one of your objectives is to strengthen security and coordination with local law enforcement, you might opt for an active shooter scenario, which would necessarily involve local law enforcement. If your objective is to strengthen coordination between a crisis at a satellite facility with the crisis response team at headquarters located many miles away, then you may want to fashion a scenario such as a natural disaster where, say, power is knocked out at the facility, creating communications challenges between the two locations and business continuity problems. The objectives of the tabletop exercise help to formulate the scenario.

5. Thoughtful and objective evaluation of tabletop exercises will strengthen crisis preparedness

When the tabletop exercise is underway, those conducting the exercise will be carefully monitoring and recording the response team’s interactions, the crisis plan’s effectiveness, crisis-related communications produced by the response team, etc. — i.e., everything that occurs during the exercise. Because those who are conducting the exercise know the exercise objectives, they have a set of evaluation criteria in hand. These criteria should be standardized across the enterprise to ensure each facility’s location or line of business is evaluated equally.

It is from their carefully recorded observations combined with the objectives-driven evaluation criteria that an assessment of the exercise will be developed and presented in the AAR. The AAR will identify problems with the plan and response team and make



recommendations for improving both. The result will make your organization better prepared to cope with a crisis and able to return to normal operations as quickly as possible.

In Summary

It should be evident that these five benefits of tabletop exercises fundamentally contribute to an organization's health. Because organizations are always changing — new personnel, new products, new situations, new kinds of crises — tabletop exercises should be conducted on a regular basis, at least once or twice a year, to ensure optimal, up-to-date preparedness.

What is an undeclared intelligence officer?

Not all spooks are like James Bond

Source: <https://www.economist.com/blogs/economist-explains/2018/04/economist-explains-4>

Apr 05 – On March 14th Britain expelled 23 “undeclared intelligence officers” from Russia’s embassy in London. The move came after a former Russian spy, Sergei Skripal, and his daughter were poisoned with a nerve agent in the English city of Salisbury. In a co-ordinated show of solidarity, on March 26th America expelled 60 such undeclared spooks. Other British allies, such as Australia and Canada, made similar expulsions. Who are all these undeclared intelligence officers and, if Britain knew who they were, why did it not kick them out sooner?



There are two types of intelligence officers abroad. The first are “declared”: people who officially work in that role, within their home country’s embassy. Almost all countries send such people abroad to act as a liaison between their own intelligence service and that of their host country, for instance in co-operation against terrorism. Host countries are aware of their identity and keep them under constant surveillance. The second type of intelligence officer is “undeclared”. These people are also common in embassies but are not accredited as intelligence officers, because their official job is doing something else, for instance in the consular, political or economic section. As they are not declared intelligence officers, they are theoretically under less surveillance and can do more to gather intelligence. There are, in addition, covert agents embedded in society outside the embassy.

Host countries often turn a blind eye to undeclared intelligence officers within embassies. They will have their own spooks in their embassies abroad, and it is accepted that if you expel such officers, your diplomats and spooks will in turn be expelled, as indeed happened on March 17th when Russia kicked out 23 British diplomats. Host countries often have suspicions about who is a spook among the diplomats. But if a country believes that foreign agents have committed a crime, as happened with Sergei Skripal and his daughter, the only way to punish embassy employees is to expel them, since they have full diplomatic immunity. Covert agents who are not diplomats have no such immunity and so, if they are caught, they may be charged with espionage and put on trial (or, in some countries, much worse). Intelligence sources suggest that the number of undeclared Russian intelligence officers posted in Western countries has grown substantially in the past decade and that there are at least as many in Britain now as at the height of the cold war. In the short run, the recent expulsions will certainly dent Russia’s ability to gather the intelligence it wants. But the Russians will undoubtedly look to replace their expelled spooks. The latest round of expulsions therefore means at least one thing: Western counter-espionage services will be unusually busy in the coming months trying to identify the new arrivals.

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Four types of employees who are potential insider threats

Source: <http://www.homelandsecuritynewswire.com/dr20180405-four-types-of-employees-who-are-potential-insider-threats>

Apr 05 – **Academics have identified four types of employees who can become a threat to their companies – and explained the reasons why their workplace behavior declines.**



Researchers from the Universities of Glasgow and Coventry found organizational change within a company can act as an important trigger prompting even loyal and longstanding employees' behavior to worsen.

The results of this range from time-wasting in the office to giving away confidential business information to competitors.

They identified types of employees - omitters, slippers, retaliators and serial transgressors – who carry out this 'counterproductive work behavior' and the factors which cause it, in their new report.

Their findings have been used to create a series of resources to help employers manage organizational change and to try to prevent this behavior by staff.

Coventry [says](#) that the project – funded by the [Center for Research and Evidence on Security Threats](#) (CREST) – collected data from a company undergoing organizational change.

The research, by Professor Rosalind Searle and Dr. Charis Rice, involved interviewing managers and employees, reviewing HR and security paperwork relating to insider threat cases and carrying out anonymous surveys within the organization.

Their work revealed negative impacts of organizational changes – such as unpredictable working environment, inadequate communication, inconsistent leadership and unfair changes or processes - can cause distrust to form among employees and their managers.

This reduces people's psychological attachment to their companies and makes them more likely to carry out behavior that makes them an insider threat.

The four types of employees who could potentially become an insider threat to their company are:

- **Omiters** – These are people who carry out this behavior through an incapacity to effectively self-regulate their actions. They unintentionally breach rules and need help from colleagues to reduce the insider threat risk they present.
- **Slippers** – These are employees who occasionally undertake single acts of counterproductive work behavior, such as taking home 'on-site only documents' or being rude to others.
- **Retaliators** – These are employees who deliberately undertake small acts designed to harm the organization. Over time, if unchallenged and uncorrected, these can cause problems for colleagues and create additional costs and risks for their employers.
- **Serial transgressors** – These individuals undertake a wide array of counterproductive work behavior which undermines the authority of management and increases the security risks of those they work with.

But Searle and Rice say **managers can help reduce this behavior by introducing the five core skills.**

These are: being fair and consistent with HR procedures and people during times of change; creating a system of organizational citizenship in which reporting counterproductive working behavior is considered a protective measure rather than a punishment; communicating change initiatives transparently, consistently, regularly and collaboratively; adapting change initiatives in response to assessments of individual, team and organizations vulnerability; and managers leading by example.

Rice, from Coventry University's Centre for Trust Peace and Social Relations, said: "There are many examples of high-profile companies which have made the headlines following employee sabotage. It is vitally important to understand how these situations come about: the types of employee who might resort to these behaviors; why it happens and how managers' actions can prevent this happening.

"Our aim was to provide a framework to predict, identify and mitigate counterproductive work behavior and insider threat within the context of organizational change.

"We found examples of team and managerial distrust that led to employees withdrawing their effort from organizations and in some cases even bred revenge behavior."

Searle, from the Adam Smith Business School at University of Glasgow, said: "Critically, our results showed that such outcomes were often an unforeseen consequence of an existing 'need to know' security culture and in part, the perceived heavy-handedness of HR and security teams with whom staff felt reluctant to share concerns."

►► See the report and other resources at the [CREST website](#).



The Marriage Plot

By Melissa Knox

Source: <https://clarionproject.org/marriage-plot/>

Apr 08 – My student Aliah (not her real name) from Afghanistan doesn't wear a [hijab](#), but then neither did my other Afghani student, the brilliant science major, the one who said her parents were so proud of her for getting a degree in chemistry.



The science major talked about her family's experiences as refugees in Germany: "Before 9/11, I used to have to draw a map and point to where Afghanistan was. The day after, I didn't have to do that anymore."

I should have listened harder, considered the gravity of her next remark, which she delivered off-handedly, resignedly, and with a laugh: "My father always told us to remember that we're living in Germany, but we're not Germans."

The science major came to my office hour one day and asked me about New York, where I'm from. She wanted to visit. What sights would I recommend? Did I know of inexpensive hotels? I was just warming to my favorite topic, my paradisiacal city, when my student unexpectedly burst into tears.

Shocked, I blurted, "What's the matter?"

Her tears came so unexpectedly I thought I'd said something that offended her.

"I really want to travel," she sobbed, "But my family wants me to get married."

Here was a young woman, an 18- or 20-year-old young woman who dressed like the other students, the majority of whom were Western European, mostly German students. She wore blue jeans, a T-shirt, a charm on a chain around her neck, running shoes.

What came out of my untrained mouth at that moment was, "Are you being threatened?"

She sat and shook her head, one hand tugging at the charm necklace. She looked down. "No," she finally said. "But it would break my father's heart if I didn't get married."

To my question, "But what do *you* want?" I got a bewildered stare. What *she* wanted?

What I didn't know then, and still cannot understand, is that there had never really been a "she" in the sense that "my" and "me" are taken for granted among Western women.

"She" belonged to a large clan that had its own life, its own rituals, into which "she" fit like a cog.

What "she" wanted? Would I ask a door what it wanted? Would I ask the fish in my aquarium? My student might look like the Western students, she might speak like a Westerner, but she does not feel like one, and my idea that she might want something just for herself remains alien, undesirable.

Or as my other Afghani student, Aliah, says of her adoptive parents, "They want me to get married, move my husband in and live with them forever and ever." She says this with a smile, but not a happy smile.

My student (the science major) wrote to me a few times, asking for reading lists. Months later, I saw her on the street in a neighborhood near the university. She was hugely pregnant and wearing a black burqa.

I am not sure whether she saw me.

I'd failed her. The university had failed her. Germany had failed her. But there remains no support system to which I, her teacher, or she, can turn, without the willingness, on either of our sides, to act very independently and to some degree, outside custom and law.

Aliah is not yet married and does not wish to marry, but every time I see her I wonder whether she will find the strength to pull away from her family, and whether I am able to help her. I listen. I only found out she was from Afghanistan because she wanted to write an essay on her work in the refugee camp near our university where she volunteers.



Offhandedly — so often, the crucial information is delivered casually — she mentioned in class, “I just came from the refugee center, where a fight broke out last night, and it took forever to calm them down. We still don’t know what it was all about.”

She spoke of Afghani women whom she accompanied to doctor’s visits. Even on gynecological visits, the husband, the brothers, the uncles, all had to come along.

When the doctor asked what the problem was, the women answered, “Ask my husband,” or “I don’t know,” or “If my husband agrees.” The doctor was usually not allowed to examine her and so resorted to prescribing a painkiller for an unknown condition. Aliah herself was considered by the men a busybody and sometimes asked whether her father approved of her work.

I asked Aliah how she’d come to work at the refugee center. She was a translator.

In an office hour, I mentioned that she seemed to know a great deal about refugee work, that the topic was timely. I asked whether she’d rather stick to a paper on refugees in Germany.

“You know,” she said with a half-smile, “This is all rather close to home.”

She’d been orphaned in Afghanistan as a child and adopted by her aunt and uncle in the medium-sized German city where we live. She remembered me from the local elementary school, where years before I’d picked up my daughter.

“You knew my aunt,” she said. As she described her, the scene came back to me: a foreigner. I’m always more comfortable speaking German with non-Germans. The pleasant woman in the lavender burqa stood, like me, near the radiator of the school entrance on chilly winter days. She and I chatted about recipes, and she mentioned that she was from Afghanistan, where she had lost “much family.”

We talked until my first-grader appeared, and then her daughter, slightly older, and the only child in the school in a hijab.

In my office, I remembered this with Aliah. “Yeah, my sister doesn’t wear the hijab anymore outside,” she said. “Neither do I. There’s a lot my parents don’t know,” she sighed.

Her biological parents, slaughtered in Afghanistan when she was nine, had not been particularly religious, but her mother’s sister, her aunt, to whom she was then sent, was very traditional. Aliah had lost one set of parents and was loathe to lose another. But was she really going to get married just to stay with these people?

“Well, they’re getting older. I owe them.”

“Your *life*?” (Should I be saying this to a student?) “But do you want to get married?” I asked.

“No!” she looked horrified. “But I won’t leave without my sister.”

Aliah is different from my other student who is now married. Aliah’s real parents didn’t believe in women wearing hijabs. They were, she remembers, more Western. But they’re gone, and my impression is that Aliah saw them taken away, saw them murdered.

Aliah already ran away from home once. When she was about to finish high school, her aunt insisted it was time to marry. Aliah bolted in a panic, returning when she ran out of money, and now she feels guilty, remembering they were “heartbroken.” She also has a new deadline: as soon as she finishes her B.A.

When she comes to office hours, we start with the courses she is taking and the exams she needs to take. If she volunteers information about her home life, I ask leading questions, and I have given her links to German and international organizations that help women escape forced marriages. But Aliah’s courage wavers, and no wonder.

“Do you have any support system?” I asked one day. The university doesn’t. There’s a student complaints office, where students go to grouse about grades or bad teaching. There’s a psychologist, but apparently not one offering the help these girls need. The alternative, the office of the local Protestant church in the student center, isn’t where Aliah wants to go.

“Well, no. I mean, my friends all say what’s the big deal. They’re just getting married because their parents want them to.”

Her friends have reason to conform. The price to pay for peace is marriage. Yes, they could say no and be beaten. Or say no and be cut with an axe. Or say no and be locked in a room.

Or say no, and, like Aliah, not be allowed to leave the house.



Last week, she didn't come to office hours when she'd asked to see me. I sent an email and she did write back, indicating that male cousins from Afghanistan were visiting, that they were a "bit overbearing," she wrote, adding that she had difficulty leaving the house without a hijab.

I've seen students far more conservative than Aliah, who come to class in hijabs and clothing that covers all but the eyes and feet. At one point, I had many — my husband's theory was that these women did not want to run the risk of having to follow German custom by shaking hands with a male teacher. They don't want to be alone in the office of a male teacher during his office hour. My husband once entered a university elevator and the other occupants — two women in burqas — glanced at each other and left the elevator.

On the first day of my seminar on Philip Roth, I passed out excerpts. As a student read aloud from one of Portnoy's masturbatory scenes, I noticed, for the first time, a woman in a hijab with a stricken look. She lurched to her feet and left the room. So much for safety from a woman teacher, I suppose she was thinking.

Some family friends invited my husband and me to dinner one night, and it turned out their daughter was attending the same academic girl's high school that Aliah had attended. Aliah's sister currently attends the same school.

"I wish I could help these girls," I fumed at dinner. Knowing her sister is about to be told that she, too, must marry, Aliah wants to shield her from her own experiences.

"Let her enjoy for a while—think about fun and boys." She was afraid her sister would also ruin a whole semester's worth of grades, as she had, when she ran.

With the help of our host's daughter, I arranged a meeting which Aliah attended with the principal of the school, a nun deeply engaged with child welfare. But like me, the nun could offer little practical help.

Germany is very regulated. By law, she cannot provide housing for students in dire straits. She has to contact a social worker, who offers temporary housing in a nearby city.

The alternatives — my family's guest room for a few weeks, the Ayaan Hirsi Ali Foundation's escape help — are pathways Aliah is deeply conflicted about following.

Until German schools and universities become more aware of women like Aliah and their isolation — and their inability to articulate the depth of the problem — the marriage plot will thicken, as it already has.

Many refugees, fearing the West as a den of iniquity, force girls to marry at 16, effectually ending all chances at education and independence.

So, what am I going to do? I'm going to teach a course about American women and religion. Officially, the course will cover the Puritans and their influence; the appearance of new faiths imported by the slave trade as well as immigration; notions of identity in America, including the idea that identity, like death, remains a choice; cults, conversions, politics and gender.

But actually, I'll be imposing my own narrative on the course material, whose readings will include Ayaan Hirsi Ali's provocatively titled book *Nomad: From Islam to America* as well as G. Willow Wilson's *The Butterfly Mosque*, a tale of conversion from ethnic W.A.S.P to Islam.

My narrative goes like this: Women should make choices that suit themselves, not their families. Women should marry when they pick out partners whom they love. Women should not sit passively while religious forces move them around ideological chess boards.

That those ideas — marriage for love, marriage as personal choice, of choice in general — remain largely products of Western democracy is both a problem and a solution. I hope my course will incite my Muslim and non-Muslim students alike to ask questions about problems and about solutions, and to want them to find their own answers.

My own story has more similarity to Aliah's than I wish. At 14, I was sent, following local custom on the Upper West Side of Manhattan, to a psychoanalyst. This ritual of puberty, so widely accepted that I never questioned it, dictated that the psychoanalyst's word was law. Enforced secrecy enabled this practice: I was warned by the analyst never to divulge anything the two of us discussed privately in his office. To repeat his words or my replies, no matter how seemingly unimportant, would impair, if not ruin, my analysis with grave consequences for my future.

Like a sacrificial maiden offered to a demanding Yahweh, I strove for decades to do and to be what this man demanded, pushing aside my own needs and wishes as unimportant or



worse — “neurotic,” “psychotic,” “narcissistic,” said the analyst. Though he didn’t actually beat me, he often went into rages, spending the session yelling at me for my insolence.

I often wonder if I’d have challenged his authority if I’d been older, but I’d been schooled to believe he knew more. My parents went to analysts. Going to the analyst was more than our time-honored family tradition: it was our religion. The analyst was a man with grey hair and an authoritarian air that was easy to mistake for confidence. Following his instructions, which never led to fulfilling my own ambitions, I lost the most important years of my life.

No matter what anyone said, I knew he was right. In the face of shocked friends, who didn’t laugh when I joked about “the goat-prod method of psychoanalysis,” in the face of second-wave feminism, in the face of whatever shreds of common sense I had, my feeling that I would lose everything overwhelmed all of the above.

It is this same feeling of imminent loss that that paralyzes my young students. How many 16- to 22-year olds can leave behind the family that raised them and now demands so much? How many believe they are able to live independently or even will be far better off on their own?

I have yet to meet one.

I would like to be able to prevent other young women from making mistakes with far more painful consequences. It was difficult enough for me to escape my tyrant, who insisted he was the only one in the world who could help me. He made it clear I was in dire need of his help.

Like Aliah’s family, he wanted me to stay with him forever and ever, doing all in his considerable power to try to prevent me from leaving him and marrying my husband.

A bit of luck — the psychoanalyst’s age-related decline, my husband’s home in a country far away — removed me from a world in which I’d been taught to think of myself as nobody and the analyst as God. These patterns are familiar in too many cultures, and mine offers me some understanding of Aliah’s. If I could help her, I could feel my young years were not entirely wasted — at least I’d have learned how to help some other woman from losing herself to an authority who has no interest in allowing her to choose what she wants from life.

Why America doesn’t win wars anymore

Source: <https://www.vox.com/2018/2/15/17007678/syria-trump-war-win-interview>

Apr 09 – A month into his presidency, Donald Trump lamented that the US no longer wins wars as it once did.

“When I was young, in high school and college, everybody used to say we never lost a war,” Trump [told](#) a group of US governors last February. “Now, we never win a war.”

[Dominic Tierney](#), a professor at Swarthmore College and the author of multiple books about how America wages war, may know the reason why.

He believes the US can still successfully fight the wars of yesteryear — World War-style conflicts — but hasn’t yet mastered how to win wars against insurgents, which are smaller fights against groups within countries. The problem is the US continues to involve itself in those kinds of fights.

“We’re still stuck in this view that war is like the Super Bowl: We meet on the field, both sides have uniforms, we score points, someone wins, and when the game ends you go home,” he told me. “That’s not what war is like now.”

The US military is currently [mired in conflicts](#) in countries like Afghanistan, Iraq, Syria, and Yemen. It’s hard to see any end in sight — especially an end where the United States is the victor, however that’s defined.

A lightly edited transcript of our conversation follows.

Alex Ward

During his first year in office, Trump got the US [more deeply involved](#) in wars, with the goal of defeating terrorists in Iraq, Afghanistan, Syria, and Somalia. But has this put the US on course to end these fights?



Dominic Tierney

Victory may be asking a lot.

Since 1945, the United States has very rarely achieved meaningful victory. The United States has fought five major wars — Korea, Vietnam, the Gulf War, Iraq, Afghanistan — and only the Gulf War in 1991 can really be classified as a clear success.

There are reasons for that, primarily the shift in the nature of war to civil conflicts, where the United States has struggled. Trump himself recognized this: He [said](#) on the campaign trail numerous times that we used to win wars and we don't win anymore. And he has promised to turn the page on this era of defeat and said that we were going to get sick and tired of winning.

But will he channel that observation into winning wars? I doubt it.

The nature of war continues to be these difficult internal conflicts in places like Afghanistan, where the United States has struggled long before Trump ever dreamed of running for president.

Alex Ward

So what constitutes victory in war today, and has that changed from the past?

Dominic Tierney

The famous war theorist Carl von Clausewitz [argued](#) that war is the continuation of politics by other means. So war is not just about blowing things up — it's about achieving political goals.

The United States, up until 1945, won virtually all the major wars that it fought. The reason is those wars were overwhelmingly wars between countries. The US has always been very good at that.

But that kind of war has become the exception. If you look around the world today, about 90 percent of wars are civil wars. These are complex insurgencies, sometimes involving different rebel groups, where the government faces a crisis of legitimacy.

The US has found, for various reasons, that it's far more difficult to achieve its goals in these cases. The three longest wars in US history are Vietnam, Iraq, and Afghanistan — all from recent decades, all these complex types of civil wars.

Alex Ward

On its face, this seems to be a paradox: The US can win on the battlefield against a major military force, but we can't seem to win these smaller wars.

Dominic Tierney

Yes. And even more surprising: It's when the US became a superpower and created the best-trained, strongest military the world has ever seen, around 1945, that the US stopped winning wars.

The answer to the puzzle is that American power turned out to be a double-edged sword.

The US was so powerful after World War II, especially after the Soviet Union disappeared, that Washington was tempted to intervene in distant conflicts around the world in places like Vietnam, Iraq, and Afghanistan.

We ended up intervening in countries where we had little cultural understanding. To illustrate this, in 2006 — at the height of the Iraq War — there were 1,000 officials in the US embassy in Baghdad, but only six of them spoke Arabic.

In addition, the US military has failed to adapt to this new era of war. The US military has this playbook for success against countries: technology, big-unit warfare, and so on. And when we started fighting insurgents, it was natural that we would turn to that same playbook.

Alex Ward

So we might not have much cultural understanding of the places where we're fighting, but we have greater technology and better fighting forces. Why can't we overcome this obstacle?

Dominic Tierney

The reason, again, comes down to the difference between an interstate [more traditional] war and a counterinsurgency, or nation-building mission.

One difference is that we cannot easily see the enemy. In an interstate war, the enemy is wearing uniforms, we know where they are on a map. In a counterinsurgency they are hiding in the population.



Now, the US military is capable of hitting any target with pinpoint accuracy using the latest hardware. But what if we don't know where the enemy is? A lot of that technology, which is really impressive, turns out to be irrelevant.

Alex Ward

It seems like we have two problems here. We haven't corrected our way of thinking to deal with insurgencies or civil wars, and then we keep getting involved in those kinds of wars, despite the fact that we're ill-prepared to deal with them.

Why do we keep falling into this trap?

Dominic Tierney

One answer is we basically believe in illusions — the idea that nation-building and counterinsurgency will be avoided.

Look at Iraq, where the United States believed it could topple Saddam Hussein and basically leave as quickly as possible. We would overthrow the tyrant and then the Iraqi people would be free to create their own democracy. That was based on massive overconfidence about what would happen after Hussein fell.

So why do we go to war if we hate counterinsurgency and we struggle at it? The reason is the White House convinces itself it doesn't need to stabilize or help rebuild a country after a war. But it's not just the Bush administration — think of the Obama administration too.

Barack Obama was a very thoughtful president and talked at length about his foreign policy thinking. At the heart of the Obama doctrine was "no more Iraq War." And yet he basically made the same mistake in Libya, where there was very little planning for what would occur after [Muammar Qaddafi](#) was overthrown in 2011. In fact, Obama went on the record [saying](#) that the Libya intervention was his worst mistake as a president.

Alex Ward

So if it really is a bunch of wishful illusions and incorrect assumptions, how do we avoid that? We have tons of evidence that things don't go our way when we get involved in these kinds of wars. We don't seem to learn from our mistakes.

Dominic Tierney

We don't learn very well from history. Presidents convince themselves that the next time will be different. The lesson Obama took from Iraq was not to allow any US ground forces to get involved in nation-building. Since Obama was willing to support regime change, the end result was going to be the overthrow of Qaddafi with no real plan to stabilize Libya.

If a thoughtful president like Obama — who was very cognizant of the errors of Iraq — can do that, it suggests that any president would be capable of doing that.

Alex Ward

It seems like one of the problems is that we're involving ourselves in these wars with little preparation. How do we solve that?

Dominic Tierney

We need better language training, cultural training, more resources for special forces — and that would mean less money spent on nuclear attack submarines, for example.

Second, once we improve America's ability for stabilization missions, we deploy the US military with greater care and fight fewer wars. That means when we *do* fight, we have a better plan to win the peace.

Alex Ward

But then there's another problem: Sometimes groups like ISIS arise, and US leaders and many Americans [want](#) the military to take them out. So when the president is faced with the option to target a group like ISIS with airpower, some would argue that it's better, politically, to do that.

Dominic Tierney

The US doesn't think several moves ahead. The US military is good at taking out bad guys. But the removal of the bad guy creates a power vacuum, and that power vacuum is filled by somebody else.



In Afghanistan, we created disorder and then the Taliban returned — the power vacuum there was also filled by ISIS. And in Iraq, the vacuum was filled by militant groups, most notably al-Qaeda in Iraq. In Libya, the vacuum was filled by a complicated range of militant groups.

The mood in the US is: “We just killed ISIS, let’s go home and close the book on the ISIS war.” Well, there’s more to the story.

Alex Ward

The Trump administration says it will pay less attention to defeating terrorists and will now focus more on battling back growing Chinese and Russian power.

That new strategic focus means we’ll change the kinds of weapons we buy and the kind of training our troops do. But I don’t see the US stopping its fight against terrorism. Does this preparation for a different style of war — while still fighting another — put the US in an awkward position?

Dominic Tierney

I think it does.

There is a desire to shift from difficult nation-building missions toward countering great-power challengers like Russia and especially China. But this isn’t very new. The Obama administration wanted to pivot to Asia and the China challenge. And then what happened? We ended up being engaged against ISIS.

I tend to think that the pivot to China is sort of like *Waiting for Godot* — it never arrives. And I think the United States is going to get drawn back into these civil wars and these kinds of messy conflicts, particularly in the broader Middle East. The odds of conflict between the US and China are very low; the odds of the US engaging in another civil war in the next five years are extremely high.

Alex Ward

Based on this conversation, victory in war seems to be how we define it, or, rather, will it to be. The US sets its [victory goals low](#), but we don’t even meet those lower goals. Why can’t we get over this hump?

Dominic Tierney

We’re still stuck in this view that war is like the Super Bowl: We meet on the field, both sides have uniforms, we score points, someone wins, and when the game ends you go home. That’s not what war is like now. Now there are tons of civilians on the field, the enemy team doesn’t wear a uniform, and the game never ends. We need to know there’s no neat ending.

The costs of this problem have been so catastrophic for the United States, in the form of thousands of military lives and billions of dollars spent. **It’s time we fundamentally rethink our vision of what war is.**

Hungary’s Election Was a Milestone in the Decline of Democracy

Source: <https://slate.com/news-and-politics/2018/04/the-re-election-of-hungarys-authoritarian-prime-minister-disproves-everything-we-thought-we-knew-about-democracy.html>

Apr 09 – Until recently, many political scientists believed that there was a certain set of countries in which democracy was safe: Once a country had changed governments through [free and fair elections a couple of times, and reached a GDP per capita of about \\$14,000 in today’s terms](#), its political system had supposedly “consolidated.” We could confidently predict that it would still be democratic 10 or 25 or 50 years from now.

The recent election in Hungary is the latest piece of evidence that this theory has always been dangerously naïve and now needs to join other well-worn illusions—like the inevitability of democratic transition in China or the supposed stability of divine-rights monarchy—on the ash heap of history.

Ten years ago, **Hungary certainly looked like a “consolidated democracy”**: It had a record of impressive economic growth. It had completed several democratic transitions since the fall of communism. In 2004, it capped its success by joining the EU.

On the face of it, Sunday’s election fits comfortably within this story: With an increased vote share of about 50 percent and a remarkably high rate of voter turnout at about 70 percent, Viktor Orbán won re-election as his country’s prime minister for the third consecutive term; because he won a two-thirds majority in the Hungarian Parliament, he now has the power to change the



constitution. [In the words of the Frankfurter Allgemeine Zeitung](#)—which, like a remarkable number of papers across Europe and the United



States, has reported the election with a remarkable disinclination to look beneath the shining surface—Orbán has “vastly extended the basis for his legitimacy.”

The truth is rather more complicated than that. Orbán owes his immense power to the big changes to the electoral system he pushed through in a highly partisan manner. Indeed, it is only because the new laws he championed give huge advantages to the biggest political party that, even though only about one-third of eligible voters supported him, he now commands more than two-thirds of the seats in Parliament. And it is only because he enfranchised people of Hungarian origin who have always lived in neighboring countries like Romania, while *disenfranchising* many current Hungarian citizens who happen to reside abroad, that he got this large a share of the vote in the first place.

More importantly, it is a big mistake to take this weekend's proceedings at face value. There have been widespread reports of irregularities ranging from state employees who were effectively forced to vote for Orbán to the misuse of government funds for campaign purposes. As a result, the electoral mission of the

Organization for Security and Cooperation in Europe (OSCE) has been [unusually critical of the election](#), bemoaning a litany of “serious issues” that undermine its legitimacy.

But the most important fix had, in any case, come in long before election day. Orbán turned Hungary's state media into a pure propaganda outlet. He used his power to engineer the sale of critical opposition outlets into the hands of his loyalists. He used his control over the country's electoral commission to impose arbitrary fines on opposition parties, effectively rendering them incapable of mounting a real campaign.

All in all, then, the Hungarian elections were mostly free but hardly fair. The best way to think about them is as falling somewhere along the long continuum between true

democratic elections and the complete sham that is perpetrated at regular intervals in countries like Russia or Venezuela.

Far from being a routine election in a small European country, then, the events in Hungary have what devotees of Hegel or Marx would call “world-historical significance.”

What's even more important than the sobering reality of this election, though, is the sorry outlook for the next one. Orbán already controls the country's judiciary, most of its media, and its electoral institutions. He has repeatedly made clear that he would consider a victory of the opposition an existential threat not just to him but to the very survival of the Hungarian nation. Now that he has even greater power to dismantle the rule of law, and to abolish checks and balances, it is difficult to imagine that he would prove willing to leave office of his own free will.

Most likely, Orbán will once again be able to use his political power to ensure that he is “re-elected” in 2022. But even if, by some miracle, the opposition should manage to overcome all of the obstacles he has already put in their way, and carve out a narrow



majority four years from now, Orbán is likely to stay on. In short, his country has now completed a process that I predict in my book [The People vs. Democracy](#), but that has mostly remained theoretical until now: It was once a liberal democracy. As Orbán undermined the rule of law, dismantled the separation of powers, and massively violated the rights of ethnic minorities, it turned into an [illiberal democracy](#). Now, it is effectively a dictatorship with a thin electoral veneer.

Far from being a routine election in a small European country, then, the events in Hungary have what devotees of Hegel or Marx would call “world-historical significance”: They show us that a widely held theory about the future of democracy is wrong and raise the specter of dictatorship’s return to the heart of Europe.

You would think, then, that this event is being recognized as a major development in both Europe and North America. But you would be wrong.

The European political class has so far reacted to Orbán’s re-election with some mix of indifference and resignation. Even though their own civil servants have participated in the OSCE mission to Hungary, senior political leaders have duly congratulated Orbán on his success. Horst Seehofer, the German interior minister, has even expressed his “joy” and scolded other countries [for “condescension” to Orbán](#).

Though Hungary would never, at present, meet the criteria for a country to join the European Union, there seems to be no serious attempt to suspend its membership or to limit the generous payments Brussels directs to Budapest every year. Most shamefully of all, Orbán’s party, Fidesz, remains allied with mainstream center-right parties like Angela Merkel’s Christian Democratic Union in the European Parliament. The price that European democracies will have to pay for standing by as a country in the heart of the continent slides toward dictatorship is immense. Orbán’s rampant anti-Semitism is already finding eager imitators in Western Europe. Parties from Italy’s The League to Austria’s Freedom Party are keen to take a page out of his authoritarian playbook. Perhaps most importantly, though, the EU’s inaction toward Hungary risks changing its very nature: Long hailed as a club of democratic values that might

serve as a model for other regions around the world, Hungary’s continued membership is effectively transforming the EU into a sclerotic trade block that can claim to stand for no higher ideal than ensuring the harmonization of emissions standards across the continent.

What has in some ways been even more appalling, however, is the degree to which many “conservatives” in the United States and the United Kingdom have celebrated Orbán’s victory.

To them, Orbán is a hero because he is strongly opposed to Merkel’s decision to open her country’s door to more than 1 million refugees from Syria. And so any criticism of Orbán is, in their minds, part of a vast liberal conspiracy to impose leftist policies under the banner of defending democratic norms. This is true of some of Trump’s core supporters, of course: [Breitbart](#), for example, rejoiced that “Anti-globalist, anti-Soros Orbán wins third term in Hungary.” It is also true of parts of the British media, whose anti-Brexit wing has increasingly come to [echo Viktor Orbán’s anti-Semitic attacks on George Soros](#). And it is even true of many commentators who would probably prefer to call themselves anti-anti-Trumpists: As [one viral tweet](#) would have it, the claim that Orbán “is at war with democracy” is merely code for the fact that liberals dislike his immigration policies and that he “keeps winning elections by getting more votes than his opponents.”

It’s difficult to tell whether this stance is a product of proud ignorance or whether it reveals a depth of cynicism toward democracy that should be seen as a frightening preview of what is to come closer to home. So let me be clear: The primary problem with Orbán is *not* his decision to close his country’s doors to refugees. It is the fact that he has abolished the independence of the judiciary, destroyed the freedom of the press, and perverted the country’s electoral system.

Commentators who are willing to justify all of these infractions because they happen to agree with Orbán’s stance on immigration are effectively declaring that it is perfectly legitimate to abolish free and fair elections in order to pass your favorite policies. That demonstrates rather effectively what we should make of their simultaneous insistence that



worries about the Trumpist turn in American politics are overblown.

So yes: Defenders of liberal democracy need to be very careful to distinguish between democratically legitimate policies they deeply dislike and attacks on democratic norms and institutions that threaten to destroy the whole

system. But by the same token, anti-anti-populists need to be very careful not to become complicit in the destruction of democracy just because they happen to agree with some of the policies pursued by the supposed champions of the people.

[In-Depth Analysis - Preparing FP9: Designing the successor to the Horizon 2020 research and innovation framework programme - 11-04-2018](#)

11-04-2018

The preparation process for an EU framework programme for research and innovation includes a variety of activities: evaluation of the previous programme; expert studies to define the scope and priorities of the new programme; and proposals for new instruments. The EU institutions, the advisory committees, the Member States and other stakeholders also put their expectations and opinions forward on the shape and content of the programme. This paper provides an overview of all the activities developed to contribute to the preparation of FP9. It also analyses the position of all the actors on 10 key discussion points including: the difficult battle over the FP9 budget; the tensions between support for excellence and the need for cohesion; streamlining of instruments and simplification of processes; requests for greater EU added value from the programme, linked to its collaborative nature; the role of the Member States in the programme's governance and implementation; and the expected innovations: the European Innovation Council and a mission-oriented approach.

UAE targets Turkey over its increasing regional influence

Source: <https://www.yenisafak.com/en/world/uae-targets-turkey-over-its-increasing-regional-influence-3308973>

Apr 13 – In recent years, the United Arab Emirates (UAE), which has been spreading terrorism with the United States and Israel, has taken a different direction after the Twin Towers attack on Sept. 11, 2001. The fact that two of the terrorists who carried out the attack were UAE citizens and that they entered the U.S. via Abu Dhabi had shifted attention to the country. The UAE changed its security and intelligence structure following this and received great support from the CIA, soon becoming one of the biggest financiers of terrorism.

UAE disturbed by Turkey's regional influence

The UAE, being disturbed by Turkey's strong ties with its neighbors, African countries and the geography spanning from the Syria-Iraq axis to the Balkans, has become a tool used by Western powers in projects aiming to harm Turkey. Abu Dhabi provided great financial backing for Turkey's failed July 15 coup perpetrated by the Fetullah Terrorist Organization (FETÖ).

Abu Dhabi has played a leading role in the boycott against Qatar because it is also disturbed by Turkey's relations with Doha which have improved since the blockade.

UAE hires CIA agents to build spy agency, train intel officers

Former agents of the Central Intelligence Agency (CIA) are using a facility near the Zayed Port in Abu Dhabi as a base to teach modern spy techniques to intelligence officers of the United Arab Emirates (UAE), according to U.S.-based Foreign Policy news magazine. The CIA also has a training center called "The Academy" near Abu Dhabi where the American security company Blackwater employees are located. At the center that includes a gun range and barracks, driving courses are given, as such in the Camp Peary, the CIA's base in the



Virginia State. Unlimited funds Ex-CIA and U.S. government authorities are attracted to the Gulf country with commitments of an “interesting job” and a “lucrative career.” A former employee, speaking to Foreign Policy, said that he earned \$1,000 a day and lived at a five-star hotel in Abu Dhabi, adding that “The money was fantastic.” According to multiple sources, former intelligence officer Larry Sanchez is behind the intelligence training operation. Sanchez is known for starting a controversial partnership between the CIA and the New York Police Department (NYPD) that envisaged tracking “potential terrorists” around New York. Key US officers in UAE Another remarkable figure in the region is Erik Prince, the founder of Blackwater, which the United States used in Iraq’s occupation. The New York Times revealed in 2011 that Prince had dispatched a unit including foreign troops to the UAE to serve Crown Prince Sheikh Mohammed bin Zayed bin Sultan al-Nahyan. Richard Clarke, the former White House counterterrorism czar, also assumed top assignments in the UAE; Clarke worked as a senior advisor to al-Nahyan as the Good Harbor Security Risk Management CEO. British also involved An Emirati company called LUAA LLC, managed by a former British Air Service official, undertook the establishment of the spying network. A third Emirati company, DarkMatter, was also highly involved in the process. DarkMatter works for the UAE government on cyber security and intelligence. NSA takes a part in the process In late 2011, U.S. government advisors and contractor troops helped establish the UAE version of the National Security Agency (NSA) in the United States, of which its name was later changed to the National Electronic Security Authority and then the current Signals Intelligence Agency. Around the same time, Larry Sanchez and his team came to the UAE and started to teach “domestic surveillance.” As president of the low-profile intelligence contractor CAGN Global Ltd, Sanchez began to provide spying and paramilitary training operators in the UAE, with a team that mostly includes former police officers, retired Western intelligence officials and ex-soldiers. Modeled on CIA trainings The courses, which are modeled on the CIA’s trainings, are divided into various parts, including a “basic intelligence pipeline,” report writing, debriefing, note taking, a foreign intelligence external program, the FBI/law enforcement course and paramilitary training, as well as a boot camp training. External surveillance courses are almost exactly the same as CIA trainings. In one course, former Delta Force operators give militia trainings such as driving and shooting, according to reports. “Usually they’ll go to that course before or after being deployed to a place like Yemen,” one of the former instructors said.

The UAE has invested greatly into news sites that propagate anti-Turkey propaganda. UAE news sites that conduct covert perception operations continue to transmit misinformation about Turkey and regional developments. Members of FETÖ’s media structure and figures closely linked to the U.S. are employed by these sites.

Abu Dhabi has sought to harm Turkey domestically and internationally by interfering in Turkey’s spheres of influence abroad.

Blackwater members in Syria trained in the UAE

UAE is also one of the biggest perpetrators in the atrocities in Syria. Mercenaries working for the American private military company Blackwater entered Syria. Hundreds of these paid soldiers entered the field before Turkish troops mobilized in the region. The UAE trained the Blackwater soldiers.

In 2010, hundreds of Colombian terrorists landed in Abu Dhabi and were taken to a camp close to the city. At the time, Blackwater was run by its founder Navy SEAL officer Erik Prince, whose close ties to former UAE President Zayed bin Sultan al Nahyan had been blasted across the media.

Turkey prevented Saudi, UAE invasion of Qatar: New Yorker

In an article titled “A Saudi prince’s quest to remake the Middle East” published in The New Yorker, Dexter Filkins says that Turkey sent troops to Qatar in response to a possible invasion by Saudi Arabia and the United Arab Emirates (UAE). “American officials concluded that M.B.S. and M.B.Z. were preparing to overthrow Qatar’s government,” it reads, referring to Saudi Arabian Crown Prince Mohammad bin Salman and UAE Crown Prince Mohammed bin Zayed. “The government of Turkey, which had a military base in the capital, sent a new detachment of soldiers,” wrote Filkins, adding that the coup plan had been approved at a summit in Riyadh. The “intention was to replace the Emir,” it continues, citing an American diplomat. Saudi, UAE coup attempt in Qatar



foiled by Turkey Turkey's Gerçek Hayat (Real Life) Magazine revealed that Turkey had prevented the coup in its Dec. 25, 2017 edition. "On the night of June 5, close to 200 specially trained Turkish forces deployed close to Qatar took action with orders from Ankara. Meanwhile, specially trained teams from Saudi Arabia and the UAE were also about to mobilize toward the same target. It was the Turkish troops who acted earlier," wrote Mehmet Acet. Saudi Arabia, Egypt, the United Arab Emirates (UAE), Bahrain and Yemen announced in June 2017 that they cut diplomatic ties with Qatar, accusing Doha of supporting terrorism, charges which Qatar denies. They also imposed a land, sea and air blockade, causing the largest diplomatic crisis in recent years. Video: Saudi, UAE coup attempt in Qatar foiled by Turkey Saudi, UAE, Bahrain planned to occupy Qatar with militias in 1996 foiled coup

Turkey's National Intelligence Organization (MIT) revealed that the U.S. had two separate training camps for the PKK/YPG in Syria.

"There are three training camps for the PKK/YPG in the region under the control of the U.S., and approximately 2,500 U.S. Special Forces personnel in these regions," the Syrian regime had said, verifying Turkey's intelligence, proving that the UAE funded terrorism and armed terrorists during this period.

UAE worried by Turkey's Afrin operation

The UAE constantly spread black propaganda during Turkey's Operation Olive Branch in Syria's northwestern Afrin. A site based in the U.K. which is backed by the UAE tried to rally the international community against Turkey.

The UAE poured millions of euros into the site for it to publish fake news and spread these on social media. The success of Turkey's ongoing operation which was launched to clear terrorists from the region, however, has rendered these efforts futile.

The Rise of Western Civilizationism

By Daniel Pipes

Source: <https://www.meforum.org/articles/2018/the-rise-of-western-civilizationism>

Apr 14 – Victor Orbán's landslide electoral victory on Sunday, gaining 134 seats out of 199 in Hungary's parliament, increases his governing supermajority and endorses his tough policy of excluding illegal immigrants, especially from the Middle East. His success dramatizes a new reality across Europe and in Australia: a novel kind of party has emerged, disturbing the political scene and arousing impassioned debate.

Examples of this phenomenon include the other three members of the Visegrád group (Poland, Czechia, and Slovakia) as well as Austria's four-month old government. [Geert Wilders](#), leader of the Party for Freedom in the Netherlands, sees western Europe following the Visegrád group: "In the Eastern part of Europe, anti-Islamification and anti-mass migration parties see a surge in popular support. Resistance is growing in the West, as well."

In France, the National Front emerged as the second strongest party in last year's presidential elections, in Italy, a muddled situation could lead to an Orbán-like government, while Cory Bernardi's Conservatives and Pauline Hanson's One Nation have made their mark on the Australian scene. Indeed, like-minded parties have quickly become a significant force in some [twenty countries](#).

An initial problem is how correctly to name them in general. The media lazily lumps these parties together as *far-right*, ignoring their frequent leftist elements, especially in economic and social policy. Calling them *nationalist* is wrong, for they neither bellow calls to arms nor raise claims to neighbors' lands. *Populist* misses the point because plenty of populist parties such as La France Insoumise (Rebellious France) pursue nearly opposite policies.

Best is to focus on their key common elements: rejecting the vast influx of immigrants and especially Muslim immigrants. Non-Muslim immigrants also cause strains, especially those from Africa, but only among Muslims does one find a program, the Islamist one, to replace Western civilization with a radically different way of life. Turned around, these parties are traditionalists with a pro-Christendom, pro-European and pro-Western outlook; they



are *civilizationist*. (This definition also has the benefit of excluding parties like the neo-Nazi Golden Dawn in Greece, that despise traditional Western civilization.)

Enlightened opinion generally reacts with horror to civilizationist parties, and not without reason, for they carry a lot of baggage. Some have dubious origins. Staffed mainly by angry political novices, they feature dismaying numbers of anti-Jewish and [anti-Muslim](#) extremists, [Nazi nostalgists](#), power-hungry cranks, economic eccentrics, historical revisionists, and conspiracy theorists. Some proffer anti-democratic, anti-

European Union, and anti-American outlooks. Far too many – and especially Orbán – have a soft spot for Russian dictator Vladimir Putin.

General election seats won by civilizationist parties in Europe.

But civilizationist parties also bring critical benefits to the political arena: realism, courage, tenacity, and a civilizational critique necessary if the West is to survive in its historic form. Therefore, contrary to many friends and allies, I favor working with most civilizationist parties, advocating critical co-operation rather than rejection and marginalization.

Four reasons drive this decision: First, civilizationist parties pose a lesser danger

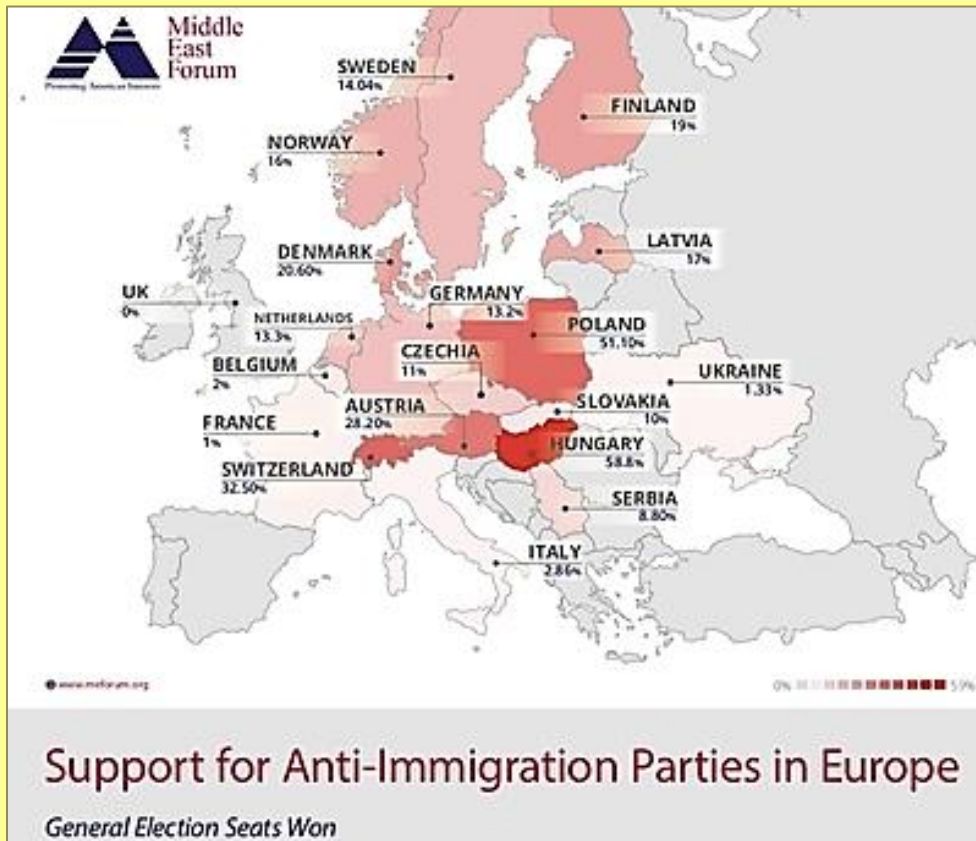
than do Islamists. They are traditionalist and defensive. They are not violent, they do not seek to overthrow the constitutional order. Their errors are correctable. Arguably, they are less dangerous even than the Establishment parties which permitted immigration and shirked Islamist challenges.

Second, they respond to political realities. The lure of power has already inspired some civilizationist parties to mature and moderate; for example, the founder of the National Front in France was expelled from his own party by his daughter due to his persistent antisemitism. This sort of evolution entails [personnel fights](#), [party divisions](#), and other drama; however inelegant, these are part of the growing process and, so, have a constructive role. As they gain governing experience, the parties will further evolve and mature.

Third, parties focused on civilizationism cannot be dismissed as ephemeral. They emerged quickly and are steadily rising in popularity because they represent a sizeable and growing body of opinion. As they relentlessly approach power; it is better they be engaged with and moderated than be reviled and alienated.

Finally, and most critically, civilizationist parties have a vital role in bringing their issues to the fore: without them, other parties usually ignore immigration and Islamist challenges. Conservative parties tend to overlook these issues, in part because their big business supporters benefit from cheap labor. Leftist parties too often promote immigration and turn a blind eye to Islamism.

To appreciate the role of civilizationist parties, contrast Great Britain and Sweden, the two European countries most lax in dealing with culturally aggressive and criminally violent forms of Islamism. Lacking such a party, these issues are not addressed in Great Britain;



immigration and Islamist inroads progress almost unimpeded. Prime ministers might provide excellent analyses, but their words lack practical consequences and problems such as the sex-grooming gangs go unaddressed.

In contrast, because Sweden's civilizationist party, the Sweden Democrats, has doubled its votes every four years since 1998, it has fundamentally altered the country's politics to the point that the country's right and left blocs have allied against it. While this maneuver successfully excluded it from power, some policy changes have already occurred and more may lie ahead, especially as a conservative party, the Moderates, has raised the hitherto inconceivable notion of [cooperating with the Sweden Democrats](#).

This points to another implication: the presence of an expanding civilizationist party pressures legacy parties of both right and left. Conservative ones, fearing the loss of voters to civilizationist parties, adopt policies to keep their support. The [Republican Party](#) in France has moved sharply in this direction, first under François Fillon and now under his successor, Laurent Wauquiez. Germany's [Free Democratic Party](#) withdrew from the "Jamaica" negotiations for this same reason. Angela Merkel may still be chancellor of Germany, but her interior minister, [Horst Seehofer](#), is doing his best to apply civilizationist policies.

Leftist parties have also begun to take note of the voters they have lost, especially those workers who tend to be economically and culturally on the front lines. The Danish Social Democrats led the way when its leader, [Mette Frederiksen](#), declared "We want to introduce a cap on the number of non-Western foreigners who can come to Denmark" and offered a detailed, if ungainly, plan. The party would set up reception centers outside Europe.



[Migrants in Budapest, Hungary, in 2015.](#)

I acknowledge their many faults, but parties focused on immigration and Islamism are essential for Europe not to become an extension of Northern Africa but to remain part of the Western civilization it created. Their raising the immigration and Islamist issues makes up for their shortcomings. This assessment leads me to urge cooperation with civilizationist parties, rather than a horrified shunning of them. In my experience, they are open to discussion and to learning; they also have something to teach. For example, Anne Marie Waters of For Britain focuses on Islamic law, or sharia, bringing new clarity to complex problems.

Returning to Viktor Orbán: despite his serious flaws as a democratic leader and an alignment with Putin, his electoral success points to a real and legitimate anxiety in Hungary about immigration and Islamization, especially in the aftermath of the 2015-16 surge in both. Orbán leads, but others are not far behind. In twenty years, I predict, civilizationist parties will likely



be widely in government; no less important, their policies will have influenced their conservative and leftist rivals. It would be folly to try to ignore or ostracize this movement; far better to temper, educate, and learn from it.

Mr. Pipes is president of the Middle East Forum.

Erdogan's Shadow Army

By Jonathan Sayer

Source: <https://www.meforum.org/articles/2018/erdogan-s-shadow-army>



Apr 13 – In the collapsed and fragmented space that comprises much of today's Middle East, the key to success increasingly lies in the ability to combine political strategy with military muscle, under a single banner and in a single structure. Examples abound.

Iran's Islamic Revolutionary Guards Corps (IRGC) are today the foremost practitioners of political and revolutionary warfare in the region. Their skills in this regard are the primary reason for the situation in which Iran today controls Lebanon, and has a dominant hand in Iraq, Syria and Yemen.

Turkey is the latest country to enter this crucial, if shadowy, field. The SADAT Defense Consultancy, founded on February 28, 2012 by former Brigadier General Adnan Tanriverdi, is Ankara's instrument in this area. Its activities are testimony both to the changing nature of the Turkish state, and to the process by which power and influence are currently built and held in the Middle East.

To understand the role that SADAT is set to play, let's first take a look at the advantages that similar structures afford the states that utilize them.

The IRGC, unlike the Iranian conventional armed forces, or 'Artesh,' is commanded by people absolutely loyal not to the state, but to the governing regime and its goals. These are 'political soldiers', notably available for mobilization both in defense of the regime at home, as well as in the furtherance of its goals abroad.

The proxy party-militia structures which the Iranian IRGC excels at creating and controlling in turn have the advantage of informality, and deniability, when compared with conventional forces. They permit Teheran to support and engage in paramilitary and terrorist activity globally – attacks on Jewish civilians in Burgas and Buenos Aires, assassination of Kurdish politicians in Vienna and Berlin etc – while continuing to take its place in the halls of diplomacy and trade as a supposedly conventional member of the 'international community.'

The IRGC remains the exemplar for this type of warfare. Other countries have been slower to develop structures able to perform a similar function. But the gaps are closing.

The Russians, predictably, have entered the game over the last half decade. Irregular 'volunteers' were the Kremlin's preferred tool for sparking the ferment in Donetsk and Lugansk Provinces of eastern Ukraine which led to the Russian conquest of these areas in 2014. Military contractors connected to Yevgeny Prigozhin's Wagner company have played a crucial role as auxiliaries and deniable ground cannon fodder for the Russians in Syria. Many of the individuals engaged with this company are themselves veterans of the fight in Ukraine.

So, to SADAT: According to its website, the company's mission is to 'establish a Defensive Collaboration and Defensive Industrial Cooperation among Islamic Countries to help Islamic World take the place where it merits among Super Powers by providing Consultancy and Training Services.'

The Turkish version of the website sounds a little less like a run of the mill private military contracting firm. Western states are described as 'imperialist', 'crusader' countries.

SADAT's founder Adnan Tanriverdi is an artillery officer who later specialized in asymmetric warfare. A former head of the Home Front Command in Northern Cyprus, he was expelled from the army because of his Islamist convictions in 1997. Tanriverdi's ties to President Recep Tayepp Erdogan and the circles of the ruling AKP are of long standing.



A recent analysis by longtime Turkey-watcher Michael Rubin for American Enterprise Institute noted eyewitness reports of armed SADAT personnel involved in the suppression of the coup attempt of July 2016. The failed coup heralded the beginning of a comprehensive attempt by the Turkish president to re-make the Turkish armed forces along lines more amenable to himself.

As part of this process, hundreds of officers dismissed for Islamist leanings are being reinstated. And as part of this process, Adnan Tanriverdi was himself appointed Chief Military Advisor to the President in late 2016.

SADAT has been heavily involved in Turkey's training of Syrian Sunni Arab rebels for the fight against Assad. The company established a number of facilities in the Marmara region for this purpose at the beginning of the Syrian war. According to a 2012 report in the oppositionist Aydinlik newspaper, at least one of these training facilities was located at a Turkish military base in the Golcuk district of Kocaeli, formerly maintained as a training center by the Turkish Navy.

The Syrian rebellion in northern Syria is today only able to survive because of the support of Turkey. SADAT has played a key role in the development and facilitation of this relationship.

Tanriverdi himself does not deny SADAT's contacts with the 'Free Syrian Army,' but in a July, 2016 article in Cumhuriyet he was quoted as noting that both the Turkish state and the US supported the Syrian opposition, and that SADAT's contacts were carried out with the knowledge of the Turkish authorities.

Of course, the term 'Free Syrian Army' is a wide one, and considerable evidence exists to suggest that elements of the Turkish state were directly offering assistance to the al-Qaeda linked Jabhat al-Nusra at certain stages during the war in Syria.

With crucial elections approaching in 2019, there are widespread fears in opposition circles that the government is training militias for use to intimidate government opponents. One opposition politician, Meral Aksener, founder and leader of the nationalist Good Party, told a leftist newspaper that SADAT was behind these training camps. The company denied the allegations.

Unsurprisingly, there is an Israel angle to SADAT's activities. In an article quoted by MEMRI, Tanriverdi described Israel as 'the outpost of the new Crusade and a dagger in the heart of Islam.' In the article, Tanriverdi envisions the equipping and training of a Palestinian conventional army which would, in partnership with a united army of Islam, defeat and destroy Israel.

Turkish academic Cemil Tekeli, was arrested in January by Israeli authorities and deported from the West Bank because of suspicions that he was assisting Hamas in money-laundering. Tekeli is a close associate of Adnan Tanriverdi, according to a report in Makor Rishon, which published a picture of the two together.

So – engagement in assisting proxies abroad, providing muscle for a repressive political strategy at home and planning war with Israel. President Erdogan is engaged, according to many, in a historic project of dismantling the republic created by Mustafa Kemal Ataturk nearly 100 years ago and replacing it with a new, Islamic entity.

This new entity will require new institutions. The shadow warriors of SADAT appear to be in the process of establishing one of the more notable of these.

Jonathan Spyer is a fellow at the Middle East Forum and a research associate at the Jerusalem Center for Strategic Studies.

The Great Distraction of Punitive Airstrikes

By Jonathan Spyer

Source: <https://www.meforum.org/articles/2018/the-great-distraction-of-punitive-airstrikes>

Apr 15 – Despite escalating worries about Russia in past weeks, the skies did not fall as a result of the American-led punitive raid on Syria's chemical weapons storage and research facilities Saturday morning. Great care was taken to avoid hitting the many sites within "Assad-controlled" Syria which are in fact administered by powers other than the Syrian dictator—namely, Russia and Iran. "A perfectly executed strike," the president [declared](#) on Twitter. "Mission accomplished." U.S. ambassador to the UN Nikki Haley struck a similar tone of



satisfaction. “If the Syrian regime uses this poisonous gas again,” she told an emergency meeting of the UN Security Council, “the United States is locked and loaded.”



A perfectly executed strike last night. Thank you to France and the United Kingdom for their wisdom and the power of their fine Military. Could not have had a better result. Mission Accomplished!

2:21 PM - Apr 14, 2018

188K 87.4K people are talking about this

A great victory, then—depending on whom you ask. Damage was done to Assad, a tyrant responsible for the deaths of an [increasingly uncountable number](#) of his own civilians. The careful planning seems to have prevented [anything but angry rhetoric](#) from Russia. And the participation of France and the United Kingdom lent at least some air of multilateralism.

But while the tactical prowess of western armed forces over Syrian air defenses was confirmed, it is not quite clear what else has been achieved. Assad will remain in power. The

humanitarian crisis persists. And arguably, the focus on checking off proportionate punishment for chemical substances represents a diversion from the issues really at stake in Syria.

U.S. and western officials were keen to note that the operation of recent days did not represent an intervention in the Syrian civil war. A “one-time shot,” Defense Secretary James Mattis [called](#) it. It may therefore be assumed that the western stance toward that war remains unchanged. Earlier this month, President Trump declared his intent to withdraw U.S. troops from Syria, “[ideally](#)” within six months. These forces are currently guaranteeing a western-aligned, Kurdish-dominated entity that controls 28 percent of Syria, including the greater part of its gas and oil assets.

If the withdrawal of these forces means that U.S. air power will also no longer be employed to keep Assad, the Iranians and the Russians out of this area, then the region will certainly be reconquered by the regime and its allies. Support for the non-jihadi rebels in the provinces of Deraa and Quneitra, meanwhile, was ended in December, and renewed regime bombardment, despite [last year's “de-escalation zone” truce](#), [began](#) in March. The removal of chlorine from the equation is unlikely to change rebels’ fate.

If U.S. withdrawal proceeds as planned, the Syrian war seems likely to end in strategic triumph for Assad, Iran, and Russia. Western allies, including Israel, are deeply concerned at what is likely to follow from a geopolitical perspective.

Iran is currently engaged in the construction of an extensive infrastructure in Syria. This includes the [establishment](#) of [permanent military bases](#). In addition, the Revolutionary Guards are supporting proxy militia forces on Syrian soil in considerable numbers, and [recruiting local “Syrian](#)

[Hizballah” type forces](#) such as Quwat al-Ridha from the Homs area, al-Ghalibun from the Sayida Zeinab area in Damascus Governorate, and the [313 Brigade](#) from the Deraa area.

The Iranians have helped create and train multiple “Syrian Hizballah” groups such as al-Ghalibun.

Tehran seems to intend to extend this structure to the area immediately east of Quneitra Crossing and the Golan Heights, in order that it may serve as a tool of pressure and potential aggression against Israel. Currently, the enclave controlled by the U.S. and its allies—including the non-Islamist

rebel-controlled enclave in Deraa, which birthed the Syrian revolt—blocks Iran’s ability to develop the contiguous land corridor it seeks to extend all the way from the Iraq-Iran border.

U.S. withdrawal of support for these areas, and their subsequent collapse, would mean that Israel would be facing this advance alone—a scenario which has already [sparked concern](#) in Israeli media.

Israeli officials have made clear that the entrenchment of this Iranian project and its extension to the border are utterly unacceptable to Jerusalem. The [large-scale raid](#) last



week on the T4 base outside Palmyra, in which seven Iranian personnel including a colonel were killed, was an indication of the direction of Israeli policy. As Defense Minister Avigdor Lieberman stated following this operation, “Accepting Iranian entrenchment in Syria would be to accept Iranians putting a chokehold on us. We cannot allow that.”

In other words, although the U.S. and Russia appear to have avoided conflict over Syria, the current strategy seems almost guaranteed to leave Iran and Israel on a collision course. When the current western barriers to Iranian advancement are removed, Iran and its allies will finish off the rebel and Kurd forces that remain. Thus consolidated, Iran will then be the dominant actor in a giant land area stretching from the Iraq-Iran border to the Mediterranean Sea and the Syrian border with Israel. Israel will at this point seek Russian assurances to curb a further Iranian advance—which it is unlikely to get. What happens after that is the stuff of strategists’ nightmares.

When seen from this point of view, the destruction of a number of Assad’s chemical weapons research facilities might be seen as at best a diversion from the main point. Not only Syria’s humanitarian nightmare, but also the practical geopolitical problems, remain unchanged.

Jonathan Spyer is a fellow at the Middle East Forum and a research associate at the Jerusalem Institute for Strategic Studies (JISS). He is the author of Days of the Fall: A Reporter’s Journey in the Syria and Iraq Wars.

Assad's Cousin Living in Europe Amid Western Strikes: Nobody Cares About Syrians

Source: <https://sputniknews.com/middleeast/201804161063602535-assad-cousin-strikes-syria/>

Apr 16 – In an exclusive interview with bTV, Ribal al-Assad has expressed his views on the latest reports about the alleged chemical attack in Douma in Eastern Ghouta, which triggered a massive wave of airstrikes against Syria, carried out jointly by the United States, France and the United Kingdom.

Bashar al-Assad’s cousin, who has been one of the most vocal critics of the Syrian government, has told Bulgarian bTV that he doesn’t believe that Damascus was behind the chemical attacks in the country.

“I condemn what is happening in Syria, i.e. the chemical attack, but it is very important, however, to have a full and independent investigation, it is essential to find out who... had used the chemical weapons. ... But I am against the conflict in the way it is evolving,” he said.

According to him, both militants groups, operating in Syria, and the Syrian authorities had access to chemical weapons.

“Both sides have the capacity to launch a chemical attack. **In 2013, 12 members of Nusra Front were arrested in Turkey for carrying 2 kg of nerve agents.**”

A UN report by Carla Del Ponte was published the same year: She was investigating the developments in Syria and reported that the terrorists had a chance to use the chemical weapons in Syria. If you remember, she retired, having expressed her indignation over the actions of the horrible regime, as well as those of terrorists and extremists, on the other hand. I don’t believe that Bashar Assad has a key role [in this situation],” Ribal stated.

At the same time, Bashar’s cousin said that nobody “cared about the Syrian people,” explaining that no one had been concerned over their fate for the past five years before the alleged chemical attack drew attention to the plight in the city of Douma.

Ribal Assad, who has been living in exile in several Western countries, is the founder and director of the Organization for Democracy and Freedom in Syria. Following an attempted coup d’état by Ribal’s father, Rifaat al-Assad, who used to be the commander



of Syria's defense forces in the 1970s and 1980s during the tenure of Hafez al-Assad, Bashar's father, the family had to flee to France.

On April 14, [the United States, France and the UK fired over 100 missiles at Syria](#) in response to the purported chemical attack in the town of Douma, allegedly carried out by [President Assad's forces](#); most of the rockets were intercepted by the Syrian air defense forces. Damascus has condemned the attack as an act of "aggression," with Bashar Assad insisting that the trilateral strikes would only boost the country's resolve to "fight and crush terrorism in every inch."

A week prior to the strikes, some media outlets reported, citing militants, that the Assad forces had dropped a chlorine bomb on civilians in Douma, with [the White Helmets providing footage of the aftermath of the alleged attack](#). The US and the EU have rushed to accuse President Assad of using chemical weapons, while Russia has called for a fair investigation before drawing any conclusions. The Syrian government, for its part, has strongly denied those claims, insisting that the attack was staged by terrorists.

Back in 2016, CIA director John Brennan revealed [in an interview](#) that Daesh had the "ability to manufacture small quantities of chlorine and mustard gas," and said that there were a "number of instances where ISIL [Daesh] had used chemical munitions on the battlefield." Later, in 2017, Brennan's words were confirmed by the Organization for the Prohibition of Chemical Weapons (OPCW), which holds Daesh accountable for the use of sulfur mustard gas in the Syrian village of Maarat Umm Hawsh in Aleppo in 2016.

Safe at last! Christian woman who spent three years as an ISIS sex slave after being captured in Iraq is reunited with her father after charity BOUGHT HER for £20,000

Source: <http://www.dailymail.co.uk/news/article-5621671/Christian-woman-reunited-father-three-years-sex-slavery-ISIS.html>

Apr 16 – A Christian woman kidnapped and used as a sex slave by ISIS was saved by a rescue team posing as jihadists who bought her back for £20,000.

Rita Habib, 30, was captured in northern Iraq three years ago, marking the beginning of her horrific ordeal. Raped by numerous men, all of whom had wives and children, Ms Habib was sold from one member of the extremist network to another in an endless cycle of abuse.

But she has now been reunited with her father after the fifth person to buy her handed her back to her family in a courageous rescue that could have killed him.



Ms Habib told Kurdistan 24: 'They did evil things to us. They beat us and raped us.'

'The worst of all was girls aged nine who were raped. Girls would be sold for 4,000 to 15,000 dollars.'

An only child with a widowed father, Ms Habib had travelled to Turkey in 2014 to try to register them both for asylum as ISIS stormed the Middle East.

But by the time she returned in August with the documents they needed, ISIS had fought their way into the town of Qaraqosh in northern Iraq.

Families were separated and Ms Habib was taken to Mosul, where she was told she would be used for prisoner exchanges.

Instead, she was bought by an Iraqi man and held for 18 months before being sold on to two Saudi Arabians in Raqqa and then a Syrian man.

It was then that two men from the Shlama Foundation, an Iraqi Christian group, stepped in pretending to be jihadists wanting to buy a sex slave.



They were reportedly alerted to Ms Habib's situation by her father who had also been captured in Qaraqosh and later freed.

The pair paid £20,000 to buy her, as well as purchasing a Yazidi woman she was being held with - a move which, if discovered, would have seen the rescuers killed.

For days afterwards, Ms Habib and her fellow captive were unaware they would be leaving the violence and abuse which had marred their lives for years.

But when the Yazidi woman asked what was happening, one of the men told them: 'We are not ISIS. We have been paid to bring you home.'

'We are trying to find a way to save you.'

Ms Habib spent four months in a women's refuge, then last week she met her father in Arbil, Iraqi Kurdistan, in a tearful reunion.



Following destruction of Hamas terror tunnel, Israel reveals secret of underground defense

Source: <http://www.homelandsecuritynewswire.com/dr20180417-following-destruction-of-hamas-terror-tunnel-israel-reveals-secret-of-underground-defense>



US Ambassador to the UN Nikki Haley tours a terror tunnel built by Hamas on the border of Israel with the Gaza Strip, June 8, 2017. (Matty Stern/US Embassy Tel Aviv)

Apr 17 – Following the discovery and destruction of the longest and deepest terror tunnel extending into Israeli territory, over the weekend, the IDF revealed a new “laboratory,” where it employs advanced technology to detect tunnels, the *Times of Israel* [reported](#) Sunday. The tunnel was the fifth detected and destroyed in recent months.



The laboratory, which is run by Captain B, who has a background in both electrical engineering and chemistry, has been responsible for locating and destroying five terror tunnels in recent months.

The most recently discovered tunnel was deemed “ready for use” by the IDF, and because it was part of a system of tunnels, potentially could have been used by a large number of terrorists to infiltrate Israel, according to an Israeli news report.

Some military sources hypothesized that the recent Hamas-led riots in the area were orchestrated to divert attention from the tunnels, reflecting the terror group’s complete military and political control of Gaza. According to the news report, Hamas, has switched to riots following the successful deployment of Iron Dome to negate the threat of rockets, and the laboratory, which has been thwarting Hamas’s attempts to launch an underground raid against Israel.

The IDF plans to have sensors deployed all around the perimeter of Gaza by the end of next year. Israel’s defense system to protect against infiltrations from Gaza, which will include both above ground and underground barriers, is estimated to cost some \$3.5 billion.

While the laboratory doesn’t “offer any kind of X-ray” allowing the IDF to see everything Hamas is building underground, the technologies employed continue to improve. According to the television report, just as Iron Dome is a lot more effective now than when it was first deployed, Israel’s tunnel defense is much-improved since it was first instituted two years ago.

Former Defense Minister Moshe Ya’alon said that Israel is now the “world leader” in defending borders. The United States has even invested \$120 million in Israeli technology to detect underground activity to protect the border with Mexico.

The recently destroyed tunnel was detected using new technologies developed at the laboratory to combat terror tunnels.



“This was clearly a terror tunnel that connected to other tunnels in the Gaza Strip,” IDF Spokesperson Lt. Col. Jonathan Conricus said. “It extended into Israel and violated Israeli sovereignty.”

The army had been monitoring the tunnel system and decided to act when the tunnel crossed into Israeli territory, “tens of meters” from the southern Israeli community of Nahal Oz. The Hamas tunnel diggers were attempting to construct an exit to the tunnel when the IDF destroyed it.

“The violent riots that have been taking place in the area of the security fence are an attempt to mask the terror attacks intended to take place above & below ground,” the IDF Spokesperson [tweeted](#).





Google **BARNEVERNET** and prepare for a surprise!

The Fall of the Norwegian Trump

Source: <https://jacobinmag.com/2018/04/norway-far-right-sylvi-listhaug-immigration>

Apr 21 – The last time Norway caught the attention of the international media, it was because Donald Trump remarked that more immigrants should come to the US from countries like Norway and less from “shithole” places. That prompted a string of jokes and jibes about [Norway being the whitest country in the world](#), a perfect fantasy for a racist president.

How white Norway actually is depends on how you define it, but race, immigration, and “cultural preservation” have indeed stirred things up in this small country. Last month it culminated in the dismissal of Minister of Justice [Sylvi Listhaug](#), who both supporters and detractors have compared to [Trump](#).

But what actually happened? And how big of a blow was it to right-wing populism?

The Norwegian Right

Listhaug belongs to the Progress Party (FrP), a right-wing history of dog-whistling and blatant racism that has been in since 2013 with the conservative-right party Høyre.

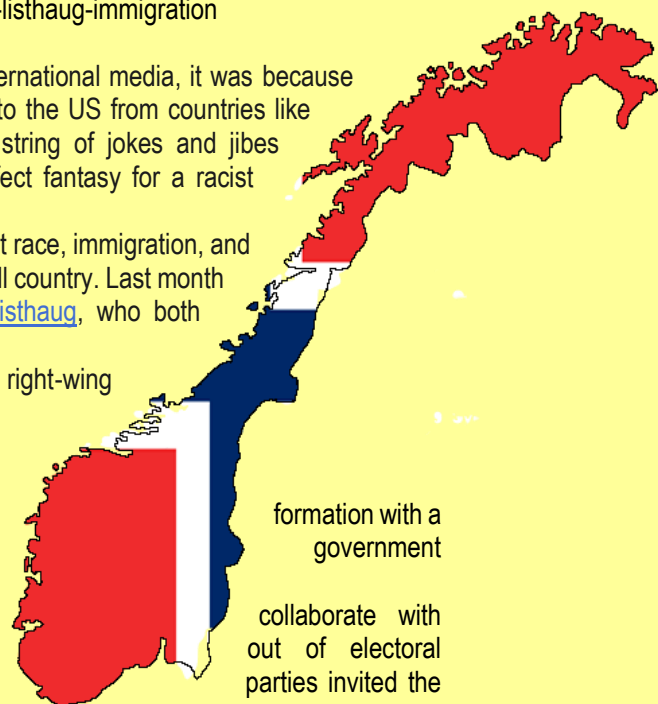
For a long time the Norwegian establishment refused to the FrP, seeing it as too extreme. They changed their mind expediency. Needing votes to secure a majority, right-wing FrP into the mainstream tent and welcomed their collaboration.

Since then, mainstream right parties have assured the public that the Norwegian populist right is not like it is in others parts of Europe — it's milder and moderate, less historically noxious. While the [Sweden Democrats have an outright Nazi past](#), the FrP's roots are in an anti-tax liberal party.

Yet it might be fair to ask if we have not been fooling ourselves that we have the cleanest oil, the nicest fjords, and the sweetest far-right politicians on the continent. It's been just thirty years since Carl I Hagen, the leader of the FrP at the time, [forged a letter from a Muslim living in Norway](#) and used it to claim that Islam was taking over the country. In the decades since, the FrP's bread and butter has been pushing anti-immigrant policies and stoking anti-Muslim fear. The two leaders throughout those years, Hagen and Siv Jensen, have been known for their bigoted statements.

And then Sylvi Listhaug came along.

Listhaug became city commissioner (byråd) of welfare and social services in Oslo in 2006, where she pressed for more competition and more private-sector involvement in government. After working for a consulting firm, she then entered the right-wing coalition government in 2013 as minister of agriculture and food. While still largely unknown, she stirred controversy and fear among farmers for her statements in 2010 that Norway's agricultural policy was a “communist system.”



Gradually she grew into the party's political star and the country's most vocal anti-immigrant politician. During the European "migrant crisis" in 2015, she raged against the "tyranny of goodness": reasonable people who simply wanted stricter immigration policies were being labeled heartless and racist by "tyrants of good," who used their self-appointed positions as moral commissioners to shut down debate about the consequences of immigration.



Then that December, Lister-Jones was appointed to a newly created cabinet position: minister of immigration and integration. It was both shocking and expected. Shocking because the conservative right, who claimed to be moderate, chose the most prominent anti-immigrant voice as minister of immigration. And expected because the FrP's had netted 16 percent of the votes when they joined the coalition. They were strong enough to get what they wanted, and they wanted Lister-Jones in charge of immigration and a platform to spread the party's views. Lister-Jones quickly made the best of it. Shortly after she stepped into the new position, in late December 2015, Lister-Jones vowed to make Norway's asylum policies "one of the strictest in Europe."

Since then Lister-Jones has been the hero of the Norwegian far right, a provocateur adept at trolling the Left and liberal media. In one stunt that received international attention — and prompted John Oliver to label her "[perhaps the most Norwegian-looking human being that has ever lived](#)" — Lister-Jones tested "how it is to be a migrant" by floating in a wet suit in the Mediterranean. During last year's election campaign, she claimed that the leader of the Christian Democrats, Knut Arild Hareide, "and other politicians" were licking the backsides of Muslim clergymen. The Right won the contest, and in the new cabinet she received a new appointment: minister of justice, public security and immigration. On election night, the far-left party [Rødt](#), which won parliamentary representation for the first time, vowed they would kick her out of office.



Lindos – Rhodes Island, Greece





CHEM NEWS



Mustard gas – from the Great War to frontline chemotherapy

Source: <http://scienceblog.cancerresearchuk.org/2014/08/27/mustard-gas-from-the-great-war-to-frontline-chemotherapy/>

One hundred years ago a great conflict began that would change the world forever. [World War I](#), also known as the Great War, would leave 17 million people dead or missing in action. Stuck in the squalid conditions of the trenches, it was a living hell for those on the front line.

But it was made even worse by the work of industrial chemists.

In [July 1917, troops based in Ypres, Belgium](#), reported a shimmering cloud around their feet and a strange peppery smell in the air. Within 24 hours they started to itch uncontrollably and developed horrific blisters and sores. Some started coughing up blood.

They'd been poisoned by [mustard gas](#) – one of the most deadly chemical weapons deployed in battle.

And because mustard gas can be absorbed through the skin, gas masks were useless. Even fully clothed soldiers weren't fully protected. It could take up to six weeks to die from mustard gas, and it was a terrible way to die.

Towards the end of the Great War, this gas had not only killed and crippled but instilled terror across the battlefield. The first use in Ypres alone left up to 10,000 people dead, with many more injured.

Mustard gas was one of a number of weaponised poison gases developed by [Fritz Haber](#), a Professor at the prestigious [University of Karlsruhe](#). Haber was a brilliant chemist, who invented a process for the industrial scale production of ammonia-based fertiliser. This brilliant discovery, known as the [Haber process](#), played a huge role in avoiding worldwide famines and now feeds about a third of the world's population. It won him the Nobel Prize in Chemistry in 1918.

But Haber's role in chemical weapons' development means his legacy will always have its dark side.

Even after the war, Haber enthusiastically promoted the use of poison gas. And his colleagues would go on to make other deadly gases – World War I is known to some as the chemists' war.

But the story of mustard gas didn't end there. And it has a brighter ending than you might think.

"In the middle of difficulty lies opportunity" - Einstein

Two decades later, with World War II looming, researchers on the side of the Allied Forces feared a repeat of the mustard gas attacks of the Great War. So they tried to create antidotes.

What they discovered led them into a very different battle.

Two doctors at [Yale University, Louis Goodman and Alfred Gilman](#), delved into the medical records of soldiers affected by mustard gas, and noticed that many of them had a surprisingly low number of immune cells in their blood – cells that, if mutated, can go on to develop into [leukaemia](#) and [lymphoma](#).

Goodman and Gilman hypothesised that if mustard gas could destroy normal white blood cells, it seemed likely that it could also destroy cancerous ones.

After successful animal trials, Goodman and Gilman looked for a human volunteer with white blood cell cancer to test mustard gas as a cancer therapy. They found a patient with advanced lymphoma, known today only by his initials: J.D.

A massive tumour on J.D.'s jaw meant he couldn't swallow or sleep – he couldn't even fold his arms across his chest because the tumours in the lymph nodes in his armpits were so big. He was encased, front and back, by cancer. His doctors tried everything they could, but his outlook was considered hopeless.

With nowhere else to turn, J.D. agreed to try the new experimental drug. At [10am on the 27th of August 1942](#) he was given the first injection of what they called "synthetic lymphocidal chemical". This was in fact nitrogen mustard, the compound used to make mustard gas. Because of the war, J.D.'s treatment was a secret and it was referred to in his records only as "substance X".

He received a number of treatments with substance X and with each one he became a little better. He could sleep, he could swallow and he could eat. He was much more comfortable and the pain faded away.

This was a monumental moment in the history of medicine. It was the beginning of what we now know as [chemotherapy](#).

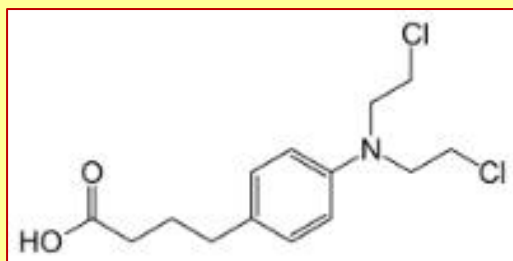


Mustard gas to modern medicine

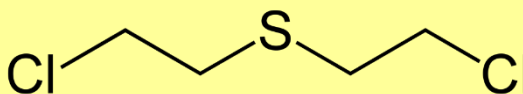
Back in the UK and after WWII, another brilliant chemist, [Professor Alexander Haddow](#), became Director of the Chester Beatty Research Institute – an Institute funded by one of the founding charities that [merged](#) to form Cancer Research UK. He was working on compounds that could block the growth of tumours and treat cancer.

All he needed to make a breakthrough in cancer treatment was a lead – an effective molecule to start from. Mustard gas gave him that much needed and crucial starting point.

In 1948, Haddow published [a ground-breaking piece of research](#) in the journal *Nature*, showing exactly which bits of the nitrogen mustard molecule were needed to kill cancer cells. Perhaps more importantly, he also found out how to make the chemical less toxic, but with more potent cancer-killing activity.



The molecular structure of chlorambucil – sulfur mustard is below



Haddow began by showing that nitrogen mustards could stop the growth of tumours in rats. Then in experiments akin to tinkering with Lego, he altered bits of the molecule, replacing them with different 'bricks'. Replacing certain bits, in particular either of two chlorine atoms, rendered the molecule useless and it no longer blocked tumour growth in his rats.

This was an important finding, showing that the molecule needed both chlorine atoms to work. And replacing certain other parts of the molecule altered its activity too. Through this molecular puzzle Haddow worked out which pieces were needed to make a treatment that would benefit cancer patients across the globe.

He continued his research, showing how these chemicals actually worked – it was by somehow linking together other molecules inside the cancer cell, ultimately leading the cell on a suicidal path. [Other researchers then went on to show](#) that these linked molecules were in fact strands of DNA. This triggered the cell's self-destruct mechanism – causing the cell to shut down and break apart, destroying it.

The future is changing

And so mustard gas went from the very real battleground of the WWI trenches into the frontline of cancer treatment. But for J.D, the treatment came too late. Although it worked initially, giving him an immensely important extra few months with less pain and greater comfort, he lost his life six months after his experimental treatment was started. There is just one entry in his medical records from the 1st of December 1942. It simply says "Died". J.D passed away unaware of the impact that his life and death would go on to have.

But Haddow's subsequent work launched the start of a new era of cancer treatment – [chemotherapy](#). All of the drugs that followed worked in the same basic way as Haddow described. And in fact, nitrogen mustard derived chemotherapy is still used to treat some cancers today.

The chemical structure Haddow published is only a few atoms away from the structure of the drug [chlorambucil](#), which is still used to treat a type of leukaemia called [chronic lymphocytic leukaemia](#) and another blood cancer called [non-Hodgkin lymphoma](#) (NHL). Survival from NHL [has nearly trebled](#) since the early 1970s and now over 60 per cent of people survive for at least 10 years, thanks in part to this drug. And work continues on these sorts of treatments to make them kinder, with fewer side effects.

Haddow's research led to the development of more chemotherapy treatments that have completely changed the outlook for other types of cancer. Cisplatin and [carboplatin](#) work in a similar way to the nitrogen mustards. [Cisplatin](#) even has two critical chlorine atoms, the same as mustard gas. And it's largely responsible for the fact that [96 per cent of men with testicular cancer now survive the disease](#) long term.



But chemotherapy is just one of the ways we treat cancer at the moment. And anyone who's been through it knows that, despite decades of evolution away from the trenches, chemotherapy is still, for many, a very difficult and unpleasant experience.

So we have developed, and will continue to develop, more and more [targeted treatments](#) designed to pick out specific cancer targets – like a sniper selecting precisely who to 'take out'. And [immunotherapies](#) – designed to switch on our own defences against cancer – acting like the Black Ops of cancer treatment. But for now there's still a place for chemotherapy – one of the first chemical weapons in our ever-growing arsenal against cancer.

Reference: HADDOW, A., KON, G., & ROSS, W. (1948). *Effects upon tumours of Various Haloalkylaryl amines* *Nature*, 162 (4125), 824-825 DOI: [10.1038/162824a0](https://doi.org/10.1038/162824a0)

Salisbury nerve agent attack: Britain divulged 'unprecedented levels of intelligence' to convince other countries that Russia carried out attack

Source: <https://www.independent.co.uk/news/uk/home-news/salisbury-nerve-agent-attack-spy-intelligence-information-russia-a8276776.html>

Mar 27 – Britain divulged “unprecedented levels of intelligence” to other countries in order to convince them that [Vladimir Putin](#)'s Russia had carried out the first nerve agent attack in Europe since the [Second World War](#).

The material provided to the allies included sensitive reports and the conclusions of the military research base at [Porton Down](#), as well as explanation of how these were obtained. The information, senior government officials hold, was key to 23 states and [Nato](#) carrying out a mass expulsion this week of over a hundred Russians working under diplomatic credentials. Highly classified information which is normally shared only between the “Five Eyes” countries – UK, US, Australia, New Zealand and Canada – was supplied to close allies with national security adviser, Sir Mark Sedwill, taking it to the European Union and the North Atlantic Council. Other countries were given differing levels of intelligence to show alleged Russian culpability. [Jeremy Corbyn](#), who attracted controversy by asking for more proof of Russia's responsibility for the attempted assassinations, was, as a privy councillor, shown the same intelligence as supplied to the allied states and also the UK's National Security council.

“We have” acknowledged a senior Whitehall official, “shared unprecedented levels of intelligence with partners.” The information from UK was deliberately shared with policy makers rather than just security chiefs abroad to “show there was no other plausible explanation for

responsibility other than the Russian state”. At the same time there was a concerted diplomatic offensive by embassies abroad.

Not all countries provided with the intelligence have kicked out Russian diplomats. Unlike the others in the “Five Eyes” network, [New Zealand](#) refused to take similar action with [Jacinda Ardern](#), the prime minister, saying: “We have done a check in New Zealand. We don't have Russian undeclared intelligence officers. If we did, we would expel them.”

The details of the mission to form an international coalition, following the [Salisbury poisoning](#) of former Russian spy [Sergei Skripal](#) and his daughter Yulia, came on the eve of the launch of the National Security Capability Review (NSCR). No “fundamental changes” have taken part to the report of the Review following the Salisbury attack. But what happened, insisted a Whitehall official, “proved we were right “about the threat posed by the Kremlin.

The Review will say that as well as state sponsored terrorism, “we expect the threat from Islamist terrorism to remain at its current heightened level for at least two years and it might increase further.” [Isis](#) may be losing on the battlefield, it will point out, but remains capable of launching attacks in Europe while other Islamist groups such as



[Jabhat al-Nusra](#) (also known as Jabhat Fateh al-Sham) in the Middle East and [al Shabaab](#) in East Africa remain active.

The Capability Review, a follow up from the 2015 Strategic Defence and Security Review (SDSR), is designed, it is claimed, to provide a comprehensive new approach – “Fusion Doctrine” - which will bring together all aspects of security from “soft power”, such as the use of aid and promotion of culture, to propaganda, cyber warfare and the armed forces.

However [Gavin Williamson](#), the new defence secretary, has succeeded in extracting defence from the NSCR, creating yet another review, the “Modernising Defence Programme” which will take place in the future. Critics claimed the

separation was damaging to a comprehensive security strategy and had taken place purely because of the political ambitions of Mr Williamson who is said to want to succeed Theresa May.

Former National Security Adviser Lord Ricketts commented recently: “I can imagine the politics behind it but I think it’s a backward step to separate defence from other national security issues.” Robert Hannigan, the former GCHQ chief, agreed. “Pulling it apart now doesn’t seem very coherent,” he said. “Cyber is a perfect example of why it doesn’t work to do it separately ; it cuts right across public safety, security, intelligence through to defence and it is quite hard to see how you break it up.”

EDITOR’S COMMENT: OK – we do not expect the chemical formula but can we have some concrete information about the agent dispersed – especially the form of the chemical. Why only to some countries in Europe/EU and not to all? Greece and Cyprus did not expelled Russian diplomats. Let’s hope that a leak will appear soon in our screens – a real one

Training first responders for the challenges of nerve agent attacks

By Steven Pike

Source: <http://www.argonelectronics.com/blog/training-first-responders-for-the-challenges-of-nerve-agent-attacks>



Mar 15 – As the recent Chemical Warfare Agent (CWA) attack in Salisbury, United Kingdom, has demonstrated all too clearly, the deliberate use of toxic substances as a weapon of terror, presents a risk not only to the intended victim or victims but to the public at large and to the specially trained hazmat safety teams charged with responding to the incident.

The challenge for first responders in such scenarios is to be able to recognize the signs and symptoms of a deliberate act of chemical warfare, to neutralize and dispose of the threat and to make the area safe - a process that requires balancing with the need to preserve evidence.



In this blog post we explore the characteristics of the nerve agent [Novichok](#) that has been identified as the CWA used in the Sergei and Yulia Skripal attack on 4 March 2018.

We also discuss the role that realistic hazmat safety training scenarios can play in preparing first responders for the unique dangers of similar incidents involving CWAs.

Understanding nerve agents

The toxic component of any chemical weapon is referred to as its “chemical agent.” Different forms of CWA are commonly divided into several categories (such as choking, blister, blood, nerve and riot control agents) based on their mode of action, the means by which they penetrate and their effect on the human body.

Nerve agents are highly toxic and fast acting, and are so-named due to the way in which they affect the transmission of nerve impulses in the nervous system.

They commonly enter the body through the respiratory tract, although they can also be absorbed through the eyes or skin, as the Organisation for the Prevention of Chemical Weapons website, explains:

“All nerve agents belong chemically to the group of organo-phosphorus compounds. They are stable and easily dispersed, highly toxic and have rapid effects both when absorbed through the skin and via respiration. Nerve agents can be manufactured by means of fairly simple chemical techniques. The raw materials are inexpensive and generally readily available.”

An overview of Novichok

The UK's [Defence Science and Technology Laboratory](#) (DSTL) has identified the CWA used in the Salisbury attack as Novichok.

Novichok, which translates literally as “newcomer” in Russian, forms part of a group of “fourth generation chemical weapons” that were developed in the former Soviet Union in the 1970s and 1980s.

These highly toxic agents can exist in a variety of forms - some liquid and some solid / powder - and can take as little as thirty seconds to take effect, depending on the route of absorption.

Some of the agents are also designed to work as binary weapons, which means that the agent is stored as two separate, and less toxic, ingredients, which only achieve full effect when they are combined. This means that the agents can be more easily handled, transported and stored - and can more readily escape detection.

The symptoms of Novichok are thought to be very similar to other nerve agents - including raised dilated pupils, profuse sweating, decreased heart rate, nausea, vomiting, convulsions, respiratory failure, coma, cardiac arrest or death.

It's also believed that some Novichok variants have been specifically designed to withstand nerve agent antidotes.



Training and safeguarding for chemical warfare first response

While deliberate acts of aggression using toxic chemical substances are rare, it is vital that those tasked with first response and hazmat safety are equipped with the knowledge and skills to handle such an incident.

As hazmat safety instructors seek out realistic, engaging and cost-effective training solutions, the use of simulator chemical detectors can have a vital role to play.

[Electronic simulator detectors](#) can be invaluable in preparing military crews, first responders and law enforcement personnel with the hands-on experience of identifying and responding to a deliberate chemical release. One such example is the [LCD3.3-SIM](#), which accurately replicates the appearance and functionality of the LCD3.3 but which responds instead to safe electronic sources to represent the chemical threat.

The LCD3.3-SIM simulate the effects of toxic industrial chemicals (TICs) and nerve, blister, blood and choking agents, without any health and safety risk to trainees or their instructors.



And by removing the need to rely on chemical simulants (which are harmful to individuals and the environment in even the smallest of quantities) it's possible to set up realistic hazmat safety training scenarios in any location - both indoors or outdoors and within public buildings.



[Ease of set up](#) is a key factor in any training exercise, and with the use of chemical simulators for CBRNe/WMD/Hazmat exercises, set-up time is kept to a minimum - usually less than ten minutes. Crucially too, working with an electronic source also ensures there is no risk of the scenario changing between the time of set up and when the training exercise begins.

The ability to be able to identify and record student error is another feature which can prove invaluable for effective learning outcomes. If for example, a trainee hasn't followed the correct set up procedures, then the simulator recognizes and records this information for After Action Review (AAR.)

For many hazmat instructors, the ability to be able to carry out multi-detector, multi-substance training with the same scenario can also be hugely beneficial for trainees.

With this need in mind, the LCD3.3-SIM is also compatible with a wide variety of SIM products including the [AP2C-SIM](#), [AP4C-SIM](#), [CAMSIM](#), and [RAID-M100-SIM](#). It can also be used in conjunction with the Argon [PlumeSIM system](#), in the carrying out of table-top

CBRNe training exercises and instrumented wide-area field exercises.

Realistic, hands-on scenarios offer many advantages for hazmat safety training in preparing crews for the unique challenges of live chemical incidents, be they accidental or deliberate. And, as such, the use of simulator detectors in training scenarios can make an invaluable contribution to trainees' confidence, expertise and operational readiness.



Open Letter to Mr Alexander Yakovenko, Russian Ambassador to the UK

By John Andrews

Source: <https://dissidentvoice.org/2018/03/open-letter-to-mr-alexander-yakovenko-russian-ambassador-to-the-uk/>

Dear Mr Yakovenko,

I would just like to express my sincere dismay at the way my government reacted to the alleged recent poisoning of two people in Salisbury.

I recall very well the events that occurred fifteen years ago, when the British parliament was lied to about alleged weapons of mass destruction, supposedly held by Iraq, and which supposedly could strike at Britain within forty minutes. These allegations went almost completely unchallenged by the mainstream media, and our country was subsequently tricked into supporting an illegal war in Iraq. Although many people never believed the propaganda – as evidenced by the million or so protesters who marched through the streets of London at the time resisting the drive to war – the lie prevailed.

At this moment in time we have seen no verifiable evidence for the events that allegedly took place in Salisbury a couple of weeks ago. Until that evidence is forthcoming, and remembering well the deceit my own government has used in the past for its own very questionable ends, I refuse to believe that Russia had anything to do with it, and want to assure you that in this, as in many other areas of government policy, my government does not speak for me.

Neither am I impressed by the unbelievable actions of so many other countries in their expulsion of Russian diplomats from their embassies. Given the fact that there appears to be no verifiable evidence for the Salisbury incident, these actions by other countries defy



logic, and strongly suggest some dark conspiracy that's unfolding. The total abdication of responsibility of the mainstream media in their supposedly first duty of "holding government to account", by refusing to question and challenge their actions, is yet further proof of the media's culpability in these events – just as they were similarly culpable for the Iraq debacle of 2003.

I find the behaviour of my government in this matter completely inexcusable, and the public statements of certain of its representatives highly offensive and shameful. At this moment in time, none of them speak for me, and I do not trust a single word our mainstream media has to say on the matter.

Yours sincerely,

John Andrews
March 31, 2018

John Andrews is a writer and political activist based in England. His latest booklet is entitled [EnMo Economics](#). Other Non Fiction books by John are: [The School of Kindness](#); [The People's Constitution](#); and his fiction novel: [The Road to Emily Bay](#). [Read other articles by John](#).

After London, How Lasers Will Play a Role in Detecting Chemical Attacks Sooner

By Patrick Tucker

Source: <http://www.defenseone.com/technology/2018/03/after-london-how-lasers-will-play-role-detecting-chemical-attacks-sooner/147109/>



Mar 30 – **A new technique can detect trace elements of dangerous chemicals in extremely small doses**, a breakthrough of relevance to the horror show playing out in Salisbury, U.K.

The recent assassination attempt against a former Russian double-agent spy just outside of London shows that chemical weapons aren't just a concern in war zones. They're invading streets in major cities. Just in time, **a new laser technique can detect even trace amounts of chemical weapons** in the air long before they show up in blood tests or on the evening news.

Konstantin Vodopyanov, a University of Florida researcher, and his colleagues, have developed a method for finding chemical molecules in extremely low doses, similar to the low doses of the nerve agent Novichok that attackers used against former Russian colonel and double agent Sergei Skripal and his daughter, Yulia, as well as a British police officer responding to the Skripals' state of emergency.

The method uses two mid-infrared lasers operating at very similar repetition rates, sometimes called dual-comb spectroscopy to essentially sweep the air. Chemical molecules vibrate at optical frequencies as distinct as a fingerprint. When the infrared laser encounters specific molecules, the vibrations affect those frequencies of the laser that are in resonance with the molecular vibrations in a way that speaks to exactly what sort of molecule, thus



chemical, is causing the disruption. **Vodopyanov's discovery is in the family of what's known as dual-comb spectroscopy, dual here meaning with two lasers and spectroscopy referring to the study of how matter and radiation interact.** Their paper was published this week in the journal [Nature Photonics](#).

The U.S. military and other national security outfits have been looking to deploy lasers for chemical weapons detection [for years](#). But Vodopyanov's breakthrough represents an important leap forward in detecting chemical agents in smaller amounts, faster, and easier. The technique is sensitive enough to detect some chemicals at one part per billion. That would be like detecting a single drop of some chemical in a 12,000 gallon tank, or so. Right now the laser is about one square meter in size, but, says Vodopyanov, it could be made much smaller.

And yes, you could use it detect Novichok, he says, but "we need to know the spectral signature of Novichok (like, e.g., spectral signatures for sarin... that are known.)"

Exactly where and when the victims were poisoned keeps changing. Authorities in the [Skrpal](#) case reportedly now believe that the attackers poisoned Skripal at home. But a [week ago](#), the working theory held that someone had put an aerosolized version of Novichok in the ventilation system of Skripal's BMW 320D. Prior that, [detectives told](#) the British *Telegram* newspaper that they believed that someone had put the chemical in Yulia's luggage before she left Russia to go to the United Kingdom. The theory seemed to move depending on where detectives were finding new traces of the nerve agent. Observing chemical attacks as early as possible is essential to not only limit their spread but also to cut down on bad theories and investigatory dead ends.

Both the British and U.S. governments have said that the likely culprit is the government of Vladimir Putin, a charge the Russian government has denied. Vodopyanov said scientists or possibly emergency crews "potentially" could use his technique to detect a chemical's source (presuming you had spectroscopic data linking a particular chemical to a specific point of origin) but that he had not yet tried that.

"Our ... platform can be used in various fields, such as medical breath analysis, study of the chemical reaction dynamics, atmospheric science, and in the search for traces of life in interplanetary missions" the authors said.

Patrick Tucker is technology editor for Defense One. He's also the author of [The Naked Future: What Happens in a World That Anticipates Your Every Move?](#) (Current, 2014). Previously, Tucker was deputy editor for The Futurist for nine years. Tucker has written about emerging technology in Slate, The Sun, MIT Technology Review, Wilson Quarterly, The American Legion Magazine, BBC News Magazine, Utne Reader, and elsewhere.

Novichok and its chemists

By George Smith, PhD

Source: <http://sitrep.globalsecurity.org/articles/180402992-novichok-and-its-chemists.htm>

Feb 4 – Novichok, meaning "new guy," "newcomer, or "novice," depending on the translation, the group name for deadly nerve agents created in the Soviet Union in the Seventies and developed into the early Nineties. Deployed in Salisbury, England, novichok has been used to poison ex-spy Sergei Skripal and his daughter, Yulia. Rendering both comatose on a bench on March 4, the attack set off a furious response from emergency workers and chemical weapons experts from Britain's premier lab on weapons of chemical and biological mass destruction, Porton Down. Porton Down subsequently identified the poison

used on the Skripals, who were in critical condition, as novichok or a related compound, probably through analysis by gas chromatograph-mass spectrometry.

Who is responsible? It points to Russia, the attack order given from Moscow even though the government there has repeatedly denied involvement and that a program to produce novichok never existed. This was immediately exposed as untrue by scientists/employees of the program who came forward to give their thoughts.



Although the novichok name seems new to a lay audience, it's been known for a long time. The Russian program (formerly Soviet Union research that had started in the Seventies) was initially exposed in the early Nineties by one of its insiders, Vil Mirzayanov, in articles published by *Kuranty* (October 1991) and the *Moscow News* (with Lev Fyodorov, September 1992). Mirzayanov was arrested on charges of treason but the case against him fell apart and by 1995 he was in the United States.

Mirzayanov's goal had been to expose novichok agents, to have them prohibited, too. And while Russia joined the Chemical Weapons Convention in 1997, a treaty that outlaws the production of said weapons as well as their stockpiling, the novichok compounds were not acknowledged.

"The US engaged directly in bilateral discussions with Russian government officials [on novichok], but Russia denied everything and the US got nowhere," according to Milton Leitenberg, an arms control expert at the Center for International and Security Studies, in a recent e-mail exchange on the matter.

The Organization for Prohibition of Chemical Weapons (OPCW) "could not verify [novichok] production," Leitenberg continued. "The OPCW and bilateral [chemical weapons] inspection teams (US, UK) were not permitted access to the possible storage and/or production sites."

Mirzayanov continued his efforts to publicize novichok, most notably with a self-published book, "State Secrets: An Insider's Chronicle of the Russian Chemical Weapons Program," which included formulas of some of the agents but his efforts were stymied. Until now -- a major incident, a nerve agent attack on a CWC member's soil.

The Russian government has turned this around in the current crisis insisting with a lack of shame that the work of Mirzayanov and others proliferated novichok internationally -- to the United States, the UK, Sweden, the Czech Republic or Slovakia -- and it is they who were to blame for the attack on the Skripals.

On March 20, Russian novichok chemist Vladimir Uglev contradicted this misinformation in an interview for the Russian English publication, [the Bell](#). Uglev had been part of a long term research effort, for his part from the

early Seventies to 1988, on what became known as novichok.

Also known as the Foliant program, Uglev said he and a colleague's groups had developed four separate primary novichok compounds, three liquids and a powder, "designed as alternative to the Soviet analogy of the American nerve agent, VX." "Several hundred analogues of this series" were made, he said.

When asked what would become of the Skripals, Uglev replied they were only "technically alive." It was a cold statement, one he moderated slightly for the *Guardian* newspaper a week later by mentioning medicine had advanced decades since the invention of the presumably antidote-less novichoks. (At this time, Yulia Skripal was said to be recovering, more than "technically alive," and talking with health care workers in the hospital.)

According to Uglev's *Bell* interview, the novichok agents were "tenacious" and could be carried using a "combat case" containing cotton balls or other custom-made implements impregnated with the poison. In fact, Uglev added the Skripal attack brought to mind another assassination, that of a banker, Ivan Kivelidi and his secretary in 1995. Uglev recognized it as a novichok strike, one delivered through a contaminated telephone handset. "The specific dose was developed by my group ..." Uglev said and he had subsequently been questioned by investigators over it.

Finally there was Professor Leonid Rink, another novichok chemist, who appeared in the Russian press to apparently push his government's position, that the attack could have come from anywhere.

"For any country with weapons of mass destruction, for the United Kingdom, the States, China and all developed countries, where there is at least some chemistry, to create such weapons is a zero problem," said Rink to [Ria Novosti](#)

"For a specialist, Moscow's involvement on this ground is absurd, and it can make an impression on a western man in the street. This is calculated."

Rink was known to Uglev. "Rink's group was tasked with developing my [novichok] technology," Uglev told the *Bell*.



As it turns out Rink had another unusual qualification. He appears to be the only person in the public record to have peddled novichok, having sold a small amount, apparently to a criminal group according to an interview with [Novaya Gazeta](#).

Still, that small amount, about a quarter of a gram in a "sealed ampoule," contained enough lethality to kill 100. Rink, in legal testimony, said he had stored four ampoules in his garage. He received 1500-1800 dollars for one ampoule disguised in a "handle." Rink told investigators he knew it was being handed over for use against a person.

"The expert at the [Rink] interrogation confirmed that the data of the analysis of the toxic agent manufactured by Rink coincide with the data of the substance that the banker Kivelidi was poisoned with," reads the Russian publication. It seems certain that Skripal incident has furnished enough evidence for the Organization for the Prohibition of Chemical Weapons to

include novichok in the Chemical Weapons Convention's list of poisons.

As to why the Russian government might think it could get away with such a brazen attack it may be helpful to consider the words of the Russian chemists.

Collectively, they are a bit off in tone, possessing a kind of nasty pride. Consider the finality in which Uglev pronounced the Skripals only "technically alive" and the care he took to mention a colleague who developed novichok with him. "I find it my duty to state this in his name and in his memory," he told the Bell. It's startling, a commendation one might expect to be given to someone who made a new medicine, not a batch of deadly poisons for assassination.

With regard to Leonid Rink, besides being the novichok salesman, there were the words to Ria Novosti to the effect that Russia could not be behind the attack on the Skripals, because if it had been they would have been dead.

Rapid detection of toxic compounds

Source: <https://phys.org/news/2018-02-rapid-toxic-compounds.html>

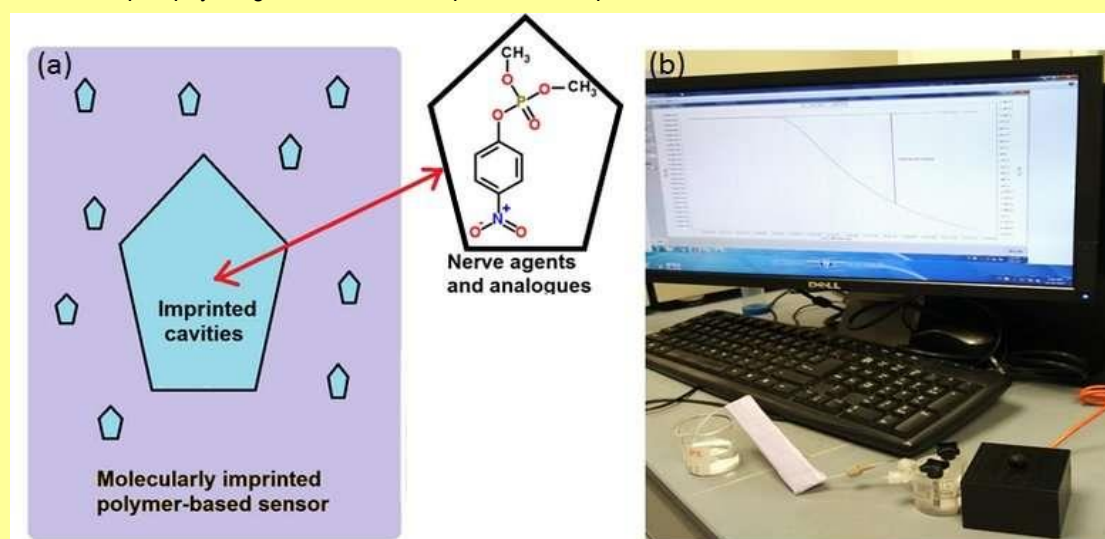


Figure shows (a) the principle of MIP-based sensors, in which unique patterns of the target molecules are imprinted on a polymer-based sensor film and (b) an experiment being carried out using the MIP-based sensor in the laboratory. The sensor response captured by the QCM is displayed on the screen. Credit: National University of Singapore

Feb 21 – NUS chemists have developed highly selective and sensitive sensors based on molecularly imprinted polymers (MIPs) for the rapid onsite detection of toxic agents.

Nerve agents, such as the well-known agent VX, are a class of phosphorus-containing organic compounds that severely impact our nervous system. These organic compounds, known as organophosphates, are widely used in many insecticides and herbicides. Conventional analytical techniques to detect them include chromatography, fluorescence



spectroscopy and immunoassay. However, these techniques usually involve sophisticated equipment or tedious time-consuming procedures that make detection particularly challenging.

A research team lead by Prof Sam Li from the Department of Chemistry, NUS has developed two types of analytical [sensors](#) which can detect these [nerve agents](#) and other toxic chemical compounds in an easier way, providing the results in a much shorter time. One of the sensors, which targets non-water soluble compounds, is made from a commercially available thermoplastic material, polyvinylidene fluoride (PVDF). The PVDF thermoplastic was fabricated using a unique MIP-based method developed by the team that uses polymers directly instead of monomers. The other sensor for detecting chemical [compounds](#) in aqueous solutions uses a biologically compatible polymer, polydopamine (PDA). The team had developed a "dry" MIP-based process during the pre-assembly stage so that a larger variety of molecular species can be detected by these sensors.

The sensors are produced using an imprinting technique at the molecular scale to create unique patterns of the target molecules on polymeric materials. These patterned polymers, known as MIPs, will then contain specific patterns with spaces that fit exactly with the target molecules. It is like an artificial tiny lock in which the target molecule serves as the miniature key. The target [chemical compounds](#), if present in the environment, will get attached to the sensor film, causing an increase in the mass. By attaching a piezoelectric quartz crystal microbalance (QCM) to it, this minute change in mass can be easily detected. Prof Li said, "The MIP-based sensors could accurately detect less than 20 micrograms of organophosphate pesticides, which are chemicals commonly used for fruit and vegetable farming in 1 litre of water, in as quickly as three minutes. Conventional methods typically complete the analysis in a time range of about 5 to 15 minutes."

Prof Li added, "The size of the detection kit could potentially be miniaturised to about half that of an iPhone 8 so that it can be carried around easily for the rapid onsite analysis of potential threats."

Russian media has offered 20 different narratives of Skripal poisoning

Source: <http://www.homelandsecuritynewswire.com/dr20180403-russian-media-has-offered-20-different-narratives-of-skripal-poisoning>



Apr 03 – As British investigators probe the poisoning of ex-Russian spy Sergei Skripal and his daughter, international consensus continues to grow that Moscow was behind the attempted assassination.

EU heads of state and government have [voiced their support](#) for the United Kingdom in its standoff with Russia, with European Council President Donald Tusk saying the Council "agrees with U.K. government that highly likely Russia is responsible for Salisbury attack and that there is no other plausible explanation."

Sergei and Yulia Skripal remain in critical condition in Salisbury, southwest England, and one police officer is recovering in hospital. More than 130 people may have been exposed to the nerve agent Novichok.

EU vs Disinfo [says](#) that in Russia, by contrast, fingers are pointing in all directions but the Kremlin. Two dozen different narratives surrounding the Skripal case have appeared in the Russian media so far, prompting British

Foreign Secretary Boris Johnson to accuse Moscow of seeking to "[conceal the needle of truth](#)" in a haystack of lies."

Here are twenty different narratives offered by Russian media and officials for the poisoning:

◆ The United Kingdom did it to fuel anti-Russian sentiment (source: Russia 1 TV channel)



- ◆ Ukraine did it to frame Russia (Russia 1)
- ◆ The United States did it to destabilise the world (Russian 1)
- ◆ Theresa May helped orchestrate the attack because she is a friend of CIA director Gina Haspel (Zvezda)
- ◆ It was an attempted suicide (Russia 1)
- ◆ It was an accidental overdose (RIA Novosti)
- ◆ It was due to accidental exposure from Britain's Porton Down research facility (Russia 24 TV channel)
- ◆ The Porton Down lab carried out illicit human testing and is lying about not producing Novichok (RT)
- ◆ Skripal's future mother-in-law did it (Moskovsky Komsomolets: mk.ru)
- ◆ Terrorists did it (Russian ministry of foreign affairs spokesperson)
- ◆ American-British financier Bill Browder — blacklisted in Russia for denouncing corruption — did it (Russia 1)
- ◆ A drone did it (Zvezda and Russian defence ministry)
- ◆ Skripal was a chemical weapons smuggler (Pravda)
- ◆ The West is using the case to deflect attention from Russia's successes in Syria (Russian ministry of foreign affairs spokesperson)
- ◆ Britain is using the case to deflect attention from Brexit (Russian Foreign Minister Sergei Lavrov, Russian UN ambassador, Russian OSCE ambassador)
- ◆ The attack was an attempt by a rival faction to undermine Vladimir Putin (state TV)
- ◆ Russia has destroyed all its stockpiles of Novichok (Sputnik)
- ◆ Russia never developed Novichok (Interfax)
- ◆ Only the Czech Republic, Slovakia, and Sweden have Novichok (Russian ministry of foreign affairs spokesperson). All three countries have denied the claim.
- ◆ There is no evidence that the nerve agent used against the Skripals was Novichok, Porton Down lab is struggling to identify the substance (RT)

Russia implies UK destroyed poisoned spy Sergei Skripal's cat and guinea pigs to 'remove important witnesses'



Source: <https://www.independent.co.uk/news/world/europe/russia-sergei-skripal-cat-death-guinea-pigs-nerve-agent-attack-salisbury-house-a8291571.html>

Apr 06 – [Russia](#) is demanding an explanation for the death of [Sergei Skripal](#)'s cat and two guinea pigs after they were left in his sealed-off house.

The animals were "important evidence" said Foreign Ministry spokeswoman Maria Zakharova, adding that they had been destroyed by British authorities,



The government confirmed [the cat had been found alive but "in a distressed state"](#) at the house in [Salisbury](#).

Found extremely malnourished, officials said the **long-haired black Persian** was taken to the [Porton Down](#) chemical weapons laboratory for testing but that it was in so much pain that a vet decided to put it down.

The **guinea pigs** reportedly died from dehydration.

Quoting a press report, Ms Zakharova condemned the way the animals had been treated.

"According to the publication, the guinea pigs and the cat were cremated," she said. "In other words destroyed, although the animals could be

important evidence in the poisoning case."

She claimed the BBC had known there were pets in Mr Skripal's house when it was sealed up but that the information was "hidden".



"I would like clarification," she said in a [Facebook](#) post, in which she angrily condemned the decision to euthanise the cat.

"It turns out that the Skripals' pets, in the form of two guinea pigs and the cat, are not alive any more," she wrote. "It's at first glance just an excuse for another joke - 'remove important witnesses'. In fact, they are really 'important witnesses' when it comes to a chemical substance, which, in a number of versions, could have been used in the Skripals' house.

"According to the British newspaper, the guinea pigs died of dehydration because they weren't taken from the house. What do you mean? Was there a search and no animals? Didn't they notice the pets of the man who was poisoned with nerve gas?!!"

She added: "The cat did it again... Supposedly he (really no one knows what day) was brought to the Porton Down lab and then... drugged. Why drugged? The answer is because the cat was 'stressed', since he was 'not noticed' in the search. Is that what the UK usually does with pets? Is that normal practice?"

[Moscow](#) raised concerns earlier this week over the animals' welfare.

A UK government spokesman said: "When a vet was able to access the property, two guinea pigs had sadly died. A cat was also found in a distressed state and a decision was taken by a veterinary surgeon to euthanise the animal to alleviate its suffering. This decision was taken in the best interests of the animal and its welfare."

News of the creatures deaths comes, as it has emerged that [Yulia Skripal](#)'s condition is improving after both she and her father were infected with the Novichok nerve agent last month.

She said she was "getting better" in a phone recording played by Russian state television.

The highest concentration of the nerve agent was later found on the front door of Mr Skripal's home. His condition remains critical but stable, according to NHS England.

Russian CBRN Capability

By Ken Russell

Source: <https://www.cbrneportal.com/russian-cbrn-capability-2/>

Apr 04 – Those of us that served in the United Kingdom armed forces in the seventies and eighties will



remember the Nuclear, Biological and Chemical (NBC) threat lecture.

[Russian Troops in NBC IPE](#)

The video used in that lecture portrayed hundreds of well trained and well equipped Russian infantry soldiers advancing at the double through a smoke screen that was simulating a gas

cloud. They appeared to all intents and purposes like extras on a Star Wars film set.

In those Cold War lessons, we learnt that our Soviet adversaries regarded chemical weapons in the same way as they regarded conventional munitions, and were prepared to use them in any future conflict.





Emergency personnel preparing to take part in the exercise

On the missile front Russia's has fielded this impressive piece of equipment. It's their Topol M on a mobile erector launcher.

Topol M on a mobile erector



Is it claimed by the Russian Federation to be capable of penetrating US missile defence systems with the capacity to completely destroy an area the size of Texas! It flies faster with a smaller heat signature which makes harder for defences to detect and shortens reaction time. It's also capable of deploying its own decoys too!



RKhM-6 CBRN reconnaissance Vehicle

This vehicle can reportedly detect chemical agents and measure the concentration whilst on the move at a distance of 5 kilometers. Its also equipped with the latest automatic meteorological and satellite navigation systems. I have highlighted and only touched on Russia's chemical capability, we must not forget of course their biological and radiological assets.



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

Ken Russell joined the army in 1975 and quickly became a NBC instructor and towards the end of his career he was posted to DBRNC Winterbourne Gunner. Following on from his time as a Trials Officer at the Defence CBRN Centre Winterbourne Gunner, Ken identified a need for CBRN training for companies and individuals outside the military environment. As a result, he founded CBRN Europe in 2010. One of his early roles for CBRN Europe was the task of acting as a Radiation Safety Supervisor to international news teams reporting on the Fukushima Nuclear Power Station disaster in Japan. Daily background radiation monitoring was undertaken amongst various other tasks.



ISIS & Al-Qaeda may merge and produce chemical weapons – FSB chief

Source: <https://www.rt.com/news/423136-isis-alqaeda-chemical-weapons/>

Apr 04 – The two terrorists organizations may merge into a new network, the Russian Federal Security Service (FSB) warns. If so, the terrorist groups may gain access to chemical weapon technology. Islamic State (IS, formerly ISIS) and Al-Qaeda can reunite into one terrorist network, the FSB's director and head of the National Anti-Terrorist Committee, Aleksandr Bortnikov, said on Wednesday. This new group would have cells across the globe and would be able to produce chemical weapons.

“Such [an] organization would have sleeper and active cells in many countries around the world with considerable experience of conducting military and subversive actions in field and city conditions, technologies and infrastructure to produce real rather than fake chemical weapons.”

The grim warning was issued at the 7th Moscow Conference on International Security.

The danger from ISIS, which once held vast parts of Iraq and Syria, should still not be underestimated, as half of the more than 1,600 terrorist attacks around the world annually are linked to the group, he added. The attacks have resulted in more than 150,000 casualties since the rise of the terrorist group in 2014, and more than 33,000 people were killed or injured in just the past year.

Meanwhile, the extremists use the rift between the world powers for their goals and this allows them to exist. The global terrorist threat, however, cannot be eliminated by local efforts, but requires a joint approach to fulfill the task, the FSB head said.

Earlier, Russian envoy to NATO Aleksandr Grushko [warned](#) that international security suffers from attempts to isolate Russia, as attempting to create “isolated safe havens” are doomed to failure.

Those warnings were echoed by UN Secretary-General Antonio Guterres – also present at the conference – who said that “no state can solve this problem [terrorism] alone.”

The two notorious terrorist factions have been embroiled in rivalry for quite some time, despite ISIS once being an affiliate of Al-Qaeda. At one point, the latter lashed out at ISIS' actions, slamming them for the ways they recruit people and use them against Al-Qaeda.

Doubts About Novichok

By Professor Paul Mckeigue, Professor Piers Robinson, and Jake Mason

Global Research, April 05, 2018

Source: <https://www.globalresearch.ca/doubts-about-novichok/5634828>

In view of the seriousness of the rapidly worsening relations between the West and Russia, and the quickly evolving military events in the Middle East, especially Syria, we have taken the step to publish relevant evidence-based analysis with respect to the Skripal incident of 4 March 2018.

Official statements from the UK government claim that the “military grade nerve agent” detected in Salisbury was “part of a group of nerve agents known as Novichok” that the



Russian chemist **Vil Mirzayanov** alleged had been developed in the Soviet Union in a secret programme. The structures of these compounds, labelled A-230, A-232, A-234, A-242 and A-262, were published by Mirzayanov in a book in 2008, twelve years after he emigrated to the US.

Other than Mirzayanov's story, there is no evidence that these compounds were ever synthesized in either the Soviet Union or Russia, or that the "Novichok" programme ever existed. The use of the term "Novichoks" to describe this **A-230 series of compounds**, which are real chemical structures, is therefore tendentious. An account by another Russian chemist Vladimir Uglev, often cited as corroboration of Mirzayanov's story, appears on close examination to be about the development of a class of nerve agents denoted GV which have been studied in several countries including Czechoslovakia and the US.

The UK government has not revealed the identity of the compound detected in Salisbury, but the Russian ambassador has stated that the Foreign Secretary told him that the compound detected was A-234. Russian experts have revealed that the mass spectrometry profile of this compound was submitted to a public database by a researcher in the US Army's Edgewood Chemical and Biological Center around 1998, indicating that **Edgewood has synthesized and studied this compound.**

There is also evidence that the US government has concealed what it knows about the A-230 series of compounds. Edgewood's entry for compound A-234 in the public database has been deleted. Furthermore, US diplomatic cables from 2009 show that the US and UK governments sought to discourage discussion of Mirzayanov's story at the OPCW and the Australia Group (an informal grouping of US-allied countries set up in 1985 to control the export of precursors for chemical weapons). It has been suggested that the A-230 series of compounds have a different mode of action to that of classic organophosphates. To ensure that all relevant information is available to the doctors caring for the victims of the Salisbury poisoning, the UK government **should without further delay reveal the identity of the compound detected, and should request urgently that all labs that have undertaken toxicity studies on such compounds make their results publicly available.**

Detailed Discussion

Did a "Novichok" programme ever exist?

The word "Novichok" comes from a Russian chemist named Vil Mirzayanov, who emigrated in 1995 after alleging that a secret programme to develop a new class of nerve agents had existed in the Soviet Union and had continued in Russia. In 2008, Mirzayanov published a book containing structures of five compounds that he alleged had been developed in this programme: they were labelled A-230, A-232, A-234, A-242 and A-262. We shall refer to these as **the A-230 series of compounds**, without taking any position as to whether they were developed in Russia as "Novichoks".

The UK government has added to this story with this [statement](#) from the Foreign and Commonwealth Office:-

*The Foreign Secretary revealed this morning that **we have information indicating that within the last decade, Russia has investigated ways of delivering nerve agents likely for assassination. And part of this programme has involved producing and stockpiling quantities of Novichok.***

The wording "we have information indicating" suggests that this is [raw human intelligence](#), rather than the "finished" evaluation for use by policy makers, for which wording of the form "[we have assessed](#)" would be used.

The Russian government denies that a Novichok programme ever existed. The Russian envoy to the UN, Vasily Nebenzya [stated on 15 March that](#):

No research, development or manufacturing of projects codenamed Novichok has ever been carried out in Russia, all CW programmes were stopped back in 1991-92_

In a [television interview](#) the Foreign Ministry spokeswoman **Maria Zakharova** gave a comprehensive denial:-

Never on the territory of the USSR in Soviet times or in the times of the Russian Federation on its territory have there been studies conducted under the code name Novichok. It was neither patented, nor used as a symbol or a code. Once more, as this is the key thing: the



word Novichok has never been used in the USSR or in Russia as something related to chemical weapons research. This word was introduced and used for poisonous materials in the West.

A recent [interview with Vladimir Uglev](#) has been often cited as corroborating Mirzayanov's account. Uglev describes how he helped to develop a "new class of organophosphorus chemical agents", but states that the name "Novichok" was not used for these compounds. Uglev states that one of these compounds, obtained from a military laboratory, was used to murder the banker **Ivan Kivelidi** and his secretary **Zara Ismailova** in 1995. A [report in the pro-Western magazine Novaya Gazeta](#) includes an image of a page from a document purported to be from the investigation of this murder. This document shows a reconstruction of the molecular structure of the compound from the fragments detected by mass spectrometry. However the reconstructed structure shown is identical to that of a nerve agent known as **GV** (see Appendix), with what may be the mistaken substitution of an ethoxy group for a fluorine atom. If Uglev's account is accurate and this document is genuine, this establishes that the new class of nerve agents that he helped to develop was the GV class of agents, which Russia has never denied studying. **Because the A-230 series of compounds have structures that are very different from GV-like compounds, Uglev's story does not corroborate that of Mirzayanov.** Mirzayanov's [account in 1995](#), in which he labels "Substance 33" (the Russian isomer of VX), as a "precursor" (possibly "forerunner" is the intended meaning as Russian VX is not a chemical precursor) of what he called "novichoks" is also consistent with these being GV-type agents. At a [briefing by the Russian Ministry of Foreign Affairs on 21 March](#), Viktor Kholstov, Director of the Centre for Analytical Research on Chemical and Biological Weapon Conventions under the Russian Ministry of Industry and Trade, stated that "Vil Mirzayanov did not have these formulas [the structures given in his 2008 book for the A-230 series of compounds] in the early 2000s".

In summary, there is ample evidence that the Soviet Union and other countries were developing GV-type agents up to the 1990s. However **Mirzayanov's story that the chemical structures labelled as A-230 to A-262 in his 2008 book were developed in the Soviet Union or Russia remains open to serious doubt.**

Was one of the A-230 series of compounds used in the Salisbury poisoning?

The Prime Minister stated to the House of Commons on 12 March that *It is now clear that Mr Skripal and his daughter were poisoned with a **military-grade nerve agent of a type developed by Russia**. It is part of a group of nerve agents known as Novichok.* On 22 March, the Russian Ambassador to the UK gave a [briefing](#): *On 12 March, 8 days after the day of poisoning, I was summoned by Foreign Secretary Johnson, who put forward a 24-hour ultimatum to explain the Russian Government's position by the end of the next day. The question was put like following: either the incident in Salisbury was a direct act of the Russian Government against the UK or the Russian Government had lost control of a nerve agent **that the Foreign Secretary identified as A-234**, and allowed it to get into the hands of others.*

The UK government has not confirmed that the nerve agent was identified as A-234, or that this information was conveyed to the Ambassador by the Foreign Secretary. It is expected that the OPCW investigation will reveal the identity of the agent detected in Salisbury within the next few weeks. For now, it is reasonable to assume that the agent found was one of the A-230 series of compounds.

Scientific studies of the A-230 series of compounds

In 2016, Iranian scientists [reported](#) bench scale synthesis of a few compounds closely related to those labelled by Mirzayanov as "Novichoks". They added the mass spectrometry signatures of these compounds studied to the OPCW's Central Analytical Database. The structure denoted "compound 3" in their paper is similar to A-234 except that it has methyl instead of ethyl groups.

A similar study of the compound later published as A-234 had been undertaken by Dr Dennis Rohrbaugh at the US Army Chemical and Biological Defense Command's Edgewood Research Development and Engineering Center around 1998. He added the mass spectrometry profile to the 1998-2001 version (NIST 98) of the National Institute of Standards and Technology Mass Spectral Library. This was revealed in a [television interview](#) by Professor Igor Rybalchenko, formerly the head of the Russian chemical weapon detection lab (the



Laboratory of Chemical and Analytical Control of the Ministry of Defence). Rybalchenko is a highly-respected scientist who has worked closely with western colleagues on the OPCW Scientific Advisory Board and with international agencies supervising the destruction of the former Soviet chemical weapons stockpiles. Rybalchenko showed a [slide](#) (at 1:11:53 in the recording) and explained:-

As far back as 1998, we looked through a regular edition of the spectral database released by the US National Bureau of Standards [now the National Institute of Standards and Technology], which has spectral data on about 300,000 compounds and is regularly updated, to find an agent that caught our attention as it was an organophosphate chemical. We understood that it must have a lethal effect. Now it has turned out that, judging by the name of that agent, it was “Novichok” A-234.

The image shows a faded printout of a record from NIST 98 for a chemical with formula C₈H₁₈FN₂O₂P named as N-(O-ethyl-fluorophosphoryl)-N'-N'-diethyl-acetamidine, with NIST number 226889. As Rybalchenko notes, this molecular structure corresponds to A-234

Evidence that the US and UK governments are concealing what they know about the A-230 series of compounds

The record submitted by Edgewood for a compound with formula C₈H₁₈FN₂O₂P no longer exists in the [current version](#) of the NIST Mass Spectral Library. As such research is entirely legitimate, it is puzzling that this record should have been deleted.

A [secret cable dated 26 March 2009](#) from a US delegate to OPCW reported that at a meeting of the OPCW Data Validation Group in The Hague a few weeks earlier, “representatives of several countries (Finland, Netherlands, UK) had begun discussing the Mirzayanov book on the margins of the meeting”. The US delegate noted that

U.S. Del understands from OSD that the UK Ministry of Defense has spoken to its counterparts in the Netherlands and Finland, apprised them of the conversation, and asked each country to provide guidance to its del members not/not to raise this issue in the future

The Canadian delegate was also curious, but the US and UK delegates expressed lack of familiarity with and interest in the matter.

*On March 25, in a private conversation, Canadian delegate asked U.S. and UK Delreps whether they had heard of the Mirzayanov book “State Secrets: An Insider’s View of the Russian Chemical Weapons Program.” Canadian Rep added that Mirzayanov now appeared on YouTube. UK Rep acknowledged she had heard of it, but said this was the first time she had heard of “novichoks” and thought the entire discussion was **best left to experts in capital**. U.S. Delrep indicated a **lack of familiarity with the subject matter** and indicated no interest in pursuing the discussion further.*

The cable requested further “guidance as to how this issue is to be handled if raised by others” for US members of OPCW technical advisory bodies such as the Scientific Advisory Board. The cable was addressed to the CIA, the National Security Council, the Secretary of Defense and the Secretary of State, suggesting that this issue was being discussed at high levels of the US government.

A [subsequent cable](#) on 3 April 2009 from the **Secretary of State Hillary Clinton** instructed the US delegation to the Informal Inter-Sessional Meeting of the Australia Group (a group of US-allied countries set up in 1985 to control the export of precursors of chemical weapons) that one of five US objectives for the meeting was to:-

— *Avoid any substantive discussion of the Mirazayanov book “State Secrets: An Insider’s View of the Russian Chemical Weapons Program” or so-called ‘Fourth Generation Agents.’*

More detailed guidance was provided for the US delegates, echoing the description of how US and UK delegates had responded to the Canadian delegate a week earlier:-

If AG participants raise the issue of Vils Mirazayonov’s book “State Secrets: An Insider’s View of the Russian Chemical Weapons Program,” the Del should:

- *Report any instances in which the book is raised.*
- *Not/not start or provoke conversations about the book or engage substantively if it comes up in conversation.*
- *Express a lack of familiarity with the issue.*



— Quietly discourage substantive discussions by suggesting that the issue is ‘best left to experts in capitals.’

These cables establish that the US and UK governments sought to discourage discussion of Mirzayanov’s book in 2009. Taken together with the deletion of the record for A-234 submitted by Edgewood to the NIST Mass Spectral library, this suggests that **the US and UK governments are concealing what they know about the A-230 series of compounds**, for reasons that are not clear.

These cables suggest a reinterpretation of our earlier briefing in which we noted that the OPCW Scientific Advisory Board in 2013 had stated that it “*has insufficient information to comment on the existence or properties of “Novichoks”*”. We had interpreted this as scepticism, on the part of experts who were in a position to know, about whether these compounds were really military-grade nerve agents. From the cables cited above, however, it appears that these experts may have been following the guidance issued earlier that they should “discourage substantive discussions” of the matter.

What is known of the toxicity of the A-230 series of compounds?

Rybalchenko stated that “All that we know is that all substances of this class are very difficult to overcome in case of injuries, and the antidote therapy will hardly bring about the desired effect”. One [review](#) has stated (without citing a source) that inhibition of an enzyme known as neuropathy target esterase, which can cause delayed nerve damage, “is of primary concern for the Novichok agent”. The consultant treating the victims of the Salisbury poisoning reported on 22 March that they were “[heavily sedated following injury by a nerve agent](#)” and unable to communicate. This prolonged paralysis is not typical of acute poisoning by standard organophosphate agents. To ensure that all available toxicological and medical expertise can be mobilized to help the Salisbury doctors manage the victims, the identity of the agent should be made public without delay. Edgewood and any other laboratories that have studied this compound should reveal the results of any toxicity studies they have done.

Appendix – technical points

This appendix explains some technical points on which there has been confusion.

Why is it necessary to synthesize a new compound before it can be detected by mass spectrometry?

Mass spectrometry identifies compounds by the mass-charge ratio of the ions produced by fragmentation of the compound. These mass-charge ratios, combined with separation by another method such as gas chromatography, are a unique “signature” for the compound. To determine this signature for a new compound, it has to be synthesized and analysed by mass spectrometry to measure the mass-charge ratios, which are then added to databases so that the compound can be detected in future by matching the observed mass-charge ratios with the records in the database.

Is it feasible to synthesize these compounds at bench scale?

The Iranian paper confirms that compounds similar to A-234 can be synthesized at bench scale in any modern university lab. Synthesis at industrial scale for military use would be a different matter, but an assassination would require only bench scale quantities.

Did Porton Down make a definite identification of the agent?

In Mr Justice Williams’s [court judgement](#) on 22 March, the statement from witness CC, described as “Porton Down chemical and biological analyst” was summarized as follows:-

*Blood samples from Sergei Skripal and Yulia Skripal were analysed and the findings indicated exposure to a nerve agent or related compound. The samples tested positive for the presence of a **Novichok class nerve agent or closely related agent**.*

This is similar to the form of words that OPCW has used to report positive blood tests for sarin exposure: “[sarin, or a sarin-like substance](#)”. This wording is used because blood tests for nerve agent detect only what is left of the molecule after it has bound to the receptor. The “leaving group” (the rest of the molecule) cannot be identified. For sarin (and presumably for A-234) the leaving group is a fluorine atom, and for VX the leaving group is a thiol.

Although it is possible that the blood test would not be able to identify definitively a molecular structure such as A-234, this inability to determine the leaving group applies only to



physiological samples. If environmental samples have tested positive, Porton Down should have been able to identify the original molecule precisely. As noted above, **to use the word “Novichoks” for the A-230 series of compounds is tendentious.**

The GV agents studied in several countries are not the “Novichoks” described by Mirzayanov

In his authoritative review, Dr Robin Black, former head of the detection laboratory at Porton Down, makes clear that the development of a class of “intermediate volatility agents” (IVAs), designated “GV agents” by the Czechoslovak chemists Ivan Masek and Jiri Matousek is distinct from Mirzayanov’s unconfirmed story about “Novichoks”:-

Two additional series of nerve agents are worthy of mention. Research on IVAs in several countries led to the analogue known as GV, O-(2-dimethylaminoethyl) N,N-dimethyl phosphoramidofluoridate (Scheme 1.7). The name GV was coined by Czech chemists to indicate properties of both G and V agents.⁶⁵ The US military designator was GP. GV is a hybrid structure incorporating structural features of tabun, sarin and V agent. GV had true intermediate volatility properties (bp 226 °C, volatility 527 mg m⁻³ at 25 °C),⁶⁶ producing sufficient vapour to cause an inhalation hazard, and possessing percutaneous toxicity approaching that of the V agents. GV might have become an important threat agent had it not had very poor storage stability. It has been suggested that a binary version might be feasible.

In recent years, there has been much speculation that a fourth generation of nerve agents, ‘Novichoks’ (newcomer), was developed in Russia, beginning in the 1970s as part of the ‘Foliant’ programme, with the aim of finding agents that would compromise defensive countermeasures.^{67,68} Information on these compounds has been sparse in the public domain,^{30,68–70} mostly originating from a dissident Russian military chemist, Vil Mirzayanov.⁶⁹ No independent confirmation of the structures or the properties of such compounds has been published.

While In Coma: Yulia Skripal Logged Into Her VKontakte Page? (Russian Version of Facebook)

Source: <https://www.globalresearch.ca/while-in-coma-yulia-skripal-logged-into-her-vkontakte-page-russian-version-of-facebook/5634276>

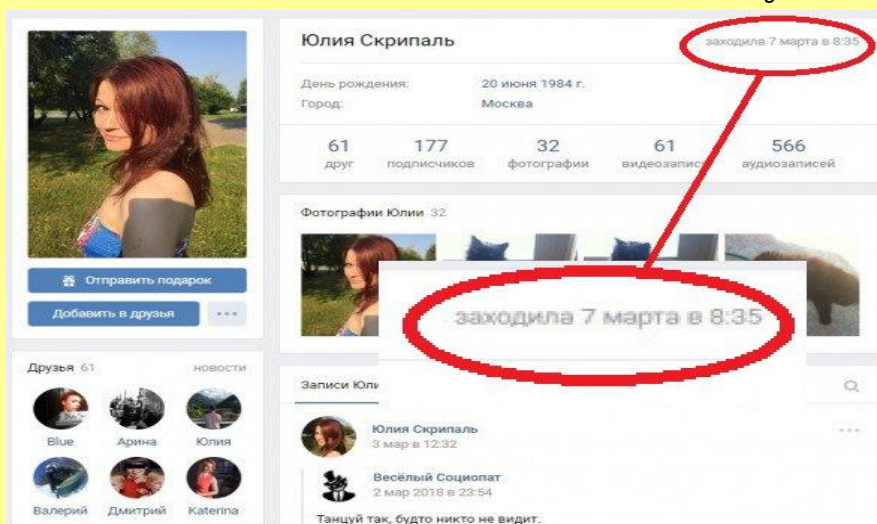
Apr 01 – The 33-year-old daughter of Sergei Skripal, Yulia Skripal, visited her “Vkontakte” page – sort of a Russian version of Facebook – on the morning of March 7th, three days after the “assassination”

attempt that put her allegedly in a coma, until just a few days ago. She was poisoned, according to the British government, along side her father Sergei, and according to the official version, hasn’t regained consciousness until quite recently.

There is the theoretical possibility that her page was hacked or an agency entered through her handheld device, if they were not protected by a password. Any hacking would probably be by employees of the British special services, though Russian agencies would also have an interest. There is also the curious statement by the head

physician of the hospital, where she allegedly is with her father, that she came to her senses for a short time, before falling back in a coma.

Another possibility is that, in line with the statement of the head physician, she ‘came to her senses’ and actually wasn’t in a coma at all, or never ‘fell back’ into a coma.



It is especially strange that all this comes as we have news from the UK that the Foreign Office has said it is “considering Russia’s request for consular access to Yulia Skripal”.

We should keep in mind that the UK has utterly failed its obligations, legal and otherwise, to be transparent and grant access to Russia – given that Yulia is a Russian citizen. ‘Considering Russia’s request’ is itself reflective of an abrogation of international norms. It is not a ‘request’ which leaves the receiver of said request with any room for any answer than compliance. ‘Request’ is one of these legal terms which layman interprets as something other than a ‘demand’.

Is it not strange that within a day of Russia putting forward its ‘request’, suddenly Yulia has recovered from her ‘coma’ and is now talking and interacting with people?

Is this to prevent Russian consular authorities from confirming her condition, as they are legally obliged to do?’

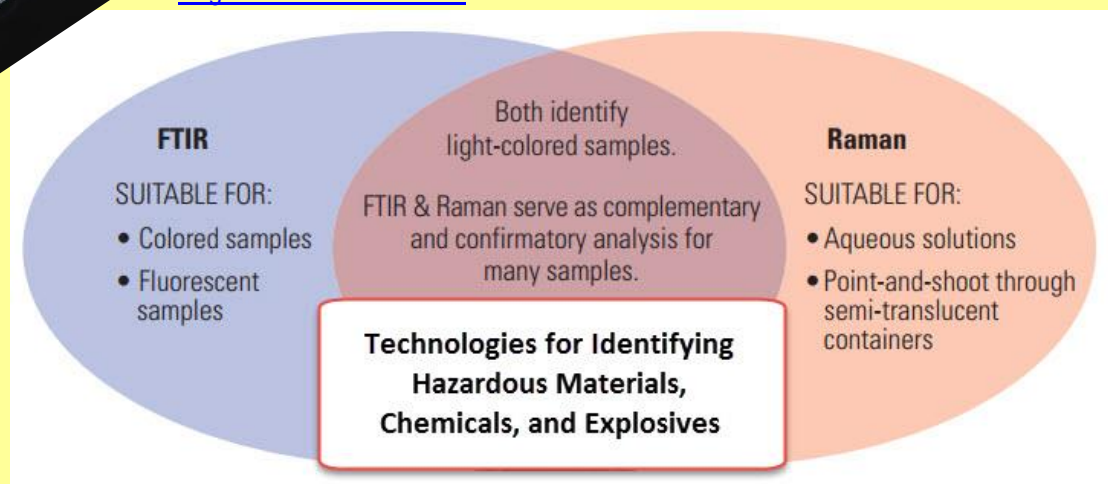
How to Identify Hazardous Materials, Chemicals, and Explosives in the Field

Source: <https://www.thermofisher.com/blog/identifying-threats/how-to-identify-hazardous-materials-chemicals-and-explosives-in-the-field/>



Mar 03 – First responders faced with an [unknown chemical substance](#) have a number of immediate challenges, including choosing the most appropriate technology to assess the situation.

Response tools for solid and liquid chemical identification include analyzers based on [Raman spectroscopy](#), analyzers based on [Fourier Transform Infrared \(FTIR\) spectroscopy](#), and analyzers that incorporate both of these lab-proven techniques in a [single handheld instrument](#).



In both FTIR and Raman spectroscopy, the instruments acquire a spectral fingerprint of an unknown substance, and then compare the collected fingerprint against a reference library. Both methods are lab-proven, precise optical technologies offering distinct advantages in specific applications. Used together, FTIR and Raman spectroscopy provide a broader range of [unknown substance identification](#)—and better protection for the responder and the community.

Optical Techniques for Chemical Identification

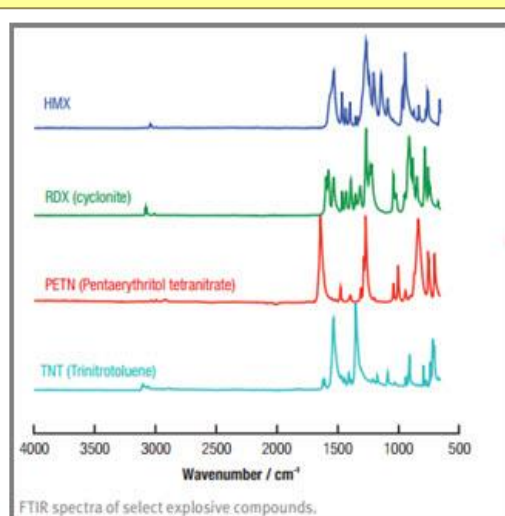
FTIR and Raman spectroscopy measure the interaction of energy with the molecular bonds in a sample of an unknown material. FTIR measures how much light is absorbed by the bonds of a vibrating molecule; that is, the remaining energy from the original light source after being passed through the substance. In comparison, Raman measures the energy that is scattered after being excited by a laser.



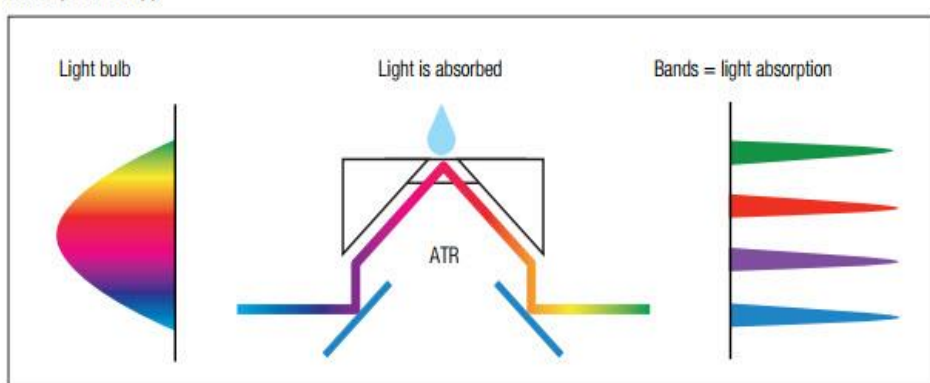
FTIR Spectroscopy

FTIR is an absorption spectroscopy technique, where mid-infrared light is passed through the sample. Some wavelengths may be absorbed while others merely pass through the sample unaffected. Specific molecular bonds absorb a specific amount of energy and these losses of energy correspond to the peaks returned in an analysis. FTIR absorptions provide outstanding and easily interpretable results for many substances. FTIR spectroscopy is best used as a primary analysis technique in the following scenarios:

- **Colored Substances:** Highly effective in identifying unknown solids and liquids of various pigmentations including industrial dyes, pigments and oils.
- **Fluorescent Materials:** Many colored samples produce optical noise called fluorescence during Raman sampling, which can obscure the spectral fingerprint of the substance. FTIR spectroscopy is ideal for fluorescent samples since it measures absorption of light, effectively eliminating this identification challenge



FTIR Spectroscopy

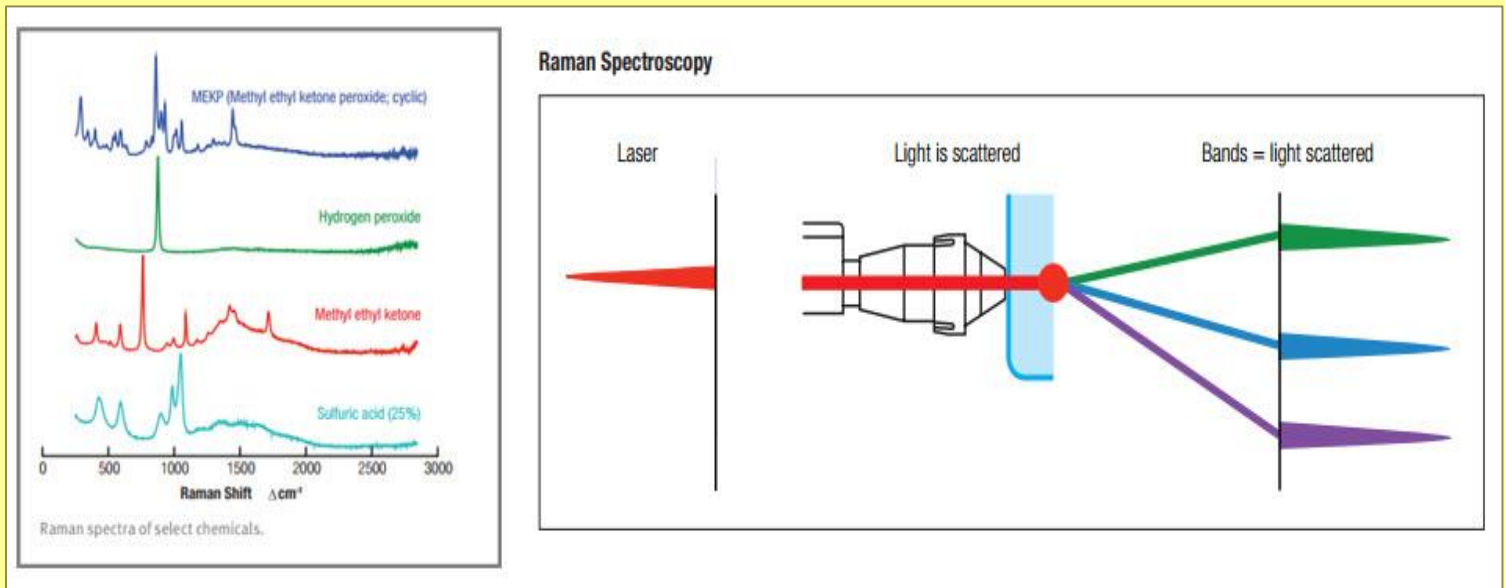


Raman Spectroscopy

Raman is a vibrational spectroscopy technique where a single wavelength laser is focused on a sample. The laser excites the bonds of a molecule, which generates measurable scattered light to identify the material in question. Raman is a highly effective method for reliable identification of an unknown substance based on its underlying chemistry. Raman spectroscopy is best used as a primary analysis technique in the following scenarios:

- **Sealed Containers:** As an optical technique, handheld Raman spectrometers can operate in a point-and-shoot mode and analyze substances contained in transparent and translucent containers. This eliminates the need for direct contact with potentially hazardous unknowns. An integrated vial mode may be available so it can also be used to analyze materials in standard colorless and amber glass vials.
- **Aqueous Solutions:** Raman spectroscopy virtually disregards water in samples (because of the very weak Raman signal) and is able to provide superior identification of potentially threatening materials in aqueous solutions.
- **White or Light Colored Powders:** Raman spectroscopy excels at the identification of white and light powders as these typically have very strong measurable Raman signals.





Hazardous materials and explosives chemical identification tools are designed to leverage the power of each technique to maximize coverage of a broad range of unknown substances. When used alone, each technology quickly provides the analytical results needed to evaluate and identify unknown substances for safe remediation. When used together, they can serve as confirmatory techniques, providing a more comprehensive identification for greater confidence in response.

Syrian regime carried out 214 chemical attacks since 2011, watchdog says

Source: <http://theinsidercarnews.com/2018/04/05/syrian-regime-carried-out-214-chemical-attacks-since-2011/>



Apr 05 – The report was released on the first anniversary of a regime chemical attack in the town of Khan Sheikhoun in the northwestern Idlib province a year ago, in which over 100 people were killed and hundreds more injured. France, Germany and the USA observed Syria's deadly use of chemical weapons on civilians one year ago in the town of Khan Sheikhoun by vowing to hold accountable those who were responsible.

The U.S. warned the UN Security Council Wednesday of an alarming increase in chemical weapons attacks one year after a deadly nerve agent was deployed on civilians in northwestern Syria. "At the same time as some are running after phantoms of chemical weapons in Damascus, in the region unsafe chemical weapons terrorism potential continues to be masked", he said. She accused President Bashar Assad's regime of still using chemical weapons "practically every other week", including "credible reports of chlorine gas attacks" in the Damascus suburbs of eastern Ghouta which the government seized recently.

A statement from White House press secretary Sarah Sanders on Wednesday stated that "The military mission to eradicate ISIS in Syria is coming to a rapid end, with ISIS being nearly completely destroyed". "We expect countries in the region and beyond, plus the United Nations, to work toward peace and ensure that ISIS never re-emerges". The Syrian regime has carried out 11 chemical attacks since Khan Sheikhoun, according to the Syrian Network for Human Rights. Britain's UN Ambassador Karen Pierce also criticised Syria for failing to answer 21 serious issues about "gaps, inconsistencies, and discrepancies" in its chemical weapons declaration to the OPCW. "Our lack of action has consequences", the ambassador continued. Both of those attacks have been tied by authorities to state actors - Russian Federation and North Korea. When we let one regime off the hook, other stake notice. She accused Russian Federation of calling a meeting of the OPCW on the Salisbury attack in The Hague, Netherlands, on Wednesday "to pre-empt the findings of the OPCW investigation" of the nerve agent used on ex-spy Sergei Skripal and his daughter. The Security Council convened Wednesday to discuss chemical weapons use in Syria on the anniversary of that attack, which stirred worldwide outrage. "No one wants to live in fear that a colorless, shapeless gas will suddenly seep into our lungs and leave us gasping for air".



Myth busting: Why didn't the Skripals die on the spot?

By Dan Kaszeta

Source: <http://www.politics.co.uk/comment-analysis/2018/04/06/myth-busting-why-didn-t-the-skipals-die-on-the-spot>

Apr 06 – An interesting question has been raised. If nerve agents -and in particular the so-called Novichok agents - are so deadly, why didn't Sergie and Yulia Skripal die immediately? Instead, as countless internet conspiracy theorists have pointed out, both the daughter and father appear to be out of critical condition. This is a valid question that deserves an answer.

First, it is important to get the terminology correct. 'Nerve agents' are chemical substances that interfere with the chemistry of the human nervous system by binding with an enzyme called acetylcholinesterase. By this definition, a number of chemical warfare agents and a number of pesticides are included in the family of compounds known as nerve agents.

Nerve agents are not toxins by the technical definition. Toxins are poisons produced from animal, plant, or microbial sources. Snake venom is a toxin. Sarin and VX and Novichoks, being products of wholly man-made origin, are not toxins. The term 'nerve gas' is not useful, either, as the nerve agents are all liquids or solids at room temperature.

The term 'military grade' is also completely pointless. Some militaries made very high grade nerve agents during the Cold War, such as the USSR and the United States. However, militaries have made and used much lower-grade nerve agents, such as the very poor quality Sarin that Saddam Hussein made and used against both civilian and military targets in the Iran-Iraq war. As militaries have had both the highest and lowest grade of nerve agent, the term 'military grade' is redundant. It is literally comparable to saying 'catering-grade grape product' to refer to both the highest grade Bordeaux and grape juice.



Nerve agents only really work quickly when they are inhaled. The mechanism of action in the Skripal case appears to be dermal absorption – the agent got into their systems through the skin. This works slowly. Signs and symptoms progress from localised ones at the site of exposure to central ones over a period of hours. In a cold war-era study with goats and the nerve agent Soman, death took up to 48 hours after exposure to the shaved skin. It's not exactly fast.

Second, if something happened to reduce the intended dose - for instance if the person opening a door handle was wearing gloves - then a possibly quite lethal dose could have been mitigated to a lower one. In addition, we must also allow for human factors. Did one of the Skripals say: "What is this muck on my hands? I'm going to wash up". That would have initiated a self-decontamination effort. Soap and water is actually quite good at decontaminating nerve agents, as numerous studies have indicated. All of the organophosphate nerve agents degrade in the presence of water, through a mechanism called hydrolysis. So, did the door handle in question get wet? Salisbury is not known for an arid climate.

Practical toxicity in the field differs greatly from the theoretical toxicity of poisons in laboratory conditions. Every major nerve agent incident (Tokyo, Halabja, Ghouta, Khan Sheikhoun etc) has had more people injured than killed. The Tokyo incident killed 12 people, but there were nearly 70 with major exposure who survived and nearly a thousand with minor to moderate exposure.

The most important thing to consider, however, is the nature of the lethality and toxicity estimates for nerve agents. All of these toxicological statistics are derived from studies wherein the targets (almost always lab animals) did not receive decontamination or treatment for their injuries. Indeed, if you were trying to experimentally determine figures for lethality, administering antidote therapy or decontamination would warp the results and be bad science. Statements that 'substance X is five times more lethal than Y' are only valid in the absence of medical treatment.

The bottom line is that **nerve agents are killers in the absence of serious medical care**, but their track record as killers is actually quite poor if some medical care is given. There are a number of cases where people were exposed to very high doses of nerve agents and survived with aggressive medical interventions.

It is clear that the Skripals and the police constable received serious and relevant medical interventions. The phrase 'no antidote to Novichoks' has been used and taken seriously out of context here. It's true that there's no specific antidote to the Novichoks in the sense of an antitoxin or antivenin as a direct attack on the offending chemical. But we can tackle the harm they do.

All of the nerve agents, old and new, operate on the same biochemical principles and cause the same mechanism of injury by provoking a 'cholinergic crisis'. The direct therapy for this crisis is the same regardless of dose and regardless of the agent causing it. The most important drug is atropine. It directly works as an antagonist for the excess acetylcholine in the nervous system. Or, simply, it knocks down the build-up of chemicals that is making the victim sick. Atropine is not exotic or rare. It is routinely stocked in ambulances and hospitals for a number of uses, including overdoses and cardiac situations.

In the case of Salisbury, atropine is specifically referenced in the hospital trust's publically-available emergency plans. There's nothing odd or strange about atropine being available in Salisbury. NHS ambulance services and hospital A&E services have been worrying about chemical terrorism for decades now. Excellent training is being given and numerous exercises have been held. People should be happy, not shocked, that training and protocols kicked in.

Other medical measures are important. There is a category of drugs called oximes. Their usefulness varies from nerve agent to nerve agent, and varies with the time between exposure and administration of drugs. Their usefulness in Novichok situations is not well established. Anticonvulsants like diazepam are useful as well, and would be relevant in Novichok poisoning. Supportive care to maintain open airways, assist breathing (if necessary, using ventilators) and maintain circulation are critical to survival, but are basic skills for any serious hospital.

Having worked in chemical warfare defence for 27 years, the survival of Sergei and Yulia Skripal are no surprise to me.



Dan Kaszeta is a London-based consultant in security and chemical defence. He has 27 years experience in the field, with roles in the US Army, the White House, the US Secret Service, and private industry.

Another Chemical Attack in Syria: But Why Is the Corporate Media Missing Crucial Points?

By Paul Antonopoulos

Source: <https://www.globalresearch.ca/another-chemical-attack-in-syria-but-why-is-the-corporate-media-missing-crucial-points/5635230>

Apr 08 – The last terrorist-held bastion of East Ghouta to the east of Damascus city center, Duma, has been devastated by a chemical weapons attack that has killed at least 70 people.

The majority of the victims were women and children.

However, characteristically and typically, the mainstream media have immediately blamed the Syrian military for the dreadful attack even before investigations can occur. Their sources?

The White Helmets and Jaish al-Islam.

Let's first deal with **Jaish al-Islam**. The media have used Jaish al-Islam for information on the attacks, but how can a group who openly and proudly publish photos of them caging women to be used as human shields as they launch endless mortar and rocket attacks against civilians in Damascus be trusted?

Or how can this same media trust reports coming from a terrorist group whose founder and former

leader openly praised Osama bin Laden, the same person blamed for the famous 9/11 attacks that killed nearly 3000 US citizens?

So with it established that Jaish al-Islam are a radical terrorist group who praise Bin Laden and have no qualms in using women as human shields, why is the possibility that they could have been responsible for this latest chemical attack considered?

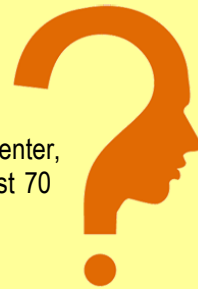
It was reported by journalist Sharmine Narwani who was on the ground in East Ghouta just last month that the Syrian Army liberated "Eastern Ghouta farmlands between Shifouniyeh and Douma and **discovered a well-equipped chemical**

laboratory run by Saudi-backed Islamist terrorists. Not a single Western reporter showed up to investigate the facility."

Her report goes into further details and provides photos of the laboratory. Why is it such a far fetched idea to the corporate media that the terrorists could have conducted this latest atrocity?

Then, the second and quoted source for the reports are the **White Helmets**. I am not going into detail why they are an unreliable source as this has already been done in great detail by other journalists such as Vanessa Beeley.

However, it must be questioned why the White Helmets who **claim to be neutral only operate in areas controlled by terrorist organisations** such as Jaish al-Islam and Al-Qaeda affiliated Al-Nusra Front, or why their members often change uniforms between the white helmet and militant uniforms.



So we come to the terrible conclusion that the corporate media are relying on two organizations which are ideologically inspired and/or aligned with Al-Qaeda. Yes, let us repeat that again, the main source for the corporate media are two organizations aligned with Al-Qaeda.

But does this prove the Syrian government did not conduct the chemical weapon attack? Of course it does not, but we must question *why* the Syrian military would resort to such a drastic measure. There was no clear strategic advantage to deploy such weapons.

The Syrian Army in a little more than a month liberated over 90% of the East Ghouta pocket with ease, so why at the final hurdle with every advantage in their favor, would they resort to chemical weapons. The corporate media portrays the Syrian authorities as acting irrationally without thought to consequences, but rather, there has been many examples where Syria could have deployed such weapons to preserve their own soldiers, but has opted not to and risked further casualties to ensure that civilians face minimal harm in any operation.

We must also question why the Syrian air force never put their alarm systems on red alert if they had conducted such an attack. US President Donald Trump has proven he is willing to conduct missile attacks against the Syrian military when mere accusations that it conducted chemical weapon attacks has occurred as the the raid on the Shayrat Airbase on April 6, 2017 just days after the Khan Sheikhoun incident demonstrates. This would be a careless move by the Syrian government, especially just days after Trump announced he wants to withdraw the US military from Syria.

It is known the deep state of the US does not want a military withdrawal from Syria; such an incident could force Trump to stay in Syria despite his openness that he does not want this.

In addition, we must also question why these attacks always seem to kill women and children and never terrorists. The Syrian military takes every precaution that civilians are not killed, so much so that the Syrian government for weeks has been trying to bring a peaceful resolution to Duma, even allowing terrorists to take up amnesty with zero repercussions for their crimes or to be transported to another part of Syria with guaranteed safety, just as their allies in Harasta and other parts of East Ghouta successfully took up.

This same terrorist group has [kidnapped civilians](#) from the nearby town of Adra, caged women to be used as human shields, openly praise Bin Laden and [refused](#) civilians to evacuate Duma, but all of a sudden we cannot think of the possibility that they gassed women and children to force an international intervention in Syria, especially after [US officials](#) have openly said they not tolerate such attacks and are willing to conduct strikes even before investigations have been conducted as the attack against the Shayrat Airbase demonstrates.

We also cannot forget that the Russian and Syrian governments in recent times have both said that terrorists in East Ghouta were [preparing a chemical attack](#). This of course has been omitted from the corporate medias report on this latest incident.

Therefore, before blame can be assigned, we all must wait for investigations to be done. That is to say if investigators are willing to go into Duma under control of Jaish al-Islam to do their report. We know after Khan Sheikhoun, despite all the blame put on the Syrian government, investigators refused to go as it was controlled by Salafi terrorists, just as Duma is.

WHO: 500 Douma patients had symptoms consistent with toxic weapons exposure

Source: <http://www.arabnews.com/node/1282786/middle-east>

Apr 11 – The World Health Organization condemned a suspected chemical weapons attack in Douma, Syria last weekend, in which it said an estimated 500 patients went to health facilities with “signs and symptoms consistent with exposure to toxic chemicals.”

“WHO demands immediate unhindered access to the area to provide care to those affected, to assess the health impacts, and to deliver a comprehensive public health response,” Peter Salama, WHO deputy director-general for emergency preparedness and response, said in a statement issued in Geneva.



UN aid agencies do not have access to most of the enclave of eastern Ghouta, including Douma, where the alleged attack occurred. The Syrian government has denied responsibility.

The Case for Bombing Assad

By Michael Totten

World Affairs Journal

April 12, 2018

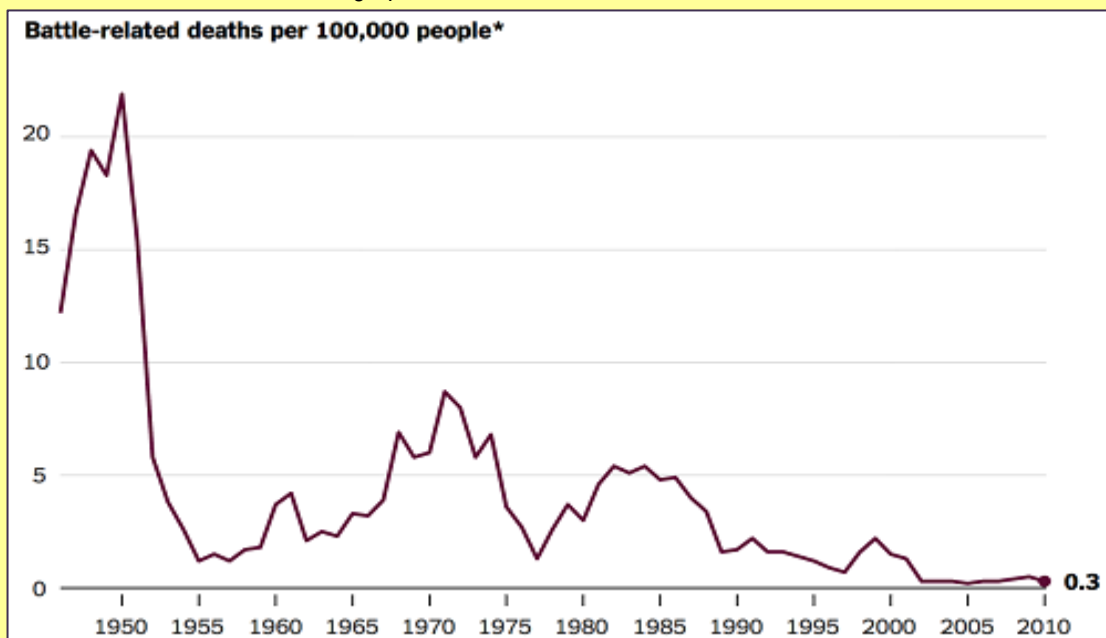
Source: <https://www.meforum.org/articles/2018/the-case-for-bombing-assad>

Bombing Syria over President Bashar al-Assad's [use of chemical weapons in Douma last week](#)—as President Donald Trump [promises to do](#)—is almost an absurdity. Nearly half a million people on all sides have been killed in Syria since the civil war erupted in 2011, barely 100 of them by the regime's most recent sarin attack. Assad can mass murder civilians by the hundreds of thousands with exploding [barrel bombs packed with shrapnel](#), but he can't gas 0.01 percent as many with a nerve agent? It barely even makes any sense and seems driven more by an emotional reaction to ghastly reports on television than anything else. And yet it makes sense. The use of any and all weapons of mass destruction anywhere in the world must remain taboo, and it can't remain taboo if it isn't punished.

War is hell and always will be, but it's less hellish now than it was. The mood almost everywhere on earth during the smoldering aftermath of the two world wars was *let's never do that again*. Alas, the first wasn't [the war to end all wars](#) as so many had hoped, and genocide didn't go the way of the [dodo](#) after the second.

Even so—and hard as it is to believe for anyone who pays even the slightest attention to news coverage—war is on its way down if not out. In his book, [The Better Angels of Our Nature: Why Violence Has Declined](#), Harvard Professor Steven Pinker makes a compelling case that homicidal violence of all kinds (including crime as well as war) have been steadily declining for centuries and that we are currently living in the least violent era of our species' history.

Take a look, for instance, at his graph for war-related deaths since the end of World War II.



The first peak on the left represents the Korean War, the next bulge the Vietnam War, the second smaller bulge the Iran-Iraq War, and the last uptick the Second Congo War. The armed conflicts in Afghanistan, Iraq and Syria hardly even register as a blip. Everything on that graph is a blip next to World War II. That's why it isn't shown. World War II was so catastrophically violent that everything afterward would appear as a flat line hugging the



bottom. Even more people per capita were killed before the bloody twentieth century when wars and homicidal violence of all kinds were as routine as the weather.

Violence has declined for a vast number of complex reasons, far too many to list in a short article, and the long decline began centuries before the dates in the graph above. Since World War II, though, an array of treaties and agreements commonly referred to as “international law” have made wars not only less common but also less brutal.

For example:

- [The Geneva Conventions](#), negotiated in 1949, which protect prisoners of war from torture and other abuses.
- The [Law of Armed Conflict](#), also known as the “law of war,” a body of international agreements that regulate hostilities between belligerents and clearly define what is and what is not a war crime.
- [The International Criminal Court](#) in The Hague, which places war criminals on trial if and when their home countries are unwilling or unable to do so.
- [The Treaty on the Non-Proliferation of Nuclear Weapons](#), which should need no explanation, signed in 1968 and effective in 1970.
- [The Biological Weapons Convention](#), signed in 1972 and effective in 1975, prohibits the development of “microbial or other biological agents...that have no justification for prophylactic, protective or other peaceful purposes.”
- [The Chemical Weapons Convention](#), drafted in 1992, signed in 1993, and effective in 1997, prohibits the development, production, stockpiling and use of chemical weapons and mandates the destruction of those that already exist.

Syria is a party to the Chemical Weapons Convention, which as of 2017 has eliminated [96% of the world's stockpiles](#), but treaties written by civilized people are worthless in the capitals of despotic criminal rogue states. Laws—or “laws,” if you insist in the international realm—are nothing more than suggestions without enforcement mechanisms. Air and missile strikes aren’t the only conceivable enforcement mechanisms, but sanctions and diplomatic isolation would likely have no effect whatsoever in the apocalyptic hellscape of Syria under Assad.

After World War I, the now-expired League of Nations ratified the Geneva Protocol prohibiting the use of chemical weapons. It lasted for a while, but it didn’t stick—Iraqi dictator Saddam Hussein used nerve agents with devastating effects during the Iran-Iraq War in the 1980s.

UN investigators issued a report [and a warning](#) at the time: “It is vital to realize that the continued use of chemical weapons in the present conflict increases the risk of their use in future conflicts. In view of this, and as individuals who witnessed first-hand the terrible effects of chemical weapons, we again make a special plea to you to try to do everything in your power to stop the use of such weapons in the Iran–Iraq conflict and thus ensure that they are not used in future conflicts. ... In our view, only concerted efforts at the political level can be effective in ensuring that all the signatories of the Geneva Protocol of 1925 abide by their obligations. Otherwise, if the Protocol is irreparably weakened after 60 years of general international respect, this may lead, in the future, to the world facing the specter of the threat of biological weapons.”

Biological weapons have never been used on the battlefield, but Saddam Hussein did receive an implicit green light from the rest of us, and he used chemical weapons again in his genocidal Anfal Campaign against the Kurdish population in Northern Iraq.

The Assad regime won’t disappear or suddenly turn into a model of good government by a couple of punishing strikes, nor will the number of Syrian dead in the future be reduced even by one. Those are not the objectives. The objective is (or at least should be) making the use of a weapon of mass destruction more costly than not using it, to demonstrate not just to Assad but also to every other would-be war criminal that the norm established in 1993 on behalf of every human being will not go down without a fight.

This is not what we might expect from a president who campaigned as an America Firster, but hardly any of us are mindlessly consistent ideologically.

Michael Totten is a writing fellow at the Middle East Forum

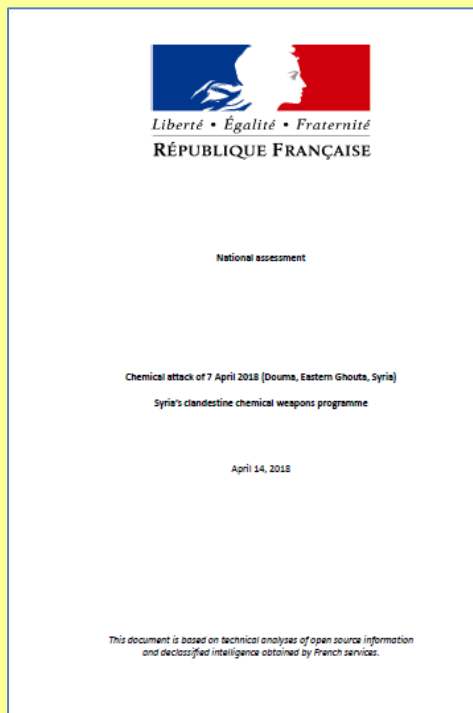


National assessment

Chemical attack of 7 April 2018 (Douma, Eastern Ghouta, Syria) – Syria's clandestine chemical weapons programme

April 14, 2018

Source: https://www.diplomatie.gouv.fr/IMG/pdf/180414_-_syria_-_fr_national_assessment_-_english-version_cle0c76b5.pdf
https://www.diplomatie.gouv.fr/IMG/pdf/180414_-_syria_-_fr_national_assessment_-_english-version_cle0c76b5.pdf



EDITOR'S COMMENT: This is one of the few reports that provide photos consistent with nerve agents' poisoning – the only question is if these photos are real (of today) or from archives of the past (i.e. from Halabja massacre back in the 1980s).

Syrian Army Discovers Ex-Militant Base and Weapons Cache Under Hospital in Douma

Source: <https://sputniknews.com/middleeast/201804161063619517-militant-hospital-base-damascus/>

Video: <https://www.youtube.com/watch?v=PqGqwAwJL5M>

Apr 16 – Militants and their allied propaganda groups, such as the infamous White Helmets, have repeatedly accused the Syrian Army of deliberately targeting hospitals. Damascus has denied these claims and no evidence has been provided to substantiate the militants' accusations.

Troops from the Syrian Army discovered a massive militant base underneath the National Hospital in the recently liberated city of Douma

in Damascus, according to emerging reports and circulating footage.

Militants from the Jaysh al-Islam (Army of Islam) terrorist group used the facility as a weapons cache and hiding place, potentially using patients in the above hospital as human shields to deter Syrian warplanes from attacking the base, or to trick them into unknowingly





striking the hospital to draw in foreign military intervention.

Government forces recently entered the city of Douma after regaining control over it from hardline Islamist militants in the East Ghouta region. Douma is where the alleged chemical attack took place earlier this month, prompting the US, the UK and France to strike targets in Syria, despite the Syrian government denying any involvement and no evidence implicating them.

The Syrian Army and allied ground forces regained control over the entirety of Eastern Ghouta after launching operation Damascus Steel several weeks ago.

The area's liberation is a major boost to the security of the capital, as militants used the region as a launchpad to fire mortars and improvised explosives into government-held parts of the city, killing and injuring hundreds of civilians in recent months.

Demining operations are ongoing in Eastern Ghouta to remove explosives and traps left by the militants, but the combat phase of the operation has successfully been completed, and government forces are now preparing to liberate parts of southern Damascus, where the Daesh terrorist group maintains a presence.

U.S. suggests Russia, Syria may tamper with Douma evidence, Moscow denies it

Source: <https://www.reuters.com/article/us-mideast-crisis-syria/u-s-suggests-russia-syria-may-tamper-with-douma-evidence-moscow-denies-it-idUSKBN1HN1EC>

Apr 16 – The United States accused Russia on Monday of blocking international inspectors from reaching the site of a suspected poison gas attack in Syria and said Russians or Syrians may have tampered with evidence on the ground.

Moscow denied the charge and blamed delays on retaliatory U.S.-led missile strikes on Syria on Saturday.

British Prime Minister Theresa May and French President Emmanuel Macron faced criticism

from political opponents over their decisions to take part in the air strikes.

Syria and Russia deny unleashing poison gas on April 7 during their offensive on Douma, which ended with the recapture of the town that had been the last rebel stronghold near the capital, Damascus.

Relief organizations say dozens of men, women and children were killed. Footage of young victims foaming at the mouth and weeping



in agony has thrust Syria's civil war - in which half a million people have been killed in the past seven years - to the forefront of world concern again.

Inspectors from the Organisation for the Prohibition of Chemical Weapons (OPCW) traveled to Syria last week to inspect the site, but have yet to gain access to Douma, which is now under government control after the rebels withdrew.

"It is our understanding the Russians may have visited the attack site," U.S. Ambassador Kenneth Ward said at an OPCW meeting in The Hague on Monday.

"It is our concern that they may have tampered with it with the intent of thwarting the efforts of the OPCW Fact-Finding Mission to conduct an effective investigation," he said. His comments at the closed-door meeting were obtained by Reuters.

Russian Foreign Minister Sergei Lavrov denied Moscow had interfered with any evidence. "I can guarantee that Russia has not tampered with the site," he told the BBC.

Increasing regional jitters, Syrian anti-aircraft defenses shot down missiles fired at the air base of Shayrat in Homs province late on Monday and at another base northeast of the capital, Damascus, Syrian state television and pro-Iranian Hezbollah media said.

The Pentagon said there was no U.S. military activity in that area "at this time."

An Israeli military spokesman said: "We don't comment on such reports".

The U.N. Security Council is due to be briefed on Tuesday, at the request of Russia, on the situation in Syria's northern city of Raqqa, where Islamic State was defeated last year by U.S.-backed forces, and the Rubkan camp for displaced Syrians near the country's border with Jordan and Iraq.

EDITOR'S COMMENT: Yeah, sure! Curious to know how – removing earth, removing walls, doors and windows, replace vegetation and equipment?

The search for truth in the rubble of Douma – and one doctor's doubts over the chemical attack

By Robert Fisk

Source: <https://www.independent.co.uk/voices/syria-chemical-attack-gas-douma-robert-fisk-ghouta-damascus-a8307726.html>

Apr 17 – This is the story of a town called Douma, a ravaged, stinking place of smashed apartment blocks – and of an underground clinic whose images of suffering allowed three of the Western world's most powerful nations to bomb Syria last week. There's even a friendly doctor in a green coat who, when I track him down in the very same clinic, cheerfully tells me that the "gas" videotape which horrified the world – despite all the doubters – is perfectly genuine.

War stories, however, have a habit of growing darker. For the same 58-year old senior Syrian doctor then adds something profoundly uncomfortable: the patients, he says, were overcome not by gas but by oxygen starvation in the rubbish-filled tunnels and basements in which they lived, on a night of wind and heavy shelling that stirred up a dust storm.

As Dr Assim Rahaibani announces this extraordinary conclusion, it is worth observing that he is by his own admission not an eyewitness himself and, as he speaks good English, he refers twice to the jihadi gunmen of Jaish el-Islam [the Army of Islam] in Douma as "terrorists" – the regime's word for their enemies, and a term used by many people across Syria. Am I hearing this right? Which version of events are we to believe?

By bad luck, too, the doctors who were on duty that night on 7 April were all in Damascus giving evidence to a chemical weapons enquiry, which will be attempting to provide a definitive answer to that question in the coming weeks.

France, meanwhile, has said it has "proof" chemical weapons were used, and US media have quoted sources saying urine and blood tests showed this too. The WHO has said its



partners on the ground treated 500 patients “exhibiting signs and symptoms consistent with exposure to toxic chemicals”.

At the same time, inspectors from the Organisation for the Prohibition of Chemical Weapons (OPCW) are currently blocked from coming here to the site of the alleged gas attack themselves, ostensibly because they lacked the correct UN permits.

Before we go any further, readers should be aware that this is not the only story in Douma. There are the many people I talked to amid the ruins of the town who said they had “never believed in” gas stories – which were usually put about, they claimed, by the armed Islamist groups. These particular jihadis survived under a blizzard of shellfire by living in other’s people’s homes and in vast, wide tunnels with underground roads carved through the living rock by prisoners with pick-axes on three levels beneath the town. I walked through three of them yesterday, vast corridors of living rock which still contained Russian – yes, Russian – rockets and burned-out cars.

So the story of Douma is thus not just a story of gas – or no gas, as the case may be. It’s about thousands of people who did not opt for evacuation from Douma on buses that left last week, alongside the gunmen with whom they had to live like troglodytes for months in order to survive. I walked across this town quite freely yesterday without soldier, policeman or minder to haunt my footsteps, just two Syrian friends, a camera and a notebook. I sometimes had to clamber across 20-foot-high ramparts, up and down almost sheer walls of earth. Happy to see foreigners among them, happier still that the siege is finally over, they are mostly smiling; those whose faces you can see, of course, because a surprising number of Douma’s women wear full-length black hijab.



Rubble fills a street in Douma, the site of a suspected chemical weapons attack, near Damascus (AP)

I first drove into Douma as part of an escorted convoy of journalists. But once a boring general had announced outside a wrecked council house “I have no information” – that most helpful rubbish-dump of Arab officialdom – I just walked away. Several other reporters, mostly Syrian, did the same. Even a group of Russian journalists – all in military attire – drifted off.

It was a short walk to Dr Rahaibani. From the door of his subterranean clinic – “Point 200”, it is called, in the weird geology of this partly-underground city – is a corridor leading downhill where he showed me his lowly hospital and the few beds where a small girl was crying as nurses treated a cut above her eye.



"I was with my family in the basement of my home three hundred metres from here on the night but all the doctors know what happened. There was a lot of shelling [by government forces] and aircraft were always over Douma at night – but on this night, there was wind and huge dust clouds began to come into the basements and cellars where people lived. People began to arrive here suffering from hypoxia, oxygen loss. Then someone at the door, a "White Helmet", shouted "Gas!", and a panic began. People started throwing water over each other. Yes, the video was filmed here, it is genuine, but what you see are people suffering from hypoxia – not gas poisoning."



Independent Middle East Correspondent Robert Fisk in one of the miles of tunnels hacked beneath Douma by prisoners of Syrian rebels (Yara Ismail)

Oddly, after chatting to more than 20 people, I couldn't find one who showed the slightest interest in Douma's role in bringing about the Western air attacks. Two actually told me they didn't know about the connection.

But it was a strange world I walked into. Two men, Hussam and Nazir Abu Aishe, said they were unaware how many people had been killed in Douma, although the latter admitted he had a cousin "executed by Jaish el-Islam [the Army of Islam] for allegedly being "close to the regime". They shrugged when I asked about the 43 people said to have died in the infamous Douma attack.

The White Helmets – the medical first responders already legendary in the West but with some interesting corners to their own story – played a familiar role during the battles. They are partly funded by the Foreign Office and most of the local offices were staffed by Douma men. I found their wrecked offices not far from Dr Rahaibani's clinic. A gas mask had been left outside a food container with one eye-piece pierced and a pile of dirty military camouflage uniforms lay inside one room. Planted, I asked myself? I doubt it. The place was heaped with capsules, broken medical equipment and files, bedding and mattresses.

Of course we must hear their side of the story, but it will not happen here: a woman told us that every member of the White Helmets in Douma abandoned their main headquarters and chose to take the government-organised and Russian-protected buses to the rebel province of Idlib with the armed groups when the final truce was agreed.



There were food stalls open and a patrol of Russian military policemen – a now optional extra for every Syrian ceasefire – and no-one had even bothered to storm into the forbidding Islamist prison near Martyr's Square where victims were supposedly beheaded in the basements. The town's complement of Syrian interior ministry civilian police – who eerily wear military clothes – are watched over by the Russians who may or may not be watched by the civilians. Again, my earnest questions about gas were met with what seemed genuine perplexity.

How could it be that Douma refugees who had reached camps in Turkey were already describing a gas attack which no-one in Douma today seemed to recall? It did occur to me, once I was walking for more than a mile through these wretched prisoner-groined tunnels, that the citizens of Douma lived so isolated from each other for so long that "news" in our sense of the word simply had no meaning to them. Syria doesn't cut it as Jeffersonian democracy – as I cynically like to tell my Arab colleagues – and it is indeed a ruthless dictatorship, but that couldn't cow these people, happy to see foreigners among them, from reacting with a few words of truth. So what were they telling me?

They talked about the Islamists under whom they had lived. They talked about how the armed groups had stolen civilian homes to avoid the Syrian government and Russian bombing. The Jaish el-Islam had burned their offices before they left, but the massive buildings inside the security zones they created had almost all been sandwiched to the ground by air strikes. A Syrian colonel I came across behind one of these buildings asked if I wanted to see how deep the tunnels were. I stopped after well over a mile when he cryptically observed that "this tunnel might reach as far as Britain". Ah yes, Ms May, I remembered, whose air strikes had been so intimately connected to this place of tunnels and dust. And gas?

Robert Fisk is the multi-award winning Middle East correspondent of The Independent, based in Beirut. He has lived in the Arab world for more than 40 years, covering Lebanon, five Israeli invasions, the Iran-Iraq war, the Soviet invasion of Afghanistan, the Algerian civil war, Saddam Hussein's invasion of Kuwait, the Bosnian and Kosovo wars, the American invasion and occupation of Iraq and the 2011 Arab revolutions. Occasionally describing himself as an 'Ottoman correspondent' because of the huge area he covers, Fisk joined The Independent in 1989. He has written best-selling books on the Middle East, including Pity the Nation and The Great War for Civilisation. He was born in Kent in 1946 and gained his BA in English and Classics at Lancaster University. He holds a PhD in politics from Trinity College, Dublin.

Eight Reasons Why the Latest Syria Chemical Weapons Attack Allegations Are Almost Certainly Complete Nonsense

By Stephen Gowans

Source: <https://www.globalresearch.ca/eight-reasons-why-the-latest-syria-chemical-weapons-attack-allegations-are-almost-certainly-complete-nonsense/5636547>

Apr 17 – There is much ambiguity surrounding the alleged chemical weapons attack in Douma, said to have taken place late Saturday, but there are a few matters that are clear.

First, the reports are "unverified", according to The Wall Street Journal [1] and British Foreign Office [2] and are unconfirmed, according to the US State Department [3]. What's more, The New York Times noted that it "was not possible to independently verify the reports," [4] while The Associated Press added that "the reports could not be independently verified." [5]

Second, according to The Wall Street Journal, it isn't "clear who carried out the attack" [6] assuming even that one was carried out.

Third, the "unverified photos and videos" [7] which form the body of (unverified) evidence, were produced by two groups which have an interest in fabricating atrocities to draw the United States more deeply into the Syrian conflict. Both groups, the White Helmets and Syrian American Medical Society, are funded by Western governments [8], which openly seek regime change in Syria and therefore have an interest in producing a humanitarian pretext to justify stepping up their intervention in the country. The Western government-funded White Helmets and Syrian





American Medical Society are allied with anti-government jihadists and are active only “in opposition-controlled areas.” [9] They, too, are clearly interested parties.

Fourth, The New York Times indirectly revealed a possible motivation for the two groups to bring forward fabricated atrocity stories. “A new confirmed chemical attack in Syria,” the newspaper noted, “would pose a dilemma for President Trump, who ... recently said he wants to get the United States out of Syria.” [10] Trump’s recent musings about ending the US military occupation of nearly one-third of Syrian territory, including the country’s richest oil fields, was swiftly met by Pentagon opposition, led by US **Defense Secretary Jim Mattis**. The US president reluctantly accepted a continued occupation, so long as it ends in a matter of months rather than years.

Fabricating an atrocity would pressure Trump to maintain the US occupation indefinitely and possibly escalate US military intervention in Syria, much to the pleasure of Islamist insurgents, their White Helmet and Syrian American Medical Society allies, and US war planners.

If that is the intention, the maneuver appears to have met with success. Trump reacted on Twitter to the unverified (and unverifiable) reports, by dehumanizing Syrian president **Bashar al-Assad** as an “animal,” who the US president said was responsible for a “humanitarian disaster for no reason whatsoever.” That the US State Department acknowledged that the reports were unconfirmed failed to restrain the “shoot-from-the-hip” Trump.

Fifth, a chemical attack by the Syrian government would be manifestly self-defeating, and therefore would seem to be highly unlikely. The Syrian Arab Army is on the cusp of an all but inevitable victory in Eastern Ghouta. Why would it cancel its gains by handing the United States a pretext to continue its military intervention in Syria, in the aftermath of Trump signalling his intention to withdraw US troops?

Sixth, it is difficult to conceive of any military benefit to the Syrian Arab Army of deploying chemical weapons. The Syrian military has more lethal conventional ways of killing than using chemical agents, whose effects are unpredictable and typically small scale. In all the alleged chemical attack incidents in Syria, the claimed number of victims is always smaller than that which could easily be produced by air strikes and artillery. Why, then, would the Syrian government use relatively ineffective chemical weapons, creating a pretext for continued US intervention, when it could use more deadly conventional weapons, without a crossing a red line?

Seventh, much of the discourse about chemical weapons in Syria implicitly assumes the Syrian government has them, despite the country cooperating with the Organization for the Prevention of Chemical Weapons to eliminate them years ago.



Finally, allegations of chemical weapons use are routinely made against the Syrian government, and while, through repetition, have been transfigured into received truths, have all proved to be unverified. Jim Mattis acknowledged this at a February 2 news conference.

Q: Just make sure I heard you correctly, you're saying you think it's likely they have used it and you're looking for the evidence? Is that what you said?

SEC. MATTIS: ... We do not have evidence of it...we're looking for evidence of it....

Q: So the likelihood was not what your — you're not characterizing it as a likelihood? I thought I used — you used that word; I guess I misunderstood you.

SEC. MATTIS: Well, there's certainly groups that say they've used it. And so they think there's a likelihood, so we're looking for the evidence.

Q: So there's credible evidence out there that both sarin and chlorine —

SEC. MATTIS: No, I have not got the evidence, not specifically. I don't have the evidence.

What I'm saying is that other — that groups on the ground, NGOs, fighters on the ground have said that sarin has been used. So we are looking for evidence. I don't have evidence, credible or uncredible. [11] Absence of evidence is not evidence of absence, but neither is it evidence of guilt. The complete lack of evidence, along with a political context that favors the production of spurious allegations, suggests that the latest chemical weapons claims are—like all that have preceded them—dubious at best.

Notes

1. Raja Abdulrahim, "Dozens killed in alleged chemical-weapons attack in Syria," The Wall Street Journal, April 8, 2018.
2. Ben Hubbard, "Dozens suffocate in Syria as government is accused of chemical attack," The New York Times, April 8, 2018.
3. Hubbard.
4. Hubbard.
5. Zeina Karam and Philip Issa, "Syrian rescuers say at least 40 people killed in eastern Ghouta has attack," The Associated Press, April 8, 2018.
6. April 8.
7. Abdulrahim, April 8.
8. Raja Abdulrahim, "Syria airstrikes hit hospitals in rebel territory," The Wall Street Journal, February 5, 2018; Louisa Loveluck and Erin Cunningham, "Dozens killed in apparent chemical weapons attack on civilians in Syria, rescue workers say," The Washington Post, April 8, 2018.
9. Abdulrahim, April 8; Abdulrahim, February 5.
10. Hubbard.
11. Media Availability by Secretary Mattis at the Pentagon, Secretary of Defense James N. Mattis, Feb. 2, 2018, <https://www.defense.gov/News/Transcripts/Transcript-View/Article/1431844/media-availability-by-secretary-mattis-at-the-pentagon/>

Russian Military Uncovers Militants' Chemicals Lab In Syria's Douma

Source: <https://southfront.org/russian-military-uncovers-militants-chemicals-lab-in-syrias-douma/>

Apr 17 – The Russian military has uncovered a militants' lab for the production of chemical weapons and the storage of its components in the Syrian town of Douma, specialist of Russia's radiation, chemical and biological protection force in Syria Alexander Rodionov told the Rossiya-24 TV Channel on Tuesday.

"During the inspection of the town of Douma, a chemical laboratory and a chemicals warehouse were found," he said.

"While inspecting them, specialists of the radiation, chemical and biological protection force discovered chemical substances controlled by the Convention on the Prohibition of Chemical Weapons. The specialists found such substances as **thiodiglycol** and **diethanolamine** required for obtaining sulfur and nitrogen mustards. Besides, at the warehouse the



specialists found a canister with **chlorine** similar to the chemical used by the militants to stage a disseminated fake episode. A conclusion can be made that this laboratory was used by illegal armed formations for the production of chemical agents,” Rodionov said.

Some non-governmental organizations, including White Helmets, claim that chemical weapons were used in Douma, Eastern Ghouta, on April 7. According to the statement posted on the organization’s website on April 8, chlorine bombs were dropped on the city to kill dozens and poison other local civilians who had to be brought to hospital.

The Russian Foreign Ministry dismissed that as fake news. The Russian Defense Ministry stated that White Helmets were an unreliable source, notorious for disseminating falsehoods. The Russian Center for the Reconciliation of the Warring Sides on April 9 examined Douma to find no traces of chemical weapons.

On April 14, the United States, Great Britain and France delivered a massive missile strike against Syria’s military and civil infrastructure facilities, claiming that their actions were in response to an alleged use of chemical weapons in Douma by the Syrian government troops.

In Syria, O.P.C.W. Is Asked to Arbitrate: Chemical Attack or Not?

By Palko Karasz

Source: <https://www.nytimes.com/2018/04/17/world/middleeast/opcw-syria.html>



Apr 17 – Inspectors from the Organization for the Prohibition of Chemical Weapons [were seeking on Tuesday](#) to enter Douma, a suburb of Damascus, where the United States and Western allies say the Syrian government dropped chemical weapons.

Syria and its main backers, Iran and Russia, say claims of chemical weapons use were concocted by rebels, rescue workers and the West.

Syrian state media said on Tuesday that inspectors had entered Douma. The organization would not comment on those reports.

It’s the second time recently that the organization has been thrust into a geopolitical crisis — another high-profile case, [the poisoning of a Russian former spy and his daughter in Britain](#), also drew attention to the group.

The organization is among the few groups to have [received a Nobel Peace Prize](#), which it did in 2013. But what is it and how do its investigators work? And what weight do its conclusions carry?



What does the O.P.C.W. do?

The organization works with the 192 countries that have signed [the Chemical Weapons Convention](#), an international agreement that “prohibits the use, development, production, stockpiling and transfer of chemical weapons.”

Its job is to monitor compliance with that treaty, and to work toward ridding the world of chemical weapons. It also has a role in verifying the elimination of those weapons.

The group [describes itself](#) as “an independent, autonomous, international organization with a working relationship with the United Nations.”

In 2013, Syria signed the convention and agreed to eliminate its chemical weapons stockpiles. On a joint mission with the United Nations, the organization arranged for [the transport of all chemical weapons](#) the Syrian government had declared for disposal overseas.

Over 96 percent of state-declared stockpiles around the world have been destroyed under the watch of the organization. However, as seems to be the case in Syria, that doesn’t necessarily mean that countries no longer have chemical weapons, because there is no way to guarantee that they declared everything they had.

How can inspectors work in a war zone?

The organization was not created to work in battle zones and has had to adapt to send its inspectors to countries at war. In 2014, [allegations of chemical weapons use in Syria](#) prompted the group to dispatch a [fact-finding mission](#) to the country, the first time it had sent a team to an area of active conflict. (They first visited Syria [in 2013](#).)

Collecting samples while making sure they can be used for evidence takes time, and such missions can turn investigators into targets. While working in Syria in 2014, for example, their convoy [came under fire](#). Last year, while looking into further allegations of [chemical weapons use](#) in Syria, investigators did not visit [the town of Khan Sheikhoun](#) because of security fears. Instead, they relied on witness accounts and samples collected from the site. That opened [their conclusions](#) to criticism from Russia and Syria, which contended that Damascus had disposed of all its chemical weapons.

Can the O.P.C.W. point the finger?

No. The organization’s job is to establish whether chemical weapons were used, not who used them. “It’s dealing with things it wasn’t really intended to deal with,” said Richard Guthrie, a chemical weapons expert and editor of [CBW Events](#), a website that tries to document uses of chemical and biological weapons.

When the Chemical Weapons Convention was being negotiated, Mr. Guthrie said, “the concern was large-scale use of chemical weapons on the battlefield — that had happened in [the Iran-Iraq war](#).” But that is different from identifying the relatively small-scale use of chemical weapons, like the alleged case in Syria, or the attack on the spy and his daughter in Britain.

Until the end of last year, the organization had a mandate to pass on its findings to a [Joint Investigative Mechanism](#), established by the United Nations Security Council, which would try to identify the perpetrators of attacks. But [last year Russia vetoed](#) the extension of that mandate.

That leaves a disconnect: Even if the organization finds that chemical weapons were used in Douma, the question of who is to blame could remain unresolved.

Palko Karasz is a digital editor for The New York Times, based in the London newsroom. He is part of a digital team that covers live news, including recent terrorist attacks and elections across Europe. He uses tools like Facebook Live and Snapchat to tell stories and make sure international news stories reach their audience. He also writes features, often from Central and Eastern Europe. With the help of reader submissions he has told stories about corruption in the deep tissue of Romanian society and about integration of refugees in Germany. His previous work included coverage of the migration crisis and its aftermath in Hungary and Austria, Viktor Orban’s government in Hungary, and emerging cultural trends in Central Europe. Mr. Karasz studied journalism



and politics at Sciences Po Paris. Before London he lived and worked in Bucharest, Budapest and Paris.

OPCW Issues Report on Technical Assistance Requested by the United Kingdom

Source: <https://www.opcw.org/news/article/opcw-issues-report-on-technical-assistance-requested-by-the-united-kingdom/>

THE HAGUE, Netherlands — 12 April 2018 — The Organisation for the Prohibition of Chemical Weapons (OPCW) transmitted yesterday to the United Kingdom of Great Britain and Northern Ireland (UK) the report of the OPCW's mission to provide requested technical assistance in regard to the Salisbury incident on 4 March 2018.



The results of the analysis by the OPCW designated laboratories of environmental and biomedical samples collected by the OPCW team confirm the findings of the United Kingdom relating to the identity of the toxic chemical that was used in Salisbury and severely injured three people.

The UK's delegation to the OPCW requested that the Technical Secretariat share the report with all States Parties to the Chemical Weapons Convention (CWC) and to make the Executive

Summary of the report publicly available.

The Director-General, Ambassador Ahmet Üzümcü, thanked the four OPCW designated laboratories that supported the technical assistance request for their swift and thorough analysis.

Background

The United Kingdom of Great Britain and Northern Ireland requested technical assistance from the OPCW Technical Secretariat, under subparagraph 38(e) of Article VIII of the Chemical Weapons Convention, in relation to an incident in Salisbury on 4 March 2018 involving a toxic chemical—allegedly a nerve agent—and the poisoning and hospitalisation of three individuals.

The OPCW team worked independently and is not involved in the national investigation by the UK authorities. No State Party was involved in the technical work carried out by the Technical Secretariat.

OPCW designated laboratories are a lynchpin of the Organisation's verification regime and its capacity to investigate allegations of the use of chemical weapons. They must be able to perform off-site analysis of chemical samples collected by OPCW inspectors from chemical production facilities, storage depots and other installations, or from the site of an alleged use of chemical weapons. These laboratories offer the necessary assurance to our States Parties that chemical analyses needed to make determinations or to clarify issues occurring during OPCW deployments are carried out competently, impartially, and with unambiguous results.

As the implementing body for the Chemical Weapons Convention, the OPCW oversees the global endeavour to permanently and verifiably eliminate chemical weapons. Since the Convention's entry into force in 1997 – and with its 192 States Parties – it is the most successful disarmament treaty eliminating an entire class of weapons of mass destruction.

Over 96% of all chemical weapon stockpiles declared by possessor States have been destroyed under OPCW verification. For its extensive efforts in eliminating chemical weapons, the OPCW received the 2013 Nobel Peace Prize.

More Information

- ◆ [Summary of the Report on Activities Carried Out in Support of a Request for Technical Assistance by the United Kingdom of Great Britain and Northern Ireland \(Technical Assistance Visit TAV/02/18\)](#)
- ◆ [Update by the Director-General to the Executive Council at its Fifty-Seventh Session](#)



◆ [OPCW Fact Sheets](#)

Salisbury Nerve Agent Attack Reveals \$70 Million Pentagon Program at Porton Down

By Dilyana Gaytandzhieva

Source: <https://www.globalresearch.ca/salisbury-nerve-agent-attack-reveals-70-million-pentagon-program-at-porton-down/5636361>

Apr 17 – The Pentagon has spent at least \$70 million on military experiments involving tests with deadly viruses and chemical agents at Porton Down – the UK military laboratory near the city of Salisbury. The secretive biological and chemical research facility is located just 13 km from where on 4th March former Russian spy **Sergei Skripal** and his daughter **Yulia** were found slumped on a



bench following an alleged Novichok nerve agent poisoning.

Monkeys being used in warfare agent testing at Porton Down in the past

►► Read the rest of this VERY interesting paper at source's URL.

Dilyana Gaytandzhieva is a Bulgarian investigative journalist and Middle East Correspondent. Over the last two years she has published a series of [revealing reports on weapons smuggling](#).

German Company Defies U.S., Continues Sending Iran Parts Used in Syria Chemical Attacks

Source: <http://www.thetower.org/6149-germany-company-defies-u-s-continues-sending-iran-parts-used-in-syria-chemical-attacks/>

Apr 12 – A German company involved in Syrian chemical attacks has defied a warning from the United States and continues trading with Iran, Ben Weinthal [reported](#) in *The Jerusalem Post* on Wednesday.

A Syrian photographer had found parts made by **German company Krempel** in Iranian-produced chemical rockets that were used in chemical warfare against Syrian civilians in January and February, resulting in the death of 21 children and adults.

“There continue to be ongoing risks with doing business there because the Iranians have not reformed their system,” the U.S. Under Secretary of the Treasury for Terrorism and



Financial Intelligence, Sigal Mandelker, said on Tuesday. She warned that Iran was using money to support its terror proxies Hezbollah and Hamas, as well as the regime of Bashar al-Assad.

Krempel in a statement to the *Post* conceded that it continues trading with Iran, but maintained “Krempel GmbH complies strictly with legal guidelines. In unclear situations, we seek legal advice and apply corresponding measures in order to remain in compliance.”

The company added that it was now delivering “a different Pressspan [also not a dual-use good] exclusively to an original equipment manufacturer in Iran because we can know the end usage.”

Krempel’s decision to do business with Iran drew sharp condemnation from Julie Lenarz, a Senior Fellow at the Israel Project.

“On Saturday, harrowing footage of children foaming at the mouth, dying in agony from exposure to chemical weapons, flashed across our television screens again,” she said, adding that “If our politicians want to move beyond empty mantras of condemnation, they can start by punishing the protectors of the murderous Assad regime.”

Lenarz told the *Post* that “Since the nuclear accord was signed with Iran in 2015, European countries and companies have flocked to Tehran for lucrative business deal,” with devastating consequences.

“No company with a robust ethical code, nor any country with a moral compass intact could possibly regard Iran as a legitimate business partner,” she stated. “The Islamic Republic is the number one state sponsor of terror. The greatest threat to stability in the Middle East, a brutal occupier abroad, and a repressive theocracy at home.”

German Green Party politician Volker Beck added that “the victims of the Assad regime are paying the price for this mistake.”

German exports to Iran increased by 19% in 2017, amounting to just under €2.4 billion (\$2.96 billion) in export volume. In 2016 German intelligence reports [revealed](#) that the Islamic Republic sought chemical and biological weapon technology in Germany. Germany intelligence last year reported that Iran [continued](#) seeking illicit nuclear and missile technology throughout 2016.

German Chancellor Angela Merkel said earlier this week that she was “shocked” about Saturday’s [chemical](#) attack in Syria.



Weapons of mass destruction in Iraq, chemical attack in Syria - reality or myth?

By Sawraj Singh

Source: http://www.pravdareport.com/opinion/columnists/13-04-2018/140724-syria_iraq-0/

Apr 13 – Western countries are making a lot of noise about the chemical attack in Syria. Without any solid proof, they have already blamed the Syrian government. This accusation brings back the painful memories of Western countries blaming Saddam for hiding weapons of mass destruction. This accusation was used as a justification for attacking Iraq. This attack can be called one of the biggest tragedies in modern history. However, no weapons of mass destruction have been found till today. This false western propaganda proved a blatant lie whose only purpose was to get rid of Saddam. The world is still paying dearly for this disaster in Iraq.

Western countries seem to be getting ready for another disaster of much bigger proportions in which not only Syria or the Middle East can be almost completely destroyed but it can endanger the whole world and the mankind. This time, it is not the West against a small country with a very limited capability to retaliate but is against a country which has more



advanced weapons and bigger stockpile of nuclear weapons than any of them. We can imagine what will happen if Russia decides to retaliate.

Western motives for blaming Syrian government for the chemical attack are far clearer this time than they were in Iraq. You have to be extremely naïve or stupid if you do not understand that Western countries just want to get rid of Assad rather than any of their concern for the Syrian people. The Iraqi or the Libyan people can very well tell us about the genuineness of Western concerns for them. They had to pay very dearly for the Western quest to get rid of Saddam and Gaddafi. Their countries have suffered tremendous destruction because of the Western intervention. Nobody had the power to stop the West from intervening.

However, things are very different now. The West cannot get away doing anything it wants to do. It will have to face the consequences of its actions. If the West inflicts serious damage to Russia's friends and allies in the Middle East then Russia can inflict even more serious damage to American friends and allies not only in the Middle East but in Europe also. Is the West prepared to pay such price? I feel that in the last two centuries the West has mostly inflicted pain on the others and has received very little pain. Things are very different now. The West may have to suffer equal or even more pain than it inflicts. I feel that the West is still not prepared to endure pain and will fall apart if it is made to suffer the pain it has inflicted on the others.

The West should understand that times have changed. It has to think about the consequences of its actions, something it did not have to do in the past. The new situation demands that it should very seriously think before it acts. I still remember the ad put up by the by the Family Planning Department extolling the Virtues of restraint for birth control many years ago. It said "Loop before you leap." I will like to give the same advice to the West today "Think before you act".

The West should not escalate the conflict as the situation can get out of control. Both sides do not want the situation to escalate to a full blown war between Russia and the West. However, once the armed conflict starts then it will be very difficult to contain it. The West seems to be considering a limited missile attack on Syria. Russia seems poised to shoot down the missiles. However, Russia is also considering retaliation against the target from which the missiles will be launched. Moreover, either side can accidentally escalate the conflict. The West should think of these catastrophic scenarios before exerting any military option. The West should also learn from its experiences in Iraq and Libya. In both cases it did not gain in the long run. Very few people in the West now seem to think that going in Iraq or Libya was the right thing to do. Unfortunately, we cannot undo what was done there. However, we can prevent a similar or worse disaster in Syria. Let all sides show restraint and moderation.

Sawraj Singh M.D. F.I.C.S. is Chairman, Washington State Network for Human Rights and Chairman Central Washington Coalition for Social Justice

Russia tested using door handles to deliver nerve agent before its agents attacked Skripal

Source: <http://www.homelandsecuritynewswire.com/dr20180413-russia-tested-using-door-handles-to-deliver-nerve-agent-before-its-agents-attacked-skripal>

Apr 13 – **The U.K. on Friday released previously classified intelligence that show that Russia had tested whether door handles could be used to deliver nerve agents and had targeted the email accounts of Sergei and Yulia Skripal since at least 2013.**

The door handle and email claims were made in a letter from Sir Mark



Sedwill, the U.K.'s national security adviser, to NATO secretary general, Jens Stoltenberg.

It is highly unusual for the U.K. to make such intelligence public, but the U.K. government appears to have concluded that such a move was necessary to counter the effective lies-and-disinformation campaign Russia has been conducting in an effort to deny its operatives has poisoned Skripel



and his daughter. The Russian disinformation campaign has found some support in far-right and far-left circles in the U.K.

The *Evening Standard* [reports](#) that in the letter, Sedwill, who has an overview of the work of all British spy services, filled in some of the intelligence that Prime Minister Theresa May referred to when she made a House of Commons statement saying Russia was highly likely to have been behind the attack.

Sedwill said the nerve agent novichok had been developed at the Russian research facility in Shikhany as part of an offensive chemical weapons program with the codename Foliant.

Sedwill said Russia regarded at least some of its defectors as “legitimate targets for assassination,” with the suggestion that they could include Skripal, a former member of the GRU, Russian military intelligence, who was convicted by Russia of espionage in 2004 after working for MI6.

“We have information indicating Russian intelligence service interest in the Skripals, dating back at least as far as 2013, when email accounts belonging to Yulia Skripal were targeted by GRU cyber specialists,” Sedwill wrote.

He also said: “During the 2000s, Russia commenced a program to test means of delivering chemical warfare agents and to train personnel from special units in the use of these weapons. This program subsequently included investigation of ways of delivering nerve agents, including by application to door handles. Within the last decade, Russia has produced and stockpiled small quantities of novichoks under the same program.”

He said Russia had continued developing small amounts of novichok over the past decade.

“Russia’s chemical weapons program continued after the collapse of the Soviet Union. By 1993, when Russia signed the chemical weapons convention (CWC), it is likely that some novichoks had passed acceptance testing, allowing their use by the Russian military,” he said.

“Russia’s CWC declaration failed to report any work on novichoks. Russia further developed some novichoks after ratifying the convention. In the mid-2000s, President [Vladimir] Putin was closely involved in the Russian chemical weapons program. It is highly unlikely that any former Soviet republic (other than Russia) pursued an offensive chemical weapons program after independence. It is unlikely that novichoks could be made and deployed by non-state actors (e.g., a criminal or terrorist group).”

The *Guardian* [reports](#) that **the Organization for the Prohibition of Chemical Weapons (OPCW), which is the UN chemical weapons watch dog, confirmed on Thursday that a novichok nerve agent had been used in the Salisbury attack.**

Sedwill wrote: “I would like to share with you and allies further information regarding our assessment that it is highly likely that the Russian state was responsible for the Salisbury attack. Only Russia has the technical means, operational experience *and* the motive.”

Experts note that the term “highly likely” is one commonly used by the intelligence agencies when they believe something is 100 percent certain – but they still use “highly likely” since they are not willing to express that opinion without a caveat in case of error.

“Russia has a proven record of conducting state-sponsored assassination,” Sedwill said, concluding: “There is no plausible alternative explanation.”

Anatomy of a Russian Chemical Weapons Lab Lie

By Adam Rawnsley

Source: <https://www.bellingcat.com/news/mena/2018/04/16/anatomy-russian-chemical-weapons-lab-lie/>

Apr 16 – If Moscow wants its Syrian allies to skirt the blame for chemical attacks, they’re going to have to come up with some better evidence than a few beakers and boilers in a dingy basement.

Adam Rawnsley is a Philadelphia-based reporter covering technology and national security. He co-authors FP’s Situation Report newsletter and has written for The Daily Beast, Wired, and War Is Boring.



Containers with chlorine from Germany, smoke bombs from UK's Salisbury found in E. Ghouta

Source: <https://www.rt.com/news/424581-chlorine-germany-bombs-uk-syria/>

Apr 19 – **Containers with chlorine from Germany and smoke grenades produced in Salisbury, UK were found in the liberated territories of Syria's Eastern Ghouta**, Russian Foreign Ministry spokesperson Maria Zakharova has stated.

"In the liberated areas of Eastern Ghouta, Syrian government troops have found containers with chlorine – the most horrible kind of chemical weapons – from Germany, and also smoke grenades produced – please pay attention [to this] – in the city of Salisbury, the UK," Zakharova told a news conference in Moscow on Thursday.

The findings undermine *"the faith in humaneness"* of some states' leadership, who *"give such orders and make such decisions,"* Zakharova added.

Prior to the alleged chemical incident in Douma, which was used by the US, the UK and France as a pretext for striking Syria last Saturday, Russia had repeatedly warned about possible provocations by the militants, according to the spokesperson. Moscow had also sent data to the Organization for Prohibition of Chemical Weapons (OPCW) on chemical-weapons production facilities in the liberated areas of Eastern Ghouta.

Western leaders' allegations that the Syrian government was behind the Douma attack were based on *"open sources"* and information on social media, including the reports of so-called civil defense group, the White Helmets. The group is believed to be linked to militants and operates in the areas under their control.

The airstrike occurred just ahead of the arrival of an OPCW fact-finding mission tasked with establishing whether any chemical attack had taken place. The team of chemical-watchdog experts still can't reach the site of the purported attack, as militants have hampered their work, according to Russian Deputy Foreign Minister Mikhail Bogdanov.

CBRN Defense Market SWOT analysis & Technological Innovation by Leading Industry Experts- Smiths Group, Argon Electronics, FLIR Systems, Bruker

Source: <https://opinioninvestor.com/cbrn-defense-market-swot-analysis-technological-innovation-by-leading-industry-experts-smiths-group-argon-electronics-flir-systems-bruker/347001/>

Apr 17 – Latest research study from HTF MI with title Global CBRN Defense by Manufacturers, Regions, Type and Application, Forecast to 2023. The Research report presents a complete assessment of the market and contains Future trend, Current Growth Factors, attentive opinions, facts, historical data, and statistically supported and industry validated market data. The study is segmented by products type, application/end-users. The research study provides estimates for **Global CBRN Defense** Forecast till 2023.

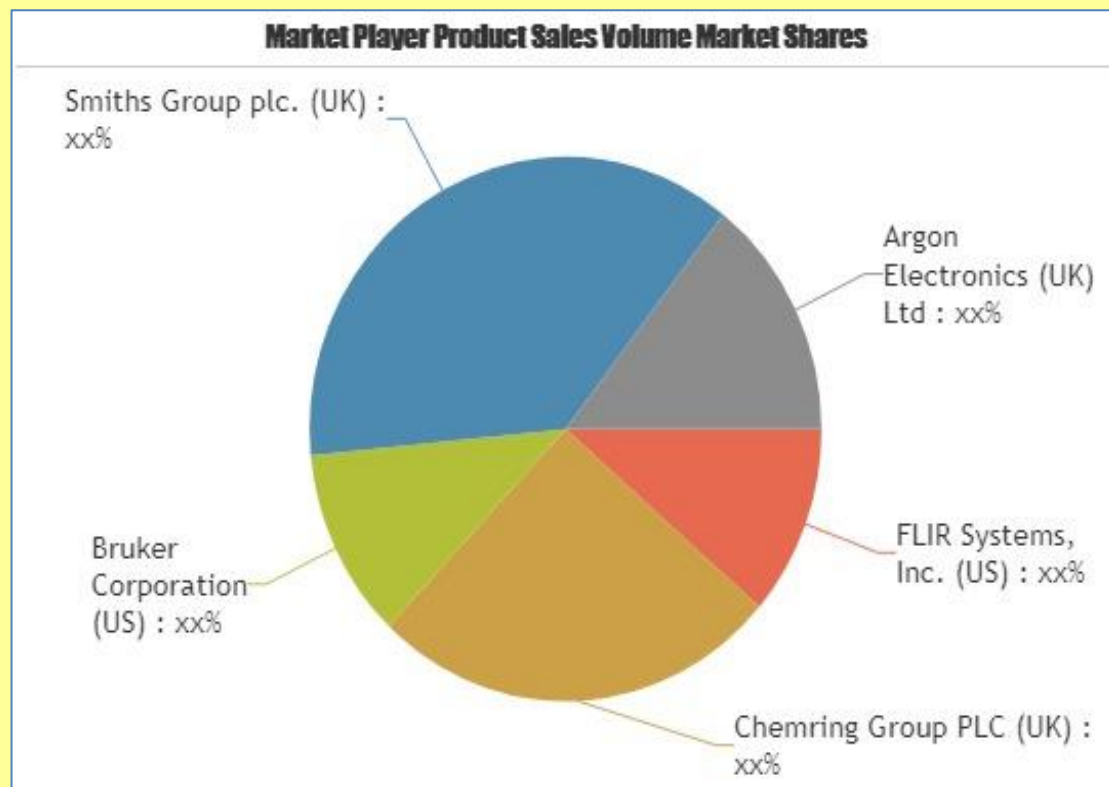
If you are involved in the CBRN Defense industry or intend to be, then this study will provide you comprehensive outlook. It's vital you keep your market knowledge up to date segmented by Applications Civil & Commercial & Defense, Product Types such as [Protective Wearables, Respiratory Systems, Detection & Monitoring Systems, Decontamination Systems, Simulators & Information Management Software] and some major players in the industry. If you have a different set of players/manufacturers according to geography or needs regional or country segmented reports we can provide customization according to your requirement.

The research covers the current & Future market size of the Global CBRN Defense market and its growth rates based on 5 year history data. It also covers various types of segmentation such as by geography [North America, China, Europe, Southeast Asia, Japan & India]. The market competition is constantly growing higher with the rise in technological



innovation and M&A activities in the industry. Moreover, many local and regional vendors are offering specific application products for varied end-users. On the basis of attributes such as company overview, recent developments, strategies adopted by the market leaders to ensure growth, sustainability, financial overview and recent developments.

Stay up-to-date with CBRN Defense market research offered by HTF MI. Check how key trends and emerging drivers are shaping this industry growth as the study avails you with market characteristics, size and growth, segmentation, regional breakdowns, competitive landscape, shares, trend and strategies for this market. In the Global CBRN Defense Market Analysis & Forecast 2018-2023, the revenue is valued at USD XX million in 2017 and is expected to reach USD XX million by the end of 2023, growing at a CAGR of XX% between 2018 and 2023. The production is estimated at XX million in 2017 and is forecasted to reach XX million by the end of 2023, growing at a CAGR of XX% between 2018 and 2023.



Request Sample of Global CBRN Defense Market Professional Survey Report 2018
@: <https://www.htfmarketreport.com/sample-report/1092365-global-cbrn-defense-market-4>

Key questions answered in this report – Global CBRN Defense Market Professional Survey Report 2018

What will the market size be in 2023 and what will the growth rate be

What are the key market trends

What is driving Global CBRN Defense Market?

What are the challenges to market growth?

Who are the key vendors in CBRN Defense Market space?

What are the key market trends impacting the growth of the Global CBRN Defense Market ?

What are the key outcomes of the five forces analysis of the Global CBRN Defense Market?

What are the market opportunities and threats faced by the vendors in the Global CBRN Defense market? Get in-depth details about factors influencing the market shares of the Americas, APAC, and EMEA?



Where will the next chemical weapons attack take place?'

Source: <http://www.israelnationalnews.com/News/News.aspx/244660>



Apr 19 – Ambassador Nikki Haley, U.S. Permanent Representative to the United Nations, delivered remarks on Wednesday at a UN Security Council briefing on an Organization for the Prohibition of Chemical Weapons (OPCW) report on the [chemical weapons attack](#) in Salisbury, United Kingdom.

“Last week, the Council met five times to discuss the chemical weapons attack in Douma. Today, we are here yet again talking about chemical weapons. This time, it’s about a military grade nerve agent used against two people on British soil. In the constant push of meeting after meeting here in this chamber, it’s easy to lose track of what this means. We are rapidly confronting a frightening new reality. If chemical weapons can appear in a small English town, where might they start appearing next?”

“I will not engage in an argument over self-evident facts. I will not trade accusations of shameful behavior with those who have no shame. I will not waste this Council’s time. I will say only this: the Organization for the Prohibition of Chemical Weapons has released an independent report that confirmed the United Kingdom’s lab analysis of the toxic chemical that was used in Salisbury. Three people were seriously injured. Hundreds were exposed. This act was brazen, and in complete defiance of the international consensus against the use of chemical weapons. As we have stated previously, the United States agrees with the UK’s assessment that Russia is responsible for the chemical weapons in Salisbury.”

“There is nothing more troubling than the idea that the use of a weapon of mass destruction becomes routine. **Last year it was Malaysia and Khan Sheikhou. Last month it was Salisbury. Last week it was Douma.** If we don’t come together – soon – and take a firm, unequivocal stance against this deadly trend, the next attack will come. And it could very well come closer to home for one of us.”

EDITOR’S COMMENT: Right answer: “Anywhere you decide Mrs Ambassador” ...



As Lies on Syrian Gas Attack Unravel, US and UK Shift to Claims of Russian “Cyber War”

Source: <https://www.globalresearch.ca/as-lies-on-syrian-gas-attack-unravel-us-and-uk-shift-to-claims-of-russian-cyber-war/5636801>

Apr 19 – On Monday, the US and British intelligence agencies released a joint report charging Moscow with unspecified “cyber warfare” against the West. The American media was filled with hysterical warnings that Russia may have hacked “millions” of personal devices as well as critical infrastructure.



The tenor of the media coverage was epitomized by the *New York Times*, which labelled the intelligence agencies' report a “computer-age version of a Cold War air raid drill, but asking citizens to upgrade their password rather than duck and cover.”

The coordinated campaign comes amid the unravelling of the official

pretext for Friday night's illegal US-British-French bombing of Russia's ally Syria—the claim that the Assad government carried out a chemical weapons attack in eastern Ghouta on April 7.

On Sunday, the *Independent* published an on-the-spot report by well-known veteran journalist **Robert Fisk**, an expert on Middle East policy, who visited Douma, the town in Ghouta where a gas attack supposedly occurred.

Fisk spoke with **Dr. Assim Rahaibani**, who works at the medical clinic where the widely publicized videos were filmed showing children being hosed down with water, ostensibly to relieve poison gas inhalation. He quotes Rahaibani as follows:

“I was with my family in the basement of my home three hundred metres from here on the night, but all the doctors know what happened. There was a lot of [government] shelling and aircraft were always over Douma at night—but on this night, there was wind and huge dust clouds began to come into the basements and cellars where people lived.

“People began to arrive here suffering from hypoxia, oxygen loss. Then someone at the door, a ‘White Helmet,’ shouted ‘Gas!,’ and a panic began. People started throwing water over each other. Yes, the video was filmed here, it is genuine, but what you see are people suffering from hypoxia, not gas poisoning.”

This account is in line with statements by Russian authorities, who have charged that the White Helmets, the anti-Assad “rebel” organization funded by Britain, staged the gas attack under orders from UK intelligence to provide its Western sponsors with a pretext for intervention. Fisk notes that by the time he arrived in Douma, the White Helmets had already left to join fighters of the Islamic fundamentalist group Jaysh-al Islam, who fled Douma for Idlib under an agreement brokered with Russia.

Fisk's report is a devastating exposure of the lies of the governments of France, Britain and the US, which have provided no evidence to substantiate their charges against the Assad regime. The imperialist governments' narrative was immediately disseminated by a corrupt media that functions shamelessly as a propaganda arm of the state.

As the *World Socialist Web Site* insisted from the outset, the incident was a CIA-organized provocation to provide a pretext for imperialist intervention, continuing the seven-year-long US regime-change operation against Russia's ally Assad, during which time Washington has armed and funded right-wing Islamist proxies.



Fisk's report is at the same time a damning indictment of the corporate media, along with various pseudo-left organizations, such as the International Socialist Organization, which regurgitated all of the governments' lying pretexts and made no effort to investigate them. The media has responded to Fisk's report by burying it. In the 24 hours since its publication, neither the *Washington Post* nor the *New York Times*, which in 2005 called Fisk "probably the most famous foreign correspondent in Britain," has reported on Fisk's on-the-spot story.

The US government responds to each exposure of its lies by concocting new ones. The chemical weapons charge followed directly after the collapse of the unsubstantiated British and US claims that Russia carried out the attempted assassination on British soil of its former agent **Sergei Skripal** and his daughter **Yulia**, using a nerve agent. Both Yulia and Sergei are now on their way to a full recovery despite having supposedly been poisoned with the most fatal military-grade agent in existence.

Yesterday's report by the FBI and the UK's National Cyber Security Centre (NCSC), "Advisory: Russian State-Sponsored Cyber Actors Targeting Network Infrastructure Devices," is no more credible. Like previous charges levelled by the intelligence agencies against Moscow, there is not a single piece of evidence contained in the document to back them up.

Out of its 21 pages, approximately 15 provide generic information about computer network security flaws commonly exploited by what the report refers to as "cyber actors." They give generic advice for users and network administrators to improve digital security. These include not using "the same password across multiple devices," avoiding unencrypted communication protocols, and replacing outdated hardware and security software.

The first six pages include the only references to Russia, but provide no details, much less evidence, of any specific activities. Every one of the charges against Moscow begin with phrases such as: "FBI and NCSC have high confidence that"; "the US and UK governments assess that"; they "have received information from multiple sources that..." etc.

None of this has prevented the media in both the US and UK from dutifully amplifying the latest charges. A front-page article published by the *New York Times*, "US-UK Warning on Cyberattacks Includes Private Homes," cites the comments of **Rob Joyce**, a special assistant to the president and cybersecurity coordinator for the National Security Council, declaring that Russians are "seeking to exploit the increasing popularity of Internet-connected devices" that "you and I have in our homes."

Revealing more than it intended, the article states that the government document "had been in the works for a long period" and was "not a response to any recent events." In other words, the intelligence agencies were awaiting the opportune moment to publish it. Its release serves several purposes.

First, to create a mood of panic in the population so as to facilitate a major escalation of the confrontation with Russia. Second, to counter the popular distrust in the media and disbelief of what is widely seen as the latest pretext for yet another war against a Middle Eastern nation, and, third, to suppress anti-war sentiment and legitimize the crackdown on democratic rights and censorship of the Internet, under the banner of combating Russian cyber warfare and "fake news."

The connection between the drive to war and Internet censorship was made clear by the statements of Pentagon officials following the attack on Syria. US **Defence Secretary James Mattis** warned Friday that there would be a rise in Russian "disinformation" in response to the US and allied strikes. Pentagon spokeswoman Dana White stated that Russian claims that Syrian air defence missiles had shot down 71 of the 105 missiles fired on Syria were part of a disinformation campaign "that has already begun." She said there had been a "2,000 percent increase in Russian trolls" over 24 hours.

These claims are aimed at identifying any statements that contradict the official narrative of the US government and military as foreign "disinformation" and essentially treasonous.

The FBI report is no doubt also aimed at fuelling the ongoing campaign by the intelligence agencies and the Democratic Party demanding that Trump further escalate the confrontation with Russia. The *Times* and the other Democratic Party-aligned media denounced the Trump administration's announcement yesterday that the US will not at this time impose further sanctions on Russia, contradicting the statements of **Nikki Haley**, the US ambassador to the United Nations, over the weekend.

The *Times* quoted Democrat **Eliot Engel** of the House Foreign Affairs Committee, who said,



"I am outraged that President Trump pulled back sanctions on Russia for its support of the Assad regime." *Times* columnist **Nikolas Kristof**, who has made his career promoting imperialist wars in the name of "human rights," praised the arch-reactionary Haley against Trump in an appearance on MSNBC, declaring that she was "much better regarded than almost any other member of the administration in foreign policy."

Malaysian Hacker Publishes Proof of Khan Shaykhun Attack Planning

Source: <https://www.veteranstoday.com/2017/04/13/malaysian-hacker-publishes-proof-of-khan-shaykhun-attack-planning/>



Today, on April 13, [Middle East Panorama](#) published an article, related to the fact that the chemical attack in Khan Shaykhun was staged by the White Helmets

Tuesday, April 4, the White Helmets activists reported the chemical attack in the town of Khan Shaykhun of Idlib province. The national coalition of the Syrian opposition and revolutionary forces was the first to report 80 dead and 200 injured.

In fact, this chemical attack was a premeditated false flag operation aimed to blame the Syrian president Bashar al-Assad for using chemical weapons against civilians.

A lot of high-ranking opposition journalists took part in this bloodcurdling staging that involved slain and drug intoxicated children and adults.

The high-quality performance was covered by the Smart News Agency and Edlib Media Center. The world's mainstream media immediately reported this staged attack.

Moreover, photos taken from the stage were immediately posted on Twitter and Facebook and shared by the White Helmets activists and popular opposition bloggers. This plot is



proved by correspondence between Mustafa al-Haj Yussef, one of the White Helmets leaders, and Sakir Khader, a well know photographer.

JAslrX, a Malaysian hacker, has published a letter on his blog that reveals preparations for [filming](#) the damage of the alleged chemical attack. The hacker has promised to publish more information on the activity of the Syrian opposition and collaborating with it NGOs.

FALSE FLAG CHEMICAL ATTACK ON KHAN SHAYKHUN

I decided to show you one letter from White Helmets leader Mustafa al-Haj Yussef to Syrian opposition journalist Sakir Khader. It looks as if they knew in advance about the events happened April 4 in Khan Shaykhun. Apparently the chemical attack in Idlib Province was a well-prepared staging.



“one letter from White Helmets leader Mustafa al-Haj Yussef to Syrian opposition journalist Sakir Khader”

Thus, the revealed information demonstrates once again that there are various opposition groups who are behind such provocations. It's worth thinking about who may benefit from this chemical attack. In the context of progress in the Syrian crisis political settlement, it is advantageous only for those who don't want the Syrian conflict to end.

Douma safe for press visits, not safe for UN chemical inspectors

Source: <http://www.arabnews.com/node/1288541/middle-east>

Apr 20 – Journalists working in Syria's capital Damascus were treated to an organized visit to the opposition enclave of Douma.

Members of the press toured and photographed deserted areas of Douma which has been held by opposition groups for the last seven years. The government invited international news agencies to tour the devastated neighborhood of Damascus that witnessed the birth of the revolution against Assad's rule in 2011.

Chemical weapons inspectors meanwhile are still awaiting the green light to access areas where chemical attacks were carried out on the 7th April, and which led to the evacuate the enclave.





Photo showing people in the streets of Douma during a press visit organized by Assad regime, April 20, 2018. (AFP)



Photo showing people in the streets of Douma during a press visit organized by Assad regime, April 20, 2018. (AFP)





Photo showing devastated streets of Douma during a press visit organised by Assad regime, April 20, 2018



Photo showing a girl carrying her toddler brother in the devastated town of Douma, during a press visit organised by Assad regime, April 20, 2018. (AFP)

Russian Federation dismisses chemical watchdog's spy poisoning probe as 'strange'

Source: <http://theafricom.com/2018/04/21/russian-federation-dismisses-chemical-watchdogs-spy.html>

Apr 21 – The head of the designated OPCW lab said that the nerve agent mentioned by Lavrov was in its control sample and had "nothing to do with the samples collected" at the site of the Skripals' poisoning.

Decontamination work is due to start at nine locations in Salisbury where experts believe the nerve agent may still be present.



Mysterious partner of Salisbury Novichok victim Yulia Skripal 'goes into hiding' amid claims he is a spy for Vladimir Putin's FSB intelligence service

Source: <http://www.dailymail.co.uk/news/article-5642691/Yulia-Skripals-mystery-partner-goes-hiding-mother.html>

Apr 21 – The mysterious fiance of Salisbury attack victim Yulia Skripal allegedly works for a shadowy organisation which is part of [Vladimir Putin](#)'s feared FSB intelligence service, The Mail on Sunday has learned.

Stepan Vikeev – seen clearly for the first time in our exclusive picture – vanished after Yulia and her double agent father Sergei Skripal were poisoned with a [Russian](#) nerve agent last month.

Moscow security sources have claimed Mr Vikeev, 30, works for a secretive company called the Institute of Modern Security Problems. The clandestine organisation is run by his mother Tatiana, 61, and is said to be an 'integral part' of the FSB, which replaced the KGB at the end of the Soviet Union.



Stephan Vikeev, left, partner of Yulia Skripal, has gone into hiding along with his mother Tatiana, right, following the attempted assassination in Salisbury



Yulia Skripal, left, and her father Sergei, both survived an attempted assassination which has been blamed on Russian security services who used a nerve agent Novichok

Both Mr Vikeev and his mother – also pictured exclusively today – have gone into hiding since the Skripal attack and are being protected by Putin's agents, according to well-placed sources.

FSB commanders have even blocked access to Moscow authorities who want to interview Mr Vikeev as part of a Russian probe into the case, it was

claimed. Our disclosures deepen suspicions that Mr Vikeev and his mother had a role in the Skripal poisoning which Britain has blamed on Russia.

A UK intelligence dossier recently revealed Russian hackers had spied on Yulia's emails since 2013 in a bid to track her and her father's lives.

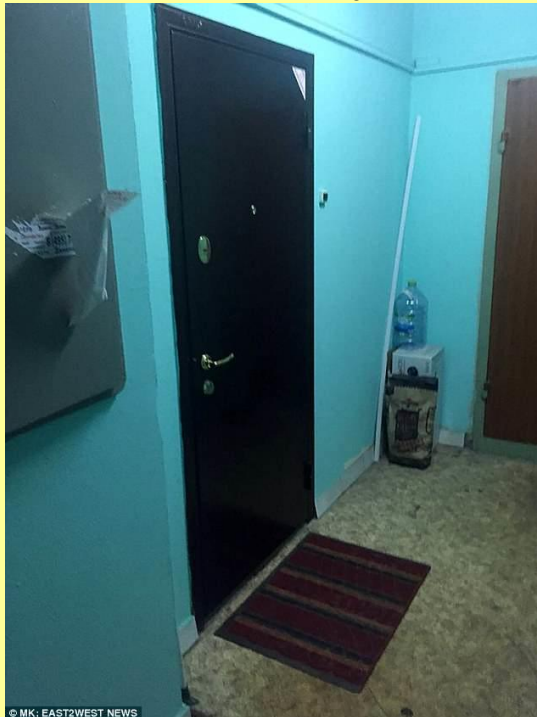


Now Mr Vikeev's links to the FSB raise the prospect that he was a 'honeytrap' planted to keep a close eye on Yulia and her 'traitor' father after he was sent to the UK in a spy swap deal in 2010.

Sources said Mr Skripal, 66, was not fond of Mr Vikeev. A source close to the family said: 'Sergei had reservations about Stepan but she told her father she wanted to be with Stepan.' But Mr Vikeev has made no contact with his fiancée and her family since the attack.

Miss Skripal, 33, was left very upset when she attempted to call Mr Vikeev but he did not answer his phone after she made a remarkable recovery in hospital.

She was discharged from hospital earlier this month and is being guarded by police in a secret location in Britain. She is expected to be granted political asylum to stay in the UK.



© MK: EASTWEST NEWS

Her father – a Soviet military intelligence officer who was jailed for selling secrets to MI6 – remains in hospital but he is no longer in a critical condition.

Vikeev and Yulia Skripal rented this flat in Moscow together before the attempt on her life

It emerged yesterday that key suspects have been identified by Scotland Yard investigators examining passenger lists from flights in and out of Britain around the time of the attack.

Miss Skripal's friends and family have described Mr Vikeev as 'strange,' and they have been alarmed by his complete lack of contact with his fiancée or her family since the poisoning.

Miss Skripal's best friend Irina Petrova said she used to complain she was often home alone at night because Mr Vikeev worked night shifts at a 'special government organisation.'

Neighbours at the flat in Moscow where the couple lived said Mr Vikeev's mother was a regular visitor before Miss Skripal's ill-fated trip to visit her father in

Salisbury last month.

Miss Skripal and Mr Vikeev had recently celebrated his 30th birthday together and he was the last person to talk to her on the phone from her aircraft as she prepared for take-off in Moscow.

Mr Vikeev deleted his social media profiles and pictures soon after the poisoning on March 4. Friends said he 'went into hiding'.

One close acquaintance said: 'No one saw him and he stopped communicating. He did not answer calls or text messages.'

The FSB is seen as being behind several assassinations of President Putin's enemies, including former spy Alexander Litvinenko who was killed in London in 2006 by polonium poisoning.

Britain has claimed the Skripals were poisoned with a Novichok nerve agent developed in Russia.

The Kremlin has strongly denied any involvement in the Salisbury attack and launched its own probe into the case led by the Investigative Committee, which is Russia's equivalent of the FBI.

Several sources said the Committee know the whereabouts of Mr Vikeev and his mother in the suburbs of Moscow, but have failed to obtain permission from the FSB to quiz them.



ICI
International
CBRNE
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BIO NEWS



DHS and EPA Are Prepared to Restore **Subways** in the Event of a Bioterrorist Attack

Source: <https://newswise.com/articles/dhs-and-epa-are-prepared-to-restore-subways-in-the-event-of-a-bioterrorist-attack->

Mar 28 — Only a week after the terrorist attacks of September 11, 2001, envelopes containing anthrax spores were sent to several media companies and two senators. As a result twenty-two people were infected and five died. Since these



incidents, the U.S. has increased its efforts on measures countering bioterrorism. That incident stemmed from spores sent to individuals and offices where the reach was somewhat contained. Imagine if the spores had been taken onto a mass transit platform...like the subway. A subway incident can bring a whole city to a halt, and the effects can last much longer in the form of lingering fear and mistrust.

The Department of Homeland Security (DHS) [Science and Technology Directorate](#) (S&T) completed in September 2017, a four-year [Underground Transport Restoration](#) project in collaboration with the Environmental Protection Agency (EPA)'s [Chemical, Biological, Radiological, and Nuclear](#) (CBRN)

Consequence Management Advisory Division (CMAD) and National Homeland Security Research Center (NHSRC). S&T and EPA conducted studies and performed exercises to see how disease-causing microbes spread through subway systems; how they can be sampled and cleaned; and how long it takes to be cleaned.

"The purpose of the project is to help develop the tools and techniques necessary for the rapid return of service to the subway system after it has been contaminated with a biological organism such as *Bacillus anthracis* (*B. anthracis*), while reducing the impact on humans and the environment," said Shannon Serre, chemical engineer and manager of the project at EPA.

The initial work started in late 2011; lab experiments launched in 2013, and three field study events were completed between 2015 and 2016.

The first field event was at Sandia National Laboratories in California. In a subway car wrapped in plastic, EPA and S&T placed samples of various interior subway-car materials with spores of non-disease causing anthrax used for vaccination. "This strain mimics more closely the toxic strain used in the 2001 anthrax attacks, which is difficult to inactivate," said Serre. "If we can kill *B. anthracis*, we can kill other pathogens such as the Ebola virus."

Anthrax bacteria spores are dormant bacteria with a tough coating, which can keep them alive for several decades while enduring unfavorable environmental conditions. In contrast, viruses cannot survive long outside living organisms. "We have successfully applied the anthrax technology that we have developed to Ebola and other pathogens," said Mike Nalipinski, associate director at EPA's CBRN CMAD.

In this field test it took the EPA more than 36 hours to kill anthrax spores in most materials in the subway car.



The second field test, led by MIT Lincoln Laboratory, occurred in May 2016. It focused on demonstrating and determining how aerosolized bacterial spores could contaminate a subway system. The researchers released sugar molecules (maltodextrin), similar in size to anthrax bacteria, and nontoxic gas



(perfluorocarbon) into the fully operational New York City subway. EPA's On Scene Coordinators from around the country provided operational support by collecting more than 8,000 samples from subway cars, platforms and tunnels during the weeklong event.

The results helped validate and improve previously developed dispersion models for predicting air flow during a biological incident. Such models can help response teams rapidly isolate contaminated sections of a subway to minimize spread and human impact. Results would also improve plans for placing biological agent sensors and will allow the EPA to develop better plans

for response, decontamination and recovery from such incidents.

The third field test took place in a mock subway system at [Fort A.P. Hill](#) military base in Virginia. Since the facility is only three years old and lacks the typical dirt and grime present in real subways, scientists had to create a recipe for grime, which S&T research developed several years ago.

"We did not want to destroy their clean facility by putting grease and grime all over the place," laughed Serre. "So we took one foot squares of concrete, ceramic tile, subway ballast and other material, similar to what you would find in a real subway system, and put grime on them. The reason we do this is because grime may impact the effectiveness of the chemicals that are used in the decontamination process."

Examples of research from this field study include – spraying and fogging techniques with various disinfectants for surface treatment for porous and nonporous materials, and waste disposal considerations. The findings of this study identified specific tactics that would be useful for first responders and other national agencies if a subway system were contaminated and a response was required.

Although the anthrax spores that were used could not cause sickness, participants needed to mimic realistic conditions as much as possible. They wore full protective gear, including Hazmat suits and respirators to determine how long it takes to put them on and work comfortably in a biological hot zone and chemical vapors, and how long it takes to disinfect the suits and remove them. This timekeeping will help estimate the time necessary to restore a subway environment in full gear. "Obviously, it is a lot more difficult to go in when you have a Hazmat suit and respirator on, and do your sampling," said Serre.

The results of these studies and exercises showed how long an actual treatment would take and will help with guidance procedures in the event of a biological incident in a subway system.

S&T and EPA are hoping to do another joint project, this time in an outdoor complex urban area like New York City.

"Airport-like security would inhibit the movement in a subway," said Donald Bansleben, who is a program manager for response and recovery projects at S&T. "The subway is like the artery of the city - people going to work, kids going to school, tourists going sightseeing; it is

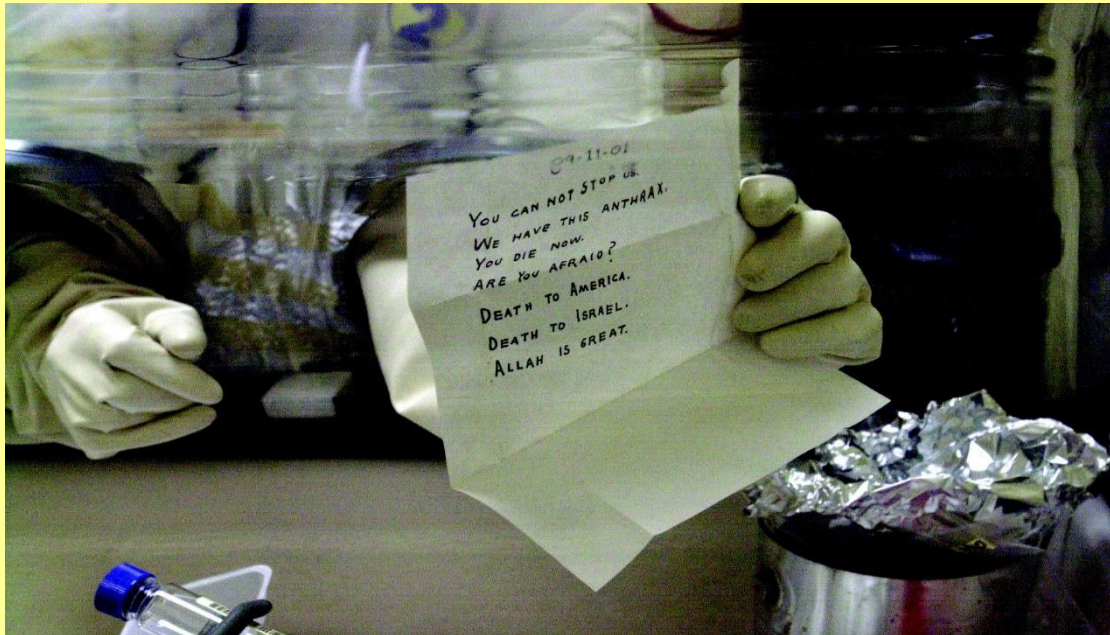


so important to the local, regional and national economies. And yet, it is so easy for someone to walk in and do damage. We must be ready to take action to ensure the safety and resiliency of the nation.”

Biosecurity Evolving as Cyber Threats Converge

By Randall Murch

Source: <https://www.hstoday.us/subject-matter-areas/wmd/biosecurity-evolving-cyber-threats-converge/>



Mar 26 – For global, national and homeland security, biosecurity represents an important component, one that has many dimensions both traditional and emerging. In this inaugural article on biosecurity, I seek to provide a foundation and a peek at one emerging, new opportunity space.

A Brief Historical Foundation

There have been many articles, chapters and books written on the history of biological weapons and their use. To build our base, we need not revisit or regurgitate these at length. Suffice it to say that the basic knowledge, technology and opportunities to use pathogens and biological toxins as weapons have been known for centuries. Historical episodes include the invading Mongols [flinging diseased corpses](#) over the city walls of Caffa (in what is now Crimea) in 1346 to infect, kill and weaken resistance to their siege; the British Army [providing](#) smallpox-infested blankets to Native Americans in 1763-64 in order to save Fort Pitt from successful attack; the infamous Japanese Army Unit 731 [activities](#) in Manchuria prior to and during World War II, which included the testing of biological weapons and delivery methods on local populations; the extensive Soviet biological weapons [program](#) that was publicly revealed through investigations by Western scientists and defectors from the program. This program was active while the world was wrestling with the [Biological Weapons Convention](#), the primary international treaty governing the possession, development and use of dangerous pathogens and toxins as weapons. (The Soviets were participating in these negotiations and signed the agreement.) United Nations Security Council [Resolution 1540](#) is the other key international agreement governing biological weapons, as well as other WMD. The U.S. has and does actively keep to the provisions of these documents and participates with the UN and member states in their enforcement and advancement.

The Emergence of Biosecurity

One could argue that the U.S. as a nation formally entered the biosecurity domain from the homeland security perspective with the issuance of Homeland Security Presidential Decision Directives [9](#) and [10](#), although there were programs being stood up or morphed from legacy programs before that time. Many government programs and policies have emerged from



these directives, as well as laws and regulations being enacted. The impact of the Anthrax mailing cases of 2001 is well-known.

For the purpose of common terms of reference, biosecurity can be defined as:

- ◆ Procedures or measures designed to protect the population against harmful biological or biochemical substances (English Oxford Living Dictionary);
- ◆ Security against the inadvertent, inappropriate, or intentional malicious or malevolent use of potentially dangerous biological agents or biotechnology, including the development, production, stockpiling, or use of biological weapons as well as outbreaks of newly emergent and epidemic disease (U.S. National Academies)

Biosecurity has many dimensions and facets and possesses a substantial dynamic range. It is not just worrying about the use of anthrax (*Bacillus anthracis*) against humans or their environments. Many pathogens that cause disease in humans, animals and plants are available to be considered or used as weapons. Bioterrorism can target one individual, such as a VIP, or a large population with intended specific or broad outcomes. Pathogens can be acquired from nature or a laboratory that studies infectious diseases. An adversary can be unsophisticated and lucky or sophisticated and clever, whether a “lone wolf” with access to open-source information and simple equipment or a team of experts in a well-resourced, sophisticated biocontainment laboratory.

The planning and execution of an attack can avoid detection through simple security measures or highly advanced and layered technical and operational security approaches. Facilities and equipment used can be crude and inexpensive or highly advanced and expensive. Infectious disease outbreaks can appear as natural events while actually nefariously purposed. Humans can be targeted in a multitude of ways but also valuable animals and plants can be as well. Attacks can inflict death and disease on thousands or more, or target agriculture or food and result in massive economic damage and kill no one.

Biosecurity encompasses the scientific and technological, policy, procedure, practice, preparedness and response, communication and education dimensions of legitimate (protect, foster yet monitor, educate and regulate) and illegitimate (protect against, prevent, mitigate and reduce risks) activities related to research, development, test, validation, and materials transfer related to “dual use” science and technology as it pertains to inflicting harm through and on biological systems. “Dual Use”, also expressed as [“Dual Use Research of Concern.”](#) refers to science and technology that can be used both for legitimate and beneficial purposes, as well as those that are deemed illegitimate, harmful and malicious.

The “dual use” conundrum is an important ingredient in biosecurity. As it applies to pathogenic microorganisms and biological toxins, virtually all life science knowledge and technology can be used for both beneficial and nefarious purposes. Breakthroughs in understanding the disease-causing properties and mechanisms of pathogens can help to develop new medical countermeasures or therapies. Concomitantly, those breakthroughs can also inform how to circumvent antimicrobial resistance or immunological response. The use of advanced genetic engineering techniques to confer resistance to devastating pathogens of high-value crops can also be used to understand how to circumvent resistance and engineer new generations of pathogens. With the accelerating pace of new technologies that apply to the life sciences, “dual use” is becoming more complex and challenging.

The Focus of Biosecurity is Changing

To this point, biosecurity attention has been largely focused on securing and limiting access to pathogens and the byproducts (i.e., biological toxins). The most prominent pathogens and toxins of concern are captured in various government [lists](#). Over the past 14 years, the emergence of broadening concern is the misuse of science to create more worrisome pathogens or problematic situations that resulted from a lack of governance schema. The National Academies of Science, Engineering and Medicine have issued a number of reports focused on some aspect of biosecurity (search at www.nap.edu, including the landmark report “Biotechnology Research in an Age of Terrorism” published in 2004). The [National Science Advisory Board on Biosecurity](#) was stood up to specifically aid in addressing a range of associated biosecurity concerns and risks, such as through policy recommendations, practices and education. Biosecurity and biosafety prescriptions have been enacted and are enforced and will remain important pillars in the U.S. program, as well



as elsewhere. International engagement to reduce and redirect the former Soviet Union's biological weapons programs has evolved to capacity-building programs, such as with the (DoD) Defense Threat Reduction Agency's [Cooperative Biological Engagement Program](#) and the Department of State's [Biological Engagement Program](#). Both incorporate biosecurity into training and improving public health laboratories across the globe. Yet, even with all of this, biosecurity is rapidly morphing and evolving.

New Emerging Concerns for Biosecurity

The landscape of biosecurity is morphing quite dramatically in the 21st century, largely because of the rapid advent of new life science knowledge, science and technology and the wide availability of such, coupled with the greater ability to understand how these can be accessible, adapted and applied for misuse. Examples of the newest generation of technologies that warrant close attention for possible unauthorized, illicit and nefarious use include genetic engineering technologies like [gene editing tools](#) such as [CRISPR/Cas9](#), expanding reliance on “big data,” which is generated from genomics and systems biology [analyses](#) from [bioinformatics](#) applications and, more recently, [artificial intelligence](#). Most recently, awareness is being raised about [life science](#) and medical infrastructure and instrumentation that is cyber-supported. Automated, high throughput and [robotic](#) laboratory instrumentation, robotic surgical systems and advanced biomanufacturing facilities, [among others](#) of this sort, also provide substantial benefits but may produce concerns as to other vulnerabilities that should be addressed. All of these require new, multidisciplinary and integrated approaches to addressing the expanding pantheon of biosecurity and dual-use issues and concerns.

Cyberbiosecurity: Bringing Biosecurity and Cybersecurity Together

“Cyberbiosecurity” is being proposed as an emerging hybridized discipline at the interface of cybersecurity, cyber-physical security, the life and biomedical sciences and biosecurity. Initially, my colleagues and I define this term as “understanding the vulnerabilities to unwanted surveillance, intrusions, and malicious and harmful activities which can occur within or at the interfaces of comingled life and medical sciences, cyber, cyber-physical, supply chain and infrastructure systems, and developing and instituting measures to prevent, protect against, mitigate, investigate and attribute such threats as it pertains to security, competitiveness and resilience.” This is an initial definition. The definition and the landscape will rapidly evolve, requiring revisions.

Cyberbiosecurity also contributes to a larger [strategic objective](#) of “[Safeguarding the Bioeconomy](#),” being advanced by the [Federal Bureau of Investigation](#), which seeks to [increase security](#) and resilience of the bioeconomy, including to protect its rapidly changing cyber-life science topology. For the U.S., as the FBI defines it, the bioeconomy accounts for an estimated \$4 trillion annually, nearly 25 percent of GDP. That definition and the economic contribution encompasses from pharmaceuticals to renewable energy and new materials, from environmental remediation to public health resilience, and from agriculture to the response to emerging infectious diseases. As part of the U.S. national security architecture, “safeguarding the sciences” is a high priority, as well. In our view, the cyberbiosecurity perspective should be incorporated.

Beginning to understand the facets and boundaries of cyberbiosecurity can be informed by the review of a [report](#) on “Big Data” and the implications for national security, short articles on the security implications of [connected biolabs](#), [genomics](#) and artificial intelligence, problems with [cyberinfrastructure](#) and biotechnology labs and [cyberbiosecurity](#) from the biotechnology perspective. Prescriptions and solutions are likely to include science and technology, operational practices, standards or guidelines, regulations and bringing disparate communities and stakeholders together in various ways and means. When cyberbiosecurity is fully developed, it could potentially reach far, wide and deep.

Lean Forward, Embrace the Inevitable

Life science knowledge and technology is accelerating rapidly, will continue to do so for the foreseeable future and touches nearly every aspect of our existence. On one hand, advancements provide great value and benefit for exploration and learning, personal and societal medicine and health, advancements in agriculture and the food supply, new



materials and fuels and managing natural resources and environmental protection. With the benefits come the risks; we must be prepared for both.

As part of our evolution, we must anticipate and adapt to new threats that result from the exploitation of new and converging technologies, expertise and threats. The life and biomedical sciences are heavily supported and enabled by information systems and infrastructure in many ways, which will only expand. The security interfaces, overlaps and gaps between life, biomedical sciences and information sciences and cyber technology, with the perspectives of biosecurity and cybersecurity, are just being realized. Cyberbiosecurity could be the next biosecurity frontier, but will take a different form and circumscribe different constituencies than what has existed to date.

Randall (Randy) Murch is a Research Lead and Professor of Practice at Virginia Tech – National Capital Region, where he has been since December 2004. Prior to that, he was a Research Staff Member, Institute for Defense Analyses for two years, where he conducted studies and analyses for the U.S. national security community. He was a Special Agent and Senior Executive, Federal Bureau of Investigation, from January 1980 to November 2002. While at the FBI, he served in three field offices, several assignments in the FBI (Forensic) Laboratory, several assignments in the FBI's technical surveillance program and was detailed to the Defense Threat Reduction Agency. He was responsible for many investigations, new technology development programs, conducting and supporting many technical investigations and operations, and managing complex mission-oriented programs and technical organizations, and had extensive collaborative engagements with other U.S. Government Agencies and friendly foreign governments. While he was SES, he initiated and oversaw the creation of the U.S. and first-ever Weapons of Mass Destruction forensic investigative program and has remained active in the biological component since his retirement. At Virginia Tech, Murch focuses on research, development, capability transition as well as strategic program development in advanced forensic science, biosecurity, cyberbiosecurity, biosurveillance, biological threat reduction and integrated capacity building at the interfaces of science and technology, operations, intelligence and investigations, policy and law. He has been loaned for IPA assignments to the Department of Homeland Security and Department of Defense as a senior advisor since he has been at Virginia Tech. For over 15 years, he has served on senior advisory groups for the U.S. national security community and on boards and committees for the U.S. National Academies. He has published in a variety of journals, published invited book chapters, has made numerous invited presentation throughout the U.S. and internationally, has testified in U.S. courts of law as an expert witness approximately 110 times and before the U.S. Congress on several occasions. He holds a BS from the University of Puget Sound, an MS from the University of Hawai'i at Manoa and a PhD from the University of Illinois at Urbana – Champaign, all in the Life Sciences.

Pandemic Pandemonium Would Lead to Emergence of a New World

By Mitchell Simmons

Co-author: Charles W. Stiles, Captain

Source: <https://www.hstoday.us/subject-matter-areas/pandemic-biohazard/pandemic-pandemonium-would-lead-emergence-new-world/>

It's been almost 100 years since the 1918 "Great Influenza" ravaged the world and killed, by some accounts, up to [100 million people worldwide](#).^[1] The bottom line is that after 100 years of significant scientific research and medical progress, the United States is poorly prepared to fight a deadly novel-strain of influenza, which can emerge at any time. Unlike seasonal influenza, humankind has no immunity against a novel-strain and your "flu shot" only gives you limited protection to known viruses. The authors offer a worst-case fictional scenario that endeavors the reader to imagine how a pandemic similar to the Great Influenza would disrupt and forever change the current world order.

The [Director of National Intelligence in 2015](#) clearly expressed the effect of such a pandemic. "If a highly pathogenic avian influenza virus, like H7N9, were to become easily transmissible among humans, the outcome could be far more disruptive than the great influenza pandemic of 1918," James Clapper told a Senate committee. "It could lead to global economic losses,



the unseating of governments, and disturbance of geopolitical alliances.”^[2] Such an outcome would have clear homeland and national security concerns to the United States.

The following is a fictional account of the emergence of a highly contagious influenza (HCI) pandemic and its effects on the world and the United States. It's just a matter of time when the next novel HCI strain emerges. If that strain emerges to have a high infectivity and mortality rate, then there will be unprecedented impacts to populations, critical infrastructure, and global governance unlike what has been experienced by anyone alive today. We are overdue for such a pandemic and ill-prepared to face it 100 years later.



Mar 23 – A HCI virus strain emerges suddenly on a rural poultry farm west of an Asian city. Numerous cages of infected chickens shipped from that farm arrive at several legal and illegal live markets within the dense urban districts of the city. A child wanders about the market climbing and peering into cages as his mother barter for a chicken to boil that evening. The merchant butchers the chicken and sells it to the woman, who leaves with her son. This process repeats itself numerous times. The merchant's direct contact with live and butchered birds results in his infection and within days he starts to show symptoms. His symptoms worsen, but he continues to work in the market selling his infected birds so he can provide for his family. The air in the market is stagnant as chickens and ducks move about their cages, kicking up contaminated dust and flapping their wings. The merchant is ignoring his growing aches and cough, thinking that the dust, cool mornings, and cigarette smoking are causing his asthma to flare up. The merchant is also exposing his immediate family to the virus through his deep coughs in their small, poorly ventilated apartment. His elderly mother, pregnant wife, and young son soon shows signs of illness. Within several days, he is unable to work due to a headache, high fever, and labored breathing. Cyanosis, or the compromised ability of the lungs to exchange oxygen, sets in and the merchant's lips and fingertips turn a blue hue as respiratory distress increases. The merchant's brother rushes him to the hospital where he is admitted but misdiagnosed as having a routine, but advanced, case of seasonal influenza.

A ventilator does little to help the merchant's growing distress. After several days of hospital care, a secondary bacterial infection overtakes his lungs with surprising speed. Numerous doctors, nurses, and facility staff have come in direct contact with him or his waste. Other patients with similar symptoms begin appearing at different hospitals across the city and the virus shows an alarming airborne infectivity rate. The virus is beginning to gain a foothold in the city.

The virus is now showing a high morbidity rate as more cases appear in clinics and hospitals. Some medical staff see the very early stages of a serious influenza epidemic with pandemic possibilities. The influenza does not respond to the typical medical regimes and treatment. The elderly and young children are becoming very ill, very quickly. What medical staff initially believed to be seasonal influenza is now coming into focus as something quite different and



lethal. Deaths are now occurring at an alarming rate and the merchant passes away quickly, followed by his mother, who was already in poor health.

The city's health board realizes it has a significant problem and notifies higher-level government officials, who quickly descend upon the health board and demand that there be no public announcements. The government's leadership is concerned about the negative societal and economic effects that would occur if the city were labeled the epicenter of an epidemic with pandemic possibilities; they hush and chase away reporters from the city's main newspaper. Despite pleas from various hospitals, no public health warnings about a novel HCl virus strain with an alarmingly high mortality rate go out for another week. This delay dooms thousands of citizens as the virulent strain spreads and deaths begin to skyrocket in the city.

The World Health Organization (WHO) is able to insert a team into the city to collect case-rate data and laboratory specimens. The team utilizes standard protocols and determines that a novel HCl is raging unchecked. Reports of cases outside the city come in along trade and travel routes. The WHO issues orders to government authorities to cull entire bird flocks inside and outside the city, to shut down plane and train travel, and to deploy immediate public healthcare precautions. Farmers and merchants refuse to comply and protest after seeing the threat to their livelihood.

Reports of cases are now appearing in many countries, mainly in cities within Europe and the United States that handle Asian international flights, such as San Francisco, Los Angeles, and Washington, D.C. The WHO issues a global pandemic warning. Within weeks and months, the HCl pandemic sweeps across the U.S. in its opening first-wave salvo. Epidemiologists are shocked by the uncharacteristic virulence of the first wave. The public healthcare system is quickly overwhelmed, with many of the medical providers succumbing quickly. Many patients infected with the HCl seek out hospitals but are turned away because of a lack of available beds and supplies. Sadly, the "walking well" – those who fear they are infected but are not – show up at healthcare facilities and expose themselves to the virus and many become infected. Healthcare worker absenteeism jumps significantly due to death, sickness, fear, caring for family members, or grief of loss. Nurses and medical equipment, especially ventilators, face masks, and rubber gloves, are all in short supply. Antiviral medications and antibiotics are also in short supply and the mortality rate from secondary bacterial lung infections is growing.

Mortuary and burial services are overwhelmed and refrigeration trucks can't contain the growing number of bodies spilling out of hospitals. Some funeral homes and crematoriums simply refuse to take bodies that have died from the influenza. Casket manufacturers cannot meet demand and many people resort to burying loved ones in simple wooden coffins while others are only wrapped in sheets and plastic tarps. Numerous bodies are going unclaimed, resulting in hasty burials in shallow graves or trenches dug for mass graves.

Like healthcare workers, absenteeism of those that run much of the critical infrastructure increases and leads to the loss of basic services. Trash removal, postal delivery, police, fire, and ambulance services all become spotty, especially in cities. Instances of contaminated water have increased along with the corresponding orders to boil water. The shelves at grocery stores are bare of certain essentials due to a breakdown of production, delivery, maintenance, and reliable electrical power for refrigerators and freezers. Fuel for backup generators is sparse.

State and federal authorities are stepping in and canceling all large gatherings of people, to include cinemas, sporting events, concerts, and even protests against the government. Shopping malls and outlet stores are empty of customers. The retail industry is suffering economically as people fear venturing out and becoming infected. All forms of travel are depressed and some are even restricted. Each community is experiencing the pandemic as a local event and many communities focus inward and protect their own citizens.

The United States suffers a huge economic downturn and falls into a major recession like that seen in the 1930s. The failing economy only compounds problems. Trust in the government wanes. Opportunists take advantage of the overwhelmed federal and state governments and some protests in major cities turn into riots. Due to absent emergency responders, anarchists and arsonists destroy and burn huge swaths of city blocks across the country.



The first wave of the HCl pandemic passes and the United States joins the world as it tries to come to terms with what it is facing; however, the worst is yet to come. At the federal level, the Department of Health and Human Services (HHS) and the Centers for Disease Control and Prevention are overwhelmed with requests for help and support. After much delay, the HHS secretary asks the president to use Department of Defense (DoD) assets to assist domestically.

Requests come into the State Department from other countries seeking assistance, because many of their governments are no longer able to function. Violent coups overthrow several less-stable countries in South America, Eastern Europe, and the Middle East. A tectonic shift in global governance is now a forgone conclusion from the high mortality rate in those countries with limited public health infrastructures and access to antiviral medicines and vaccines.

Virologists diligently work on a vaccine but realize that a national-level vaccination response and a person's ability to build immunity to the virus will not occur until past the peak of the second wave that soon hits the United States. The virus mutates further as it adapts to its human hosts and the second wave is dramatically more severe in terms of mortality than the first wave.

As the second wave approaches its peak, the loss of many people in the critical infrastructure sectors – energy, water and wastewater systems, transportation, and communications and information technology – becomes dire and is felt most greatly in cities. Electricity brownouts and blackouts occur, raw sewage spills contaminate potable water sources, trash removal services have ceased, and logistical shipments of foodstuffs, medical supplies, and fuel have dropped 50 percent. Grocery stores run completely empty from demand or looting. Those willing to risk exposure – or who are already sick – take to the streets in search of food, water, and fuel.

Dead bodies are seen in empty city lots or along sidewalks, going uncollected out of fear. Widespread arsons, looting, and vigilantism result in many cities, such as Atlanta, Chicago, Detroit, Los Angeles, New York City, and Philadelphia, prompting declaration of martial law. Hollowed-out police, National Guard, and active-duty ranks cannot enforce peace or provide aid effectively.

An unprecedented mortality rate, nearing 45 percent, consumes the country of India due to its dense population, cultural norms, and poor infrastructure. India misinterprets Pakistan's overtures on its disputed border and it pushes the two nuclear-armed states to the brink of war. Iran mistakes a commercial airliner as a military threat and shoots it down in international airspace. People from Central America and Mexico pour over the U.S. Southwest border in record numbers – from 500 a day to over 4,000 a day – to search for medical supplies and the false hope that the U.S. can save their families. A similar mass migration occurs across Europe. The United Kingdom and Australia have closed their borders.

Opportunist nations are emboldened and U.S. national security interests in the Strait of Hormuz, Israel, Taiwan, and South Korea are threatened and exploited. A U.S. missile cruiser is attacked in the South China Sea and desperate civilians overrun several overseas bases in Japan, Guam, and Germany seeking help. Passage through the Panama and Suez canals stops. A large oil supply pipeline ruptures from sabotage and lack of maintenance. Russian hackers attack various financial institutions and the energy grid within the U.S. to sow instability and anger within the U.S. population. The global chaos and prophetic beliefs of radicalized terrorists push many to pursue martyrdom through suicide bombings of soft targets, adding to the world's misery.

Rumors and conspiracy theorists abound on global social media and many people ignorantly blame the U.S. for designing this deadly virus to kill non-Americans. Other conspiracies spread that the U.S. will not share air or vaccines once developed. U.S. embassies in half a dozen Middle East, African, and European countries are overrun and burned, with many staff dead or missing.

Key pharmaceutical producers around the world mass produce an identified vaccine. The administration of the vaccines within the U.S. is by a lottery system based on age groups, those most at risk, and occupation. Members of the executive, legislative, and judicial branches, and their families, are given early vaccinations, angering many.

The second wave is touching every life, whether rich or poor, rural or urban, educated or not. In defiance of their own isolation recommendations, both Houses of Congress sit in a televised joint session, with most wearing facemasks and wristbands indicating they are vaccinated. Only half of the cavernous chamber is full and most are spread out. Partisan



tempers flare, blaming the president and her administration for not doing enough to prepare for this global and national catastrophe. Half of the elderly Supreme Court justices die or are too sick to attend. Three of the Joint Chiefs sit sternly, listening intently on the debates.

The president has not been seen in several days and there is wild speculation that she is gravely ill or has died. A handful of news commentators openly express concern about a military coup, while others uncomfortably dismiss such notions. The U.S. now focuses its full efforts inward in a desperate fight to ensure the continuance of a constitutional form of government and its relevance in a post-pandemic world. The full effects of the third and final wave of the HCI pandemic passes its peak and varying estimates of the global mortality rate are an astounding 25 to 35 percent. The emergence of a new world is undefined and the United States' position in that world is unclear.

[1] Taubenberger, J. K., & Morens, D. M. (2006). 1918 Influenza: the Mother of All Pandemics. *Emerging Infectious Diseases*, 12(1), 15-22. <https://dx.doi.org/10.3201/eit1201.﻿050979>

[2] Clapper, J. (2015). Statement for the Record, Worldwide Threat Assessment of the US Intelligence Community, Senate Armed Services Committee.

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Charles W. Stiles, Captain, United States Navy has over 30 years' experience as a Navy Medical Department Officer, where he has served in numerous assignments. He is a recent graduate of the National Intelligence University. His interest in HCI pandemics is driven by his study of the nexus between U.S. Northern Command and its maritime component U.S. Naval Forces North in responding to global infectious disease in order to protect the homeland, provide global relief, and its effect on the U.S. Intelligence Community.

Drug-producing bacteria possible with synthetic biology breakthrough

Source: https://www.eurekalert.org/pub_releases/2018-03/uow-dbp030518.php

Mar 05 – Bacteria could be programmed to efficiently produce drugs, thanks to breakthrough research into synthetic biology using engineering principles, from the University of Warwick and the University of Surrey.

Led by the Warwick Integrative Synthetic Biology Centre at Warwick's School of Engineering and the Faculty of Health and Medical Sciences at the University of Surrey, new research has discovered how to dynamically manage the allocation of essential resources inside engineered cells - advancing the potential of synthetically programming cells to combat disease and produce new drugs.

The researchers have developed a way to efficiently control the distribution of ribosomes - microscopic 'factories' inside cells that build

proteins that keep the cell alive and functional - to both the synthetic circuit and the host cell.

Synthetic circuitry can be added to cells to enhance them and make them perform bespoke functions - providing vast new possibilities for the future of healthcare and pharmaceuticals, including the potential for cells specially programmed to produce novel antibiotics and other useful compounds.

A cell only has a finite amount of ribosomes, and the synthetic circuit and host cell in which the circuitry is inserted both compete for this limited pool of resources. It is essential that there are enough ribosomes for both, so they can survive, multiply and thrive. Without enough ribosomes, either the circuit will fail, or the cell will die - or both.



Using the engineering principal of a feedback control loop, commonly used in aircraft flight control systems, the researchers have developed and demonstrated a unique system through which ribosomes can be distributed dynamically - therefore, when the synthetic circuit requires more ribosomes to function properly, more will be allocated to it, and less allocated to the host cell, and vice versa.

Declan Bates, Professor of Bioengineering at the University of Warwick's School of Engineering and Co-Director, Warwick Integrative Synthetic Biology Centre (WISB) commented:

"Synthetic Biology is about making cells easier to engineer so that we can address many of the most important challenges facing us today - from manufacturing new drugs and therapies to finding new biofuels and materials. It's been hugely exciting in this project to see an engineering idea, developed on a computer, being built in a lab and working inside a living cell."

José Jiménez, Lecturer in Synthetic Biology at the University of Surrey's Faculty of Health and Medical Sciences:

"The ultimate goal of the selective manipulation of cellular functions like the one carried out in this project is to understand fundamental principles of biology itself. By learning about how cells operate and testing the constraints under which they evolve, we can come up with ways of engineering cells more efficiently for a wide range of applications in biotechnology"

Ribosomes live inside cells, and construct proteins when required for a cellular function. When a cell needs protein, the nucleus creates mRNA, which is sent to the ribosomes - which then synthesise the essential proteins by bonding the correct amino acids together in a chain.

Based on an original idea arising from discussions between Alexander Darlington, a PhD candidate at the University of Warwick, and Dr. Jiménez, the theory of dynamically allocating resources in cells was tested and analysed with mathematical modelling at Warwick, and then built and demonstrated in the laboratory at the University of Surrey.

A synthesized antibiotic is capable of treating superbugs

Source: <http://www.homelandsecuritynewswire.com/dr20180329-a-synthesized-antibiotic-is-capable-of-treating-superbugs>

Mar 29 – A “game changing” new antibiotic which is capable of killing superbugs has been successfully synthesized and used to treat an infection for the first time—and could lead to the first new class of antibiotic drug in thirty years. The breakthrough is another major step forward on the journey to develop a commercially viable drug version based on teixobactin—a natural antibiotic discovered by U.S. scientists in soil samples in 2015 which has been heralded as a “gamechanger” in the battle against antibiotic resistant pathogens such as MRSA and VRE. Scientists from the University of Lincoln, UK, have now successfully created **a simplified, synthesized form of teixobactin which has been used to treat a bacterial infection in mice**, demonstrating the first proof that such simplified versions of its real form could be used to treat real bacterial infection as the basis of a new drug.

Lincoln [says](#) that the team at Lincoln developed a library of synthetic versions of teixobactin by replacing key amino acids at specific points in the antibiotic's structure to make it easier to recreate. After these simplified synthetic versions were shown to be highly potent against superbug-causing bacteria in vitro - or test tube—experiments, researchers from the Singapore Eye Research Institute (SERI) then used one of the synthetic versions to successfully treat a bacterial infection in mice. As well as clearing the infection, the synthesized teixobactin also minimized the infection's severity, which was not the case for the clinically-used antibiotic, moxifloxacin, used as a control study. The findings are published in the [Journal of Medicinal Chemistry](#).

It has been predicted that by 2050 an additional ten million people will succumb to drug resistant infections each year. The



development of new antibiotics which can be used as a last resort when other drugs are ineffective is therefore a crucial area of study for healthcare researchers around the world.

Dr. Ishwar Singh, a specialist in novel drug design and development from the University of Lincoln's School of Pharmacy, said: "Translating our success with these simplified synthetic versions from test tubes to real cases is a quantum jump in the development of new antibiotics, and brings us closer to realizing the therapeutic potential of simplified teixobactins.

"When teixobactin was discovered it was groundbreaking in itself as a new antibiotic which kills bacteria without detectable resistance including superbugs such as MRSA, but natural teixobactin was not created for human use.

"A significant amount of work remains in the development of teixobactin as a therapeutic antibiotic for human use—we are probably around six to ten years off a drug that doctors

can prescribe to patients—but this is a real step in the right direction and now opens the door for improving our in vivo analogues."

Dr. Lakshminarayanan Rajamani from SERI added: "We need sophisticated armor to combat antibiotic-resistant pathogens. Drugs that target the fundamental mechanism of bacterial survival, and also reduce the host's inflammatory responses are the need of the hour. Our preliminary studies suggest that the modified peptide decreases the bacterial burden as well as disease severity, thus potentially enhancing the therapeutic utility."

Lincoln notes that the work builds on the success of the Lincoln team's pioneering research to tackle antimicrobial resistance over the past twenty-two months to turn teixobactin into a viable drug. The team will now develop a bigger library of simplified synthetic versions which can be used in a diverse number of applications, advancing the goal of a clinical drug.

— Read more Anish Parmar et al, "Design and Syntheses of Highly Potent Teixobactin Analogues against *Staphylococcus aureus*, Methicillin-Resistant *Staphylococcus aureus* (MRSA), and Vancomycin-Resistant *Enterococci* (VRE) in Vitro and in Vivo," *Journal of Medicinal Chemistry* 61, no. 5 (24 January 2018).

Anthrax Island: Scotland Gruinard Island possible purchase

Source: http://www.heraldsotland.com/news/16130748.Russian_oligarchs_to_buy_Scotland__39_s_Anthrax_Island/

Mar 31 – A group of Russian oligarchs is bidding to buy Gruinard Island off the north west coast of Scotland. Gruinard is known as Anthrax Island after being used for testing biological weapons during the



Second World War. It is uninhabited today due to fears of ongoing contamination. Little is known about the group of Russian oligarchs bidding to buy the island, except for their second names: Kulagin, Glebov, and Baratynsky. Kulagin is believed to have made his fortune in the removals business, Glebov in chemicals, and Baratynsky in



are said to be extremely close to Vladimir Putin -- wish to buy the island. The group officially put in their bid this morning before noon.

One British source said: "If Gruinard had an active volcano under which they could build a lair, replete with shark tank, lasers and dozens of goons in uniform, then this move would make sense. As Gruinard is basically a contaminated hell-hole where we once bombed sheep to death with bio-weapons in the hope of doing the same to

Germans, then I cannot for the life of me understand what these oligarchs would want with the place."

A Kremlin source said: "Why should a group of shadowy billionaires not buy up your land of Scotch and haggis? To raise questions about this is typical of lick-spittle imperialist lackeys who see conspiracies by



Russia at every turn." When asked how anyone could survive on an island contaminated with anthrax, the source initially said that Russia "had years of experience with this type of thing", before adding: "You cannot report that. We didn't say that." The Kremlin source then said officially: "Russian men are strong like wolves and can survive anywhere. We are not weak little Scots -- whose men wear skirts like baby girls."

Locals in Ullapool, the nearest coastal town to the island, were stunned last night by the news. **One woman, who asked not to be named, answered her door in a full hazmat suit.** She said that every resident with access to a boat had decided to mount a blockade of Gruinard island in a bid to stop Kulagin, Glebov and Baratynsky arriving on the mainland. "I don't want to have to spend my entire life walking around in this thing," she said, her voice muffled by the gas-mask over her face. "You won't be able to go for a cup of tea anywhere. Does Nicola Sturgeon really expect everyone in Ullapool to pay to get all our messages tested for WMD? Holyrood needs to stump up."

An expert from the Centre for Expert Studies, Philby Burgess-Maclean, said: "This story could almost be satire, but I am no expert." A Scottish Government spokesman said: "Do we really have to get involved in this? We'd rather not, to be honest. Tartan Day is on this week -- and we'd prefer if it didn't go off with a bang."

A spokesman for President Putin said: "We'd be very happy to offer you an official comment, and would like to send a representative around to your house to speak to you in person. What is your address? What time will you be in? Do you have security cameras?" The Sunday Herald declined the comment.



[The British Government acquired Gruinard in 1942 for a series of military type exposure experiments using the Vollum Strain of *Bacillus anthracis*. They had acquired the culture from Professor Vollum of Oxford University. By today's standards the experiments were crude and as a result the island was badly contaminated, and the Government refused to allow the original owners to repurchase it until it had been sufficiently decontaminated. This was undertaken in 1986 and involved some 280 tonnes of formaldehyde solution diluted in sea water being sprayed over all 196 hectares of the island and injected into the worst contaminated areas. A sentinel flock of sheep placed on the island remained healthy. On [1 May 1990] the island was allowed to be repurchased by the original owners. and sheep have been grazing there ever since, and none have succumbed to anthrax. They were regularly visited by their shepherds without problems.

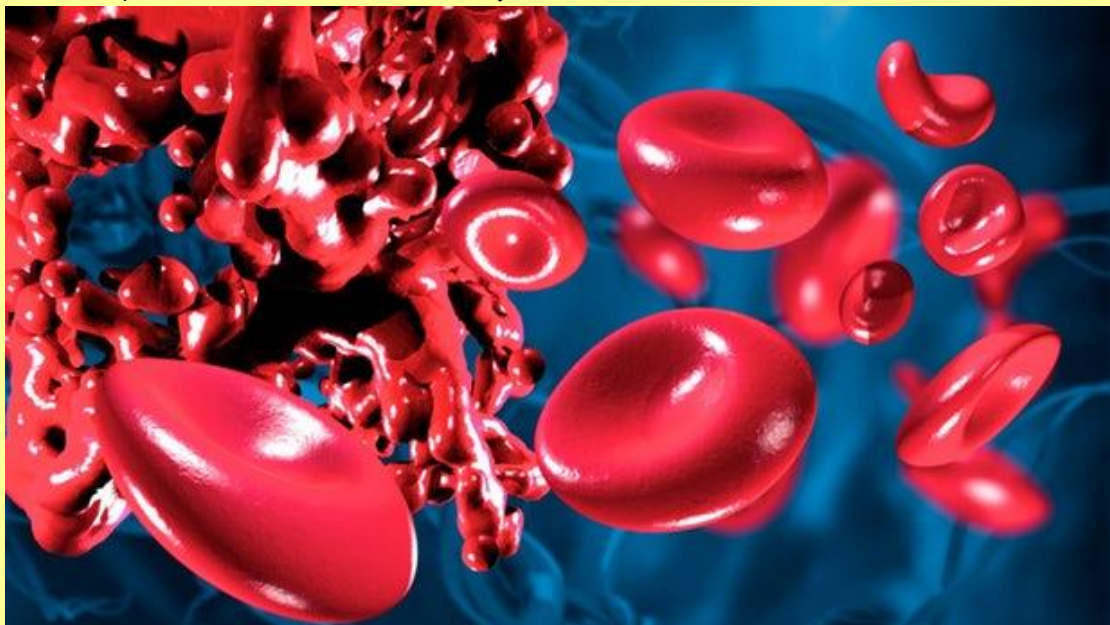
A quick check on <snopes.com> revealed no reports yet of this being a fabricated report. Why any Russians would wish to buy this island is not obvious other than to invest their money -- it is a proven safe site, in an attractive area of western Scotland. It is easy to access from Ullapool being only 1 Km [approx. 0.6 mi] off-shore. Amateur efforts to recover anthrax spores have failed and there are cheaper ways of legally acquiring cultures of Vollum; many laboratories have it in their collection of archived strains. But who knows. It would be an ideal site, once a suitable building has been constructed, for fully discrete discussions and meetings in a very relaxing place.]



Injectable bandages promise to stop bleeding and speed wound healing

By Rich Haridy

Source: <https://newatlas.com/author/rich-haridy/>

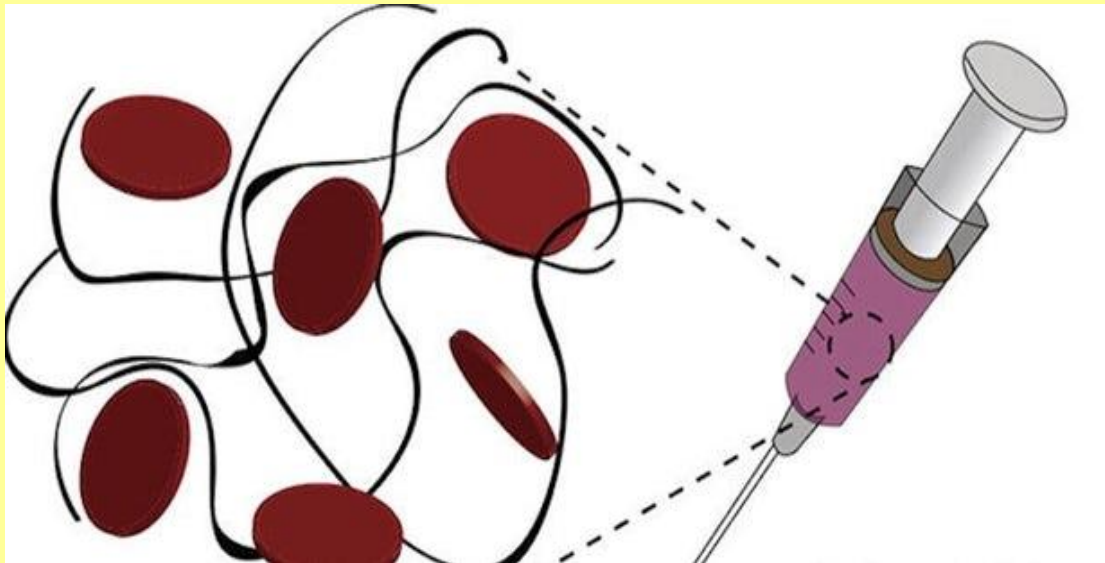


Apr 03 – A team from Texas A&M University has created a novel **injectable bandage** that blends a commonly used food thickening agent with nanoparticles. The result is an injectable hydrogel than can rapidly stop bleeding and potentially promote wound healing.

Kappa-carrageenan, commonly extracted from red edible seaweed, has been utilized for decades as an effective gelling agent in food. **The researchers combined kappa-carrageenan with synthetic two-dimensional nanosilicates to generate an injectable hydrogel that can quickly stop bleeding.** The nanoparticles were found to enhance the hemostatic capacity of the hydrogel, speeding up the cascading process of blood clotting.



"Injectable hydrogels are promising materials for achieving hemostasis in case of internal injuries and bleeding, as these biomaterials can be introduced into a wound site using minimally invasive approaches," says Akhilesh K. Gaharwar, one of the scientists working on the study.



Additionally, the nanoparticles can be modified to contain a variety of therapeutic biomacromolecules that result in enhanced tissue regeneration and wound healing. This secondary benefit follows on from the injectable bandage simply stopping bleeding and provides a way to direct therapeutic molecules directly into a wound.

"Interestingly, we also found that these injectable bandages can show a prolonged release of therapeutics that can be used to heal the wound," says Giriraj Lokhande, first author on the paper. "The negative surface charge of nanoparticles enabled electrostatic interactions with therapeutics thus resulting in the slow release of therapeutics."

Uncontrollable bleeding is a major cause of death for soldiers on a battlefield or regular citizens involved in major accidents. Several recent innovations have offered promising ways to help speed up clotting, from a [foam that fills a wound cavity](#) and quickly hardens to an [injectable polymer that can strengthen blood clots](#).

But the most innovative aspect of this new injectable hydrogel is that, in addition to rapidly stopping bleeding, the nano-material can significantly promote wound healing, with early in vitro tests showing the injectable hydrogel to effectively facilitate tissue regeneration.

The research was published in the journal [Acta Biomaterialia](#).

Scientific journal officially retracts controversial CRISPR study

By Rich Haridy

Source: <https://newatlas.com/controversial-crispr-study-retracted-journal/54046/>

Apr 03 – A study published last year suggesting CRISPR gene-editing can cause hundreds of unintended alterations has officially been retracted by the scientific journal *Nature Methods* (Credit: [vchalup2/Depositphotos](#)) Last year, [a study published in the journal Nature Methods](#) caused controversy in the scientific community after claiming to find over 100 unintended large genetic deletions or insertions related to the CRISPR gene-editing process. Now the journal has officially retracted

the paper after a thorough review found the main claims in the study were not sufficiently backed up by data.

With several human clinical trials involving the CRISPR gene-editing process moving forward, [the original study resulted in a flurry of criticism](#) from many scientists in the field. Geneticists argued the study was fundamentally flawed, with a low sample size and conclusions that



could not be reasonably attributed to the data gathered.

processes to reduce the likelihood that such an error will happen again."



Gaetan Burgio, a geneticist from Australia National University, was one of the researchers ardently critical of the study, directing a degree of concern at the journal for publishing such as dubious paper in the first place.

"This is a terrible paper and as a reviewer I would have dismiss (sic) it from the first round of review," [Burgio wrote](#). "This is a worrying trend from 'high impact' journals to promote the hype over good science. The publication of this paper is clearly a failure in the peer review process."

Now the journal *Nature Methods* has finally responded to the controversy, [publishing several critiques of the original study](#) and officially retracting the paper after a review by four independent referees. An [accompanying editorial](#) from the journal concluded that the paper's conclusions were not sufficiently supported by the data. The journal also notes its peer review process for this particular paper was not suitably rigorous.

"The original paper was peer reviewed, but we should have sought at least one additional referee with expertise in the genetics of inbred mouse strains. We regret this omission," the editors of the journal write in a recently released statement. "While ensuring appropriate referee expertise is a task we have always taken seriously, and is a central part of the editorial process, we have now put in place further

Last week, the scientists behind the original study also [published a pre-print article](#) outlining follow-up research that suggested the original results could not be replicated. Further whole-genomic study of mice that had undergone CRISPR gene-editing were found to have no excess, off-target mutations. The new article, yet to be peer-reviewed or published, [concludes](#), "Taken together, these whole-genome-sequencing-level results support the idea that in specific cases, CRISPR-Cas9 editing can precisely edit the genome at the organismal level and may not introduce numerous, unintended, off-target mutations."

The response from *Nature Methods* concludes by outlining several other whole-genome studies that have been published suggesting CRISPR gene-editing does not result in significant off-target effects. But, it also notes that there are limitations in the current literature and relatively little published data on the effects of the CRISPR process in vivo.

Although this particular study has now officially been retracted it doesn't mean that CRISPR is 100 percent safe. While many geneticists are undoubtedly breathing a sigh of relief and continuing their research, there still is much more work to be done to understand the broader genomic effects of this revolutionary technique.



Richard Haridy is based in Melbourne, Australia and has a strong interest in film, VR and new media. He has written for an number of online and print publications over the last decade and also acted as film critic for several radio broadcasters and podcasts. Richard was Chair of the Australian Film Critics Association for two years (2013-2015) and when not writing or making videos for New Atlas he can be found in darkened cinemas yelling at the screen.



Field-Proven Medical Skills for Law-Enforcement Units

By Joseph Trindal

Source: <https://www.domesticpreparedness.com/preparedness/field-proven-medical-skills-for-law-enforcement-units/>

October 2010 – The military medical skills displayed by U.S. soldiers and Marines in both Afghanistan and Iraq contributed significantly to the highest survivability rate in U.S. history. Nonetheless, and despite that encouraging example, domestic law-enforcement officers are generally provided nothing beyond basic first aid training. There are some disturbing trends today, in fact, that – despite improved tactics and better protective equipment – make the law-enforcement profession, anywhere in the world, less safe than ever before. Just on the other side of the U.S. border with Mexico, for example, law-enforcement units are being assaulted, with devastating results, by well armed and tactically skilled criminal teams. In many other areas of the world, law-enforcement facilities and units are high on terrorist target lists. According to a recently released FBI report – *Law Enforcement Officers Killed and Assaulted (LEOKA) 2009* – **nearly 33 percent of police officers who made the ultimate sacrifice had been ambushed.** Numerous incidents show that the planned premeditated ambush is more likely than not to result in severe injury to the officers targeted.

Motor vehicle accidents are another "leading indicator" of fatalities among the law-enforcement community. In both types of situations – ambushes or vehicle accidents – the officer is likely to have to rely on his or her own skills for self preservation.

A Common Sense Approach Beyond Basic First Aid

The well publicized Pittsburgh (Pa.) ambush in April 2009 is but one example among many in which police officers, injured in an assault, were unable to escape from the danger zone – which itself had become too dangerous for medical personnel to come to their assistance. In the Pittsburgh ambush, the assailant prepared for the deadly confrontation as officers were responding to a disturbance call. The two officers – Stephen Mayhle and Paul Sciuillo III – who initially responded were killed outright. Officer Eric Kelly, the third responding officer to arrive on the scene, was fatally wounded by the assailant's AK-47. Officer Timothy McManaway, who arrived later, was shot in the hand and therefore unable to assist Officer Kelly – who was still alive when McManaway arrived.

Deputy Chief Paul Donaldson arrived in time to see McManaway kneeling over Kelly and calling for assistance. As more police arrived on the scene, a police van was improvised to provide the officer driving with some degree of ballistic protection (but probably not enough to preclude penetration of the 7.62x39mm bullet the assailant was using). The van was used as a rescue and extrication vehicle, but Kelly succumbed to his injuries after losing too much blood. (In the infamous 1997 North Hollywood bank robbery shooting rampage the same type of improvised rescue method had been used to extricate a critically wounded officer suffering from significant blood loss.)

In the United States, approximately **80 percent of civilian trauma deaths in such incidents are attributed to the uncontrolled loss of blood.** But there is a lack of reliable empirical data on law enforcement injury typologies – except for the initial cause: a gunshot wound. Largely for that reason, Dr. Matthew D. Sztajnkrzyer, medical director of the Rochester (Minn.) Police Department, has called for deeper and more extensive epidemiological studies into life-threatening law-enforcement incidents and, not incidentally, also has recommended better and more comprehensive training in medical decision-making skills for police.



DOD Medical Training for Civilian L-E Agencies?

There is considerable evidence to suggest that current Basic First Aid and First Responder certifications fail to provide law enforcement officers the depth of knowledge necessary to save themselves and one another. Moreover, the failure to train all officers on key fundamental medical skills from a self-treatment and active threat environment standpoint poses a potentially fatal risk to other officers who are compelled to bravely attempt hasty and improvised extrications while under fire from an unknown and frequently non-visible assailant.



The success of the U.S. Department of Defense (DOD) Tactical Combat Casualty Care (TCCC) program provides several teachable lessons for the nation's domestic law-enforcement community. The initiative for broader application of essential medical skills throughout the nation's armed services was heavily influenced by the 1993 Battle of Mogadishu firefight in which a number of the U.S. casualties could have been prevented by prior training in essential "buddy-care" skills and, not incidentally, the acquisition and use of more and improved lifesaving tools and equipment.

The core principle of the TCCC program is to rapidly provide events-based medical care to battlefield casualties – while at the same time continuing to eliminate or at least mitigate the threat sources. TCCC focuses on core combat medical decision-making and treatment skills for controlled bleeding, tension pneumothorax, and airway management. **A complicating factor in the law-enforcement field, though, is that – unlike military personnel, who seldom operate alone – police officers frequently do carry out their duties either alone or as part of a two-man team.**

Inevitable Escalation & Other Ramifications

The application of TCCC event-based principles and practices might easily be – and probably should be – adapted for use in the domestic environment to deal with the types of injuries most likely to be encountered by police. Fortunately, the environment in which U.S. police services usually are carried out is seldom as austere as the combat environment faced by the nation's armed forces. Also, the domestic police officer is not as likely to experience the type of extreme injuries as those caused by improvised explosive devices (IEDs) used against armed forces personnel in Afghanistan and Iraq.



The nation's law-enforcement agencies would be well advised both to adapt TCCC training for local police units and to provide them as well with such essential basic military medical equipment as combat application tourniquets (CATs) and improved modular dressings. Unfortunately – and despite the efforts of the National Tactical Officers Association (NTOA), supported by the National Association of Emergency Medical Technicians (NAEMT), in developing general guidelines for adapting TCCC – there is still no uniform standard for training and equipping the officer on the street for exigent self or "buddy" stabilization and extrication.

Nonetheless, as violent trends continue to escalate both domestically and overseas, the urgency – particularly along the nation's southern border – for enhanced combat medical skills throughout the law enforcement profession will undoubtedly become increasingly important. Addressing this increased need with the battlefield-tested techniques demonstrated in the TCCC program – carefully and effectively adapted to the police profession – will and should be recognized as a mandatory officer-safety priority.

Joseph Trindal is a career federal law enforcement investigator and executive, recently retired as chief of the Inspections & Enforcement Branch of DHS's Infrastructure Security Compliance Division. That branch is responsible for administering and enforcing the Chemical Facility Anti-Terrorism Standards.



Biomedicine & Prevention

An Open Access Transdisciplinary Journal

How to CBRN-Proof Your Hospital

Ioannis Galatas¹

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Introduction

One day an improvised explosive device was detonated in a busy district downtown in a Western capital. Ordinary first responders (policemen, firemen, ambulance service crews) were deployed to secure the area, collect evidence, and transfer casualties to one or more hospitals close to the incidence site. One hour after the explosion, one of the firemen decided to try the new chemical and radiological detection equipment his/her service recently purchased. For his/her surprise the detector started beeping indicat-

reduction that affects hospitals as well thus making purchase of specialized equipment more difficult than ever. Third, it is the perception of the people involved in hospital's defense. The same people – physicians and nurses – who have to safeguard the hospital in order to avoid secondary contamination, need to spend a lot of time and effort in the theoretical study and practical training that will make them proficient in receiving contaminated casualties. As a matter of fact, this is a separate medical specialty that includes elements of many other sciences (i.e. chemistry,

Citation: [Galatas I](#) - How to CBRN-proof Your Hospital - Biomedicine & Prevention (2018) - vol. 4 - CBRNe safety. Special issue (PART 2) - (132) - DOI:10.19252/0000000084
Source: <http://www.biomedicineandprevention.com/manuscript/how-cbrn-proof-your-hospital>





Scientists Develop Sugar-Coated Nanosheets to Selectively Target Pathogens

Source: <https://www.domesticpreparedness.com/updates/scientists-develop-sugar-coated-nanosheets-to-selectively-target-pathogens/>

Apr 09 – Researchers have developed a process for creating ultrathin, self-assembling sheets of synthetic materials that can function like designer flypaper in selectively binding with viruses, bacteria, and other pathogens.

In this way the new platform, developed by a team led by scientists at the U.S. Department of Energy's Lawrence Berkeley National Laboratory (Berkeley Lab), could potentially be used to inactivate or detect pathogens.

The team, which also included researchers from New York University, created the synthesized nanosheets at Berkeley Lab's Molecular Foundry, a nanoscale science center, out of self-assembling, bio-inspired polymers known as peptoids. The [study](#) was published earlier this month in the journal ACS Nano.

The sheets were designed to present simple sugars in a patterned way along their surfaces, and these sugars, in turn, were demonstrated to selectively bind with several proteins, including one associated with the Shiga toxin, which causes dysentery. Because the outside of our cells are flat and covered with sugars, these 2-D nanosheets can effectively mimic cell surfaces.

"It's not just a 'lock and key' – it's like Velcro, with a bunch of little loops that converge on the target protein together," said Ronald Zuckermann, a scientist at the Molecular Foundry who led the study. "Now we can mimic a nanoscale feature that is ubiquitous in biology."

He noted that numerous pathogens, from the flu virus to cholera bacteria, bind to sugars on cell surfaces. So picking the right sugars to bind to the peptoid nanosheets, in the right distributions, can determine which pathogens will be drawn to them.

"The chemistry we're doing is very modular," Zuckermann added. "We can 'click on' different sugars, and present them on a well-defined, planar surface. We can control how far apart they are from each other. We can do this with pretty much any sugar."

The peptoid platform is also more rugged and stable compared to natural biomolecules, he said, so it can potentially be deployed into the field for tests of bioagents by military personnel and emergency responders, for example.

And peptoids – an analog to peptides in biology that are chains of amino acids – are cheap and easy-to-make polymers.

"The chemical information that instructs the molecules to spontaneously assemble into the sugar-coated sheets is programmed into each molecule during its synthesis," Zuckermann said. "This work demonstrates our ability to readily engineer sophisticated biomimetic nanostructures by direct control of the polymer sequence."

The sugar-coated nanosheets are made in a liquid solution. Zuckermann said if the nanosheets are used to protect someone from becoming exposed to a pathogen, he could envision the use of a nasal spray containing the pathogen-binding nanosheets.

The nanosheets could also potentially be used in environmental cleanups to neutralize specific toxins and pathogens, and the sheets could potentially be scaled to target viruses like Ebola and bacteria like E. coli, and other pathogens.

In the latest study, the researchers confirmed that the bindings with the targeted proteins were successful by embedding a fluorescent dye in the sheets and attaching another fluorescent dye on the target proteins. A color change indicated that a protein was bound to the nanosheet.

The intensity of this color change can also guide researchers to improve them, and to discover new nanosheets that could target specific pathogens.

Scientists also conducted X-ray-based experiments at Berkeley Lab's Advanced Light Source to analyze the nanoscale structure of the sheets, and confirm the presence of sugars on their surface. The Molecular Foundry and Advanced Light Source are DOE Office of



Science User Facilities. This work was supported by the U.S. Defense Threat Reduction Agency, the U.S. Defense Advanced Research Projects Agency, and the National Research Foundation of Korea.

Returning to Readiness: Strengthening Psychological Resilience by Building Behavioral Health Coalitions

By CDR Aimee Williams and Frankie Catalfumo

Source: <https://www.domesticpreparedness.com/updates/returning-to-readiness-strengthening-psychological-resilience-by-building-behavioral-health-coalitions/>

Apr 10 – The 2017 Atlantic hurricane season was one of the most destructive in recent history. During the recovery phase of a disaster, all impacted areas strive to stabilize, rebuild, recover, and be ready for the next emergency. Returning to readiness is a slow pivot and a relentless fight to re-establish broad public health and medical care services. The challenges and issues following a large-scale disaster are often too complex for any one agency or organization to address. Assembling a coalition of community stakeholders can be an effective strategy to determine what health care support services and treatment options are available, who the providers are, and whether gaps or duplication of services exist.

During the response to Hurricanes Irma and Maria, responders identified that many communities in Puerto Rico and the U.S. Virgin Islands (USVI) were not emotionally or psychologically prepared for an extended disruption in basic behavioral health services. A behavioral healthcare coalition can help communities swiftly assess their needs and begin to address the mental health needs of survivors. Further, a behavioral health coalition can serve as a vital network to address the needs of individuals and the community as time progresses.

For years, the Department of Health and Human Services (HHS) has used behavioral health coalitions to facilitate communication across provider groups; coordinate health care efforts; help identify existing and emergent needs; eliminate duplication of services; and launch community-wide initiatives in targeted areas. Building a community-based coalition for behavioral health also allows the long-term opportunity to have organizations coordinate their resources and services to bring about the most effective and efficient delivery of programs.

In short, these types of coalitions empower their communities by forging partnerships to help meet behavioral health needs.

HHS Implements the Behavioral Health Coalition Concept in Puerto Rico and USVI

During the response and recovery to Hurricanes Irma and Maria, public health advisors from the Substance Abuse and Mental Health Services Administration and behavioral health subject matter experts (SMEs) from the United States Public Health Service facilitated the development and implementation of behavioral health coalitions in Puerto Rico and USVI. Each coalition involved service providers and funders, Voluntary Organizations Active in Disaster, non-governmental organizations, and governmental agencies.

In Puerto Rico, behavioral health coalition members utilized the [Disaster Behavioral Health Coalition Guidance](#) to structure its activities. This coalition's diverse membership collectively identified concerns and solutions, and formed action plans to address the behavioral health needs for response and recovery.

As a result, the behavioral health coalition in Puerto Rico accomplished the following:

- established regional behavioral health points of contact to facilitate coordination of services during recovery activities;
- disseminated Centers for Medicare and Medicaid Services issued waivers to pharmacists and medical providers allowing patients to receive behavioral health services, including prescription coverage, without preauthorization;
- collaborated with FEMA and the government of Puerto Rico to develop behavioral health media campaigns to



- disseminate around the 2017 winter holidays;
- evaluated the existing clinical capacities (i.e. number of providers) present on the island following the impact of the hurricanes; and
 - ensured long-term support by institutionalizing the behavioral health coalition within the Administración de Servicios de Salud Mental y Contra la Adicción (ASSMCA), which is the government of Puerto Rico's Administration for Mental Health and Addiction Services. ASSMCA aims to expand the behavioral health coalition's activities by creating a Disaster Preparedness Group to increase communications at-large among social services agencies to develop a comprehensive behavioral health plan for Puerto Rico.

In USVI, federal SMEs helped the island develop a broad-based behavioral health coalition soon after the hurricanes hit the island. This coalition is now working with the U.S. Virgin

Islands' Territorial Mental Health Director and other private behavioral health service providers, behavioral health patient advocates, and governmental agencies to develop a jurisdictional health plan that identifies the top three behavioral health priorities and action plans to strengthen the long-term recovery of the behavioral health system across the island. Every community is different, and there is no standard for how long a community takes to recover. Developing a behavioral health coalition that is prepared to function during all phases of the disaster management cycle is one way to strengthen community resilience.

The Office of the Assistant Secretary for Preparedness and Response's Division of At-Risk, Behavioral Health, and Community Resilience created the [Disaster Behavioral Health Coalition Guidance](#). The guide offers recommendations on behavioral health coalition membership and the activities this type of coalition should implement before, during, and after a disaster strikes.

Anthrax India – humans and livestock

Source: <https://www.thenewsminute.com/article/4-cases-anthrax-andhra-why-mandal-has-been-hit-disease-79420>

For the past year, multiple cases of anthrax have been reported from Vishakhapatnam district. In this week alone, 4 people from Andhra Pradesh's Dumbriguda mandal in Vishakhapatnam district were suspected to have contracted anthrax. According to sources, the serum from the patients has been collected and the samples have been sent to a laboratory for analysis.

But this wasn't the 1st such case of anthrax to be reported. In September last year [2017], there were 5 cases of anthrax reported from the same place. These patients were quarantined and given the necessary treatment once the lab reports confirmed that they had contracted cutaneous anthrax. [See: 14 Sep 2017 Anthrax - India (14):(AD) caprine, human, update <http://promedmail.org/post/20170914.5317266> and 12 Sep 2017 Anthrax - India (13): (AD) caprine, human <http://promedmail.org/post/20170912.5311661>].

According to the Centers for Disease Control and Prevention, cutaneous anthrax is the most common form of anthrax infection. When anthrax spores get into the skin, usually through a cut or scrape, a person can develop cutaneous anthrax. This can happen when a person handles infected animals or contaminated animal products like wool, hides, or hair. Without treatment, up to 20 percent of people with cutaneous anthrax may die. However, with proper treatment, almost all patients with cutaneous anthrax survive.

Once the cases were identified and confirmed, the Animal Husbandry Department in Vishakhapatnam carried out a vaccination drive, which covered animals within the 10 km [approx. 6.2 mi] radius of the affected villages.

Dr. Linga Kalyan Prasad, Vishakhapatnam District Epidemiologist explains that if an animal which is not vaccinated contracts anthrax, it is likely to die on the same day. The carcass, he says, needs to be disposed of properly with experts suggesting that they be buried 6-feet under the soil. "However, some of the animal owners do not dispose [of] them properly. The Particularly Vulnerable Tribal Groups (PVTGs) in the nearby villages are asked to come and collect the



carcass. They eat the meat instead of burying the carcass," states Dr. Linga. The anthrax spores thus enter the human body.

Anthrax can also spread if a carcass decays near a water body or is cut open, with its spores contaminating and spreading through the water. The spores are viable for up to 70 years and are often found in soil. The animals which graze the soil, ingest the spores along with their feed. And the cycle continues.

"If any animal is sick or dead, the villagers should immediately inform the Animal Husbandry department. It is necessary to ascertain the reason of the death. And also to take immediate, necessary steps to prevent an outbreak. However, this does not seem to be the case. Maybe there should be monetary incentives to those who report a sick or dead animal. Also, these incentives can be extended to those who properly bury the carcass," says Dr. Linga.

Dr. D Ramakrishna, Deputy Director, Animal Husbandry says vaccinations are supposed to protect the animals from the disease. However, the frequency of the dosage is a prolonged one and it needs to be repeated every 9 months and done over a period of 5 years, he explains. "The serum titre levels in vaccinated animals are to be periodically evaluated. Also new animals, as and when they are introduced in the village, should be subjected to the vaccination," he says.

Dr. Ramakrishna emphasizes, "Currently to contain the outbreak, the villagers must be strictly told to stop eating any meat." He also explains that animals which die due to anthrax can easily be spotted as they will have blood oozing out of all orifices in the body. He says, "That is a sign ample enough for farmers to understand that the animal died due to anthrax and the carcass needs a thorough disposal. Burning or deep burial needs to be done."

When TNM questioned the efficacy of the vaccines to Dr. Ramakrishna, he replied that only an authoritative assessment could confirm the same.

Dr. Vasundhara, District Medical and Health Officer & District TB control Officer, says, "Repeated education of villagers is needed on this issue, so that they understand the seriousness of the situation. They cannot change overnight with just a single information session.

They have their socio-cultural practices which they won't let go of easily. And importantly the awareness and education programs need a multi departmental intervention. It is not just the work of one department alone. All the departments must work on this together."

She also exhorts the necessity of having dedicated research on this matter. According to her, this is needed for a long-term solution. The findings of such research need to be put into action and this can considerably reduce the recurrence of the outbreaks.

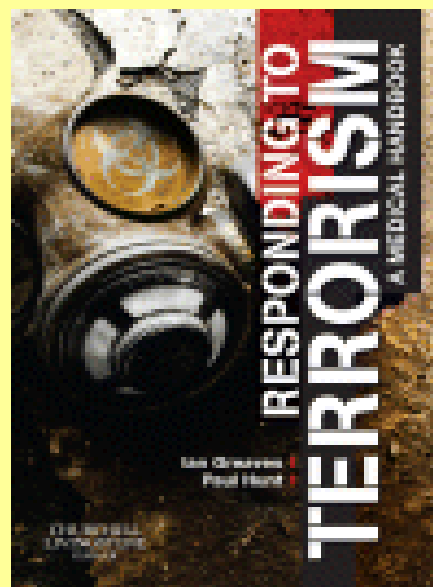
Responding to Terrorism - A Medical Handbook (2010)

By Ian Greaves, FRCP, FCEM, FIMC, RCS(Ed), DTM&H, DMCC, DipMedEd, RAMC, and Paul Hunt, MBBS, DipIMC(RCSEd), MCEM, MRCSEd, DMCC, RAMC

Source:

<https://www.sciencedirect.com/science/book/9780080450438>

Mounting an effective response to a terrorist attack or, just as importantly, managing a possible terrorist incident, is the direct professional responsibility of community physicians, occupational health physicians, accident and emergency staff, general practitioners and doctors in the Armed Forces. This handbook offers such professionals a broad range of clinically relevant



Review: Treatment Recommendations for Biological Disasters

By Batya Swift Yasgur, MA, LSW

Source: <https://www.empr.com/features/anthrax-smallpox-ebola-zika-tularemia-plague-bioterrorism-biological-disasters/article/757241/>



Apr 17 – Biological disasters can be attributable to a host of factors and take many forms (**Table 1**). A recent review¹ by Narayanan et al aims to educate clinicians in disaster preparedness and response by focusing on agents of clinical epidemic significance and bioterrorist national security.

Table 1 – Factors Contributing to the Emergence of Infectious Disease

Genetic, Biological	Microbial adaptation and change; infection susceptibility
Environmental	Climate, weather; changing ecosystems
Social, Political, Economic	Human demographics, behavior; economic development; international travel, commerce; technology, industry; poverty; war, famine; intent to harm

Narayanan N, et al. *Pharmacotherapy*. 2018 Feb;38(2):217-234.

The Centers for Disease Control and Prevention (CDC)^{2,3} classifies key biological agents into 3 categories: A, B, and C. The review covers Category A agents, as well as the Zika virus. (**Table 2**)

Table 2 – Category A Biological Threats

- Anthrax
- Botulism
- Plague
- Tularemia
- Smallpox
- Ebola

Narayanan N, et al. *Pharmacotherapy*. 2018 Feb;38(2):217-234.

Anthrax

Anthrax is caused by an aerobic, gram-positive, spore-forming, exotoxin-producing bacillus called *B. anthracis*, whose toxins lead to disease in both animals and human beings.¹

In human beings, the 3 primary forms of anthrax are cutaneous, gastrointestinal (GI), and inhalational. Injection anthrax is a relatively new and rare form of cutaneous anthrax, which can affect injection drug users.¹

Bacteremia can lead to manifestation of anthrax in sites secondary to the primary form, including the CNS, which is associated with meningitis after systemic spread.¹

Cutaneous anthrax, which is the most common form (95%) of natural cases in human beings, can occur even after minimal trauma or breaks in the skin. The incubation period is ~1 to 12 days, beginning with a small painless or pruritic papule and progressing to an ulcer, then the development of scab (eschar) that falls off without a residual scar.¹



Appropriately treated cases of cutaneous anthrax are rarely fatal, but untreated cases can spread hematogenously, causing potentially fatal systemic illness and toxin production.⁴

GI anthrax is uncommon in human beings and is associated with eating undercooked meat from an infected animal.¹ The incubation period is ~1 to 6 days.⁴ Symptoms can include fever, severe pharyngitis, oral or pharyngeal edema or ulcers, and dysphagia and, if severe, nausea, vomiting, abdominal pain, bloody diarrhea, hematemesis, ascites, and sepsis and, if untreated, secondary bacterium and invasion of other body sites.^{4,5}

Inhalation anthrax is the most fatal form of the disease, and most likely to be the route of dissemination for an intentional bioterrorist attack.¹ Since natural cases are rare, it should be assumed that any case is the result of intentional release until proven otherwise.¹

CNS anthrax (meningitis) is a common secondary complication of GI or inhalation anthrax, and most commonly occurs with severe advanced systemic disease.⁶

Anthrax is diagnosed by clinical presentation as well as microbiologic confirmation by culturing *B. anthracis*. Other options include culturing from sites of infection and serologic testing and polymerase chain reaction (PCR)-based assays.¹

Treatment of anthrax varies, based on the form and type of exposure leading to the disease. Beyond pharmacotherapy, critical care measures (hemodynamic support, mechanical ventilation, surgical intervention, and general sepsis treatment protocols) are essential.

Intravenous (IV) antibiotics with bactericidal and protein-synthesis inhibitor agents are the mainstay of systemic anthrax treatment (**Table 3**). In addition, the US Food and Drug Administration (FDA) has approved 3 antitoxin therapies to be used in combination with appropriate antibiotic therapy⁷⁻⁹ (**Table 4**). Moreover, the Advisory Committee on Immunization Practices recommends postexposure prevention (PEP) consisting of anthrax vaccine absorbed (AVA) and antimicrobial agents.¹

Table 3 – Anthrax Treatment (Antibiotics)*

Anthrax Form	Recommended Treatment
Systemic anthrax (confirmed or possible meningitis)	<ul style="list-style-type: none"> • Consists of 3 agents with good CNS penetration, with ≥1 bactericidal agent and 1 protein-synthesis inhibitor • Preferred regimen: Ciprofloxacin + meropenem + linezolid (all given IV) • Duration of treatment: at least 2–3 weeks until clinically stable • Adjunctive corticosteroids recommended at start of antibiotic therapy (based on data from nonanthrax bacterial meningitis)
Systemic anthrax (without meningitis)	<ul style="list-style-type: none"> • Therapy should include at least 2 antibiotics • Preferred agents: Ciprofloxacin + linezolid or clindamycin (all given IV) • Duration of initial IV therapy: at least 2 weeks or until clinically stable • Transition to oral therapy to complete total treatment course of 60 days after completing initial IV therapy



Bioterrorism-related cutaneous anthrax	<ul style="list-style-type: none"> • Treated the same as postexposure prophylaxis • Preferred treatment: Oral ciprofloxacin or doxycycline • Treatment duration: 60 days due to presumed inhalation of spores
Naturally-acquired uncomplicated cutaneous anthrax without systemic disease	<ul style="list-style-type: none"> • Preferred treatment: fluoroquinolone (oral ciprofloxacin, levofloxacin or moxifloxacin) or oral doxycycline • Ciprofloxacin recommended as 1st-line agent by IDSA guidelines • Treatment duration: 7–10 days

CNS=central nervous system; IV=intravenous; IDSA=Infectious Diseases Society of America
 *Dosages, alternative antimicrobials, and further details available in original article
 Narayanan N, et al. Pharmacotherapy. 2018 Feb;38(2):217-234.

Table 4 – Anthrax Antitoxins

Antitoxin	Type of Agent
Anthrax immune globulin intravenous (AIGIV)	Human polyclonal antibody
Raxibacumab	Fully humanized monoclonal antibody
Obiltoxaximab	Human immunoglobulin G1 monoclonal antibody

Narayanan N, et al. Pharmacotherapy. 2018 Feb;38(2):217-234.

The authors note that treatment recommendations are contingent on availability of resources, which may need to be adjusted in the event of a shortage.¹⁰

Botulism

Botulism is caused by botulinum neurotoxins produced by the bacteria *Clostridium botulinum*, a highly poisonous gram-positive anaerobic, spore-forming bacillus.¹

Human botulism is almost always foodborne, with an incubation period typically ranging from 12 to 36 hours, although symptoms can occur as soon as 2 hours later. Symptoms include acute, bilateral cranial neuropathies associated with symmetrical descending weakness, without fever and with clear mentation. Descending paralysis manifests as symptoms of cranial nerve dysfunction and eventually, the disease progresses to respiratory dysfunction as a result of diaphragmatic weakness.¹

In bioterrorism cases, botulinum toxin might be used to contaminate food supplies (GI botulism) or most likely be distributed by aerosol form (inhalational botulism).^{11,12}

The diagnosis of botulism is primarily based on clinical presentation and history, although local epidemiologists can also play a role.

Treatment involves supportive care and heptavalent botulism antitoxin (HBAT) and mechanical ventilation. HBAT is FDA approved, but only available through the CDC Strategic National Stockpile (SNS). To request it, clinicians should contact the staff of their local or state health department who will acquire the antitoxin via the CDC. If health department officials are unavailable, emergency consultation is available from the CDC Emergency Operations Center.



Plague

The bacterial cause of plague is *Yersinia pestis*, an aerobic gram-negative coccobacillus. Although most cases occur in rural Africa, plague occurs in the United States as well. Human infection can occur via an infected fleabite, direct contact with infected animal tissue or secretions, or via aerosolized inhalation.¹

The incubation period for plague is ~2–7 days. There are 3 forms of plague: bubonic, septicemic, and pneumonic plague, with bubonic plague being the most common clinical form. Initial symptoms include fever, weakness, and headache. Within 24 hours of symptom onset, the bubo (painful regional lymph node swelling) presents, and can be very tender on palpation.¹

Although the untreated mortality rate for bubonic plague is high, it is reduced to <5% if detected early and treated with early, effective antimicrobial therapy⁴ (Table 5). Antibiotic therapy consisting of oral doxycycline is also indicated for PEP following biologic disaster or exposure to plague, specifically in asymptomatic individuals with direct close contact with patients with pneumonic plague, exposure to infectious body fluids, or aerosolized exposure to bioterrorism attack.^{4,13,14}

Table 5 – Treatments for Patients With Plague

Agent	Comments
Streptomycin	<ul style="list-style-type: none"> • Drug of choice • Not a practical agent for treatment due to limited availability in the U.S.
Gentamicin	<ul style="list-style-type: none"> • Preferred alternative agent • Dosage must be adjusted in patients with impaired renal function to assure therapeutically adequate, but not excessive blood levels
Ciprofloxacin	<ul style="list-style-type: none"> • FDA approved based on the FDA Animal Rule • Extremely limited human clinical efficacy data • Still considered first-line treatment in the U.S.
Levofloxacin	<ul style="list-style-type: none"> • FDA approved based on the FDA Animal Rule • Extremely limited human clinical efficacy data • Still considered first-line treatment in the U.S.
Doxycycline	<ul style="list-style-type: none"> • FDA approved • Clinical data in humans indicates comparable efficacy to gentamicin for patients with bubonic plague
Chloramphenicol	<ul style="list-style-type: none"> • Not readily available for use in the U.S. • May be useful for rare complications (ie, plague meningitis) • Dosage should be adjusted in patients with hepatic or renal impairment

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A potential bioterrorist aerosolized spread should also be suspected in an area with abnormally large numbers of previously healthy individuals who develop severe, rapidly progressive pneumonia with hemoptysis, although the confirmatory diagnosis is usually made by obtaining cultures of infectious fluid and identifying *Y. pestis*.⁴



Tularemia

Tularemia, an infectious bacterial zoonotic disease, affects animals and human beings, and is caused by *Francisella tularensis*, small aerobic gram-negative coccobacilli with 2 clinically significant subspecies of which type A is the most virulent.¹

Infectious exposures can occur from bites from mosquitos, ticks, or horseflies, contact with contaminated animal tissue or fluids, ingestion of contaminated food or water; or inhalation of infectious aerosol droplets.¹ Aerosolized transmission is the most likely route of dissemination as a biological weapon in a terrorist attack.

The definitive diagnosis can be made by culture of infected fluid (e.g., sputum) or tissue and recovery of *F. tularensis*. If tularemia is suspected, the microbiology laboratory should be notified to take special safety precautions in processing the specimen.

Pharmacotherapies for tularemia are listed in **Table 6**.

Table 6 – Agents for Treating Tularemia

- Streptomycin (preferred)
- Gentamicin (preferred alternative if streptomycin is unavailable)
- Ciprofloxacin (oral preferred if other IV agents unavailable)
- Doxycycline (oral preferred if other IV agents unavailable)
- Chloramphenicol

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Smallpox

Smallpox is an infectious viral disease caused by the DNA virus, variola, with 2 primary forms: variola major (the more severe form) and variola minor. Although smallpox is considered to be eradicated,¹⁵ it still exists at 2 secured locations approved by the World Health Organization (WHO).

Smallpox is transmitted person-to-person via respiratory droplets, with secondary infections occurring in close contacts of the index patients. The period of infectivity begins at the onset of rash and lasts ~7–10 days, decreasing as scabs begin to appear. The incubation period has a range of 7–19 days. Clinical features include high fevers, malaise, prostration, headache, backache, and delirium in some patients, followed by a maculopapular rash that eventually forms pustules. Scabs begin to form 1 to 2 weeks later.¹

The fatality rate in unvaccinated individuals is 30%, in contrast to roughly 3% in vaccinated patients.¹ ACAM2000 (live, replication-competent vaccinia virus) Aventis Pasteur Smallpox Vaccine (APSV; live, replication-competent vaccinia virus), and Imvamune (live attenuated replication-deficient vaccinia virus) are the 3 vaccines currently stocked in the U.S. SNS. Although not available to the general public, ACAM2000 is the only vaccine approved by the FDA.

Initial diagnosis in the setting of an outbreak is based on clinical manifestations, but a definitive diagnosis is reached by isolating the virus in cell culture or, more likely, by real-time PCR.¹ Treatment is primarily centered on supportive care because no FDA-approved agents are available. Investigational treatments for smallpox can be found in **Table 7**.

Table 7 – Investigational Agents for the Treatment of Smallpox

- Cidofovir (IV)
- Brincidofovir
- Tecovirimat

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Ebola and Zika Viruses

Ebola is a filovirus that causes severe, often deadly disease, with clinical features of fever, headache, vomiting, diarrhea, and hemorrhage, leading to multiorgan system failure. There is no known effective treatment, so management consists of intensive supportive care.¹

Zika, a flavivirus originally from Uganda, has spread to the United States (Florida and Texas), as well as Central and South America. The virus has multiple modes of transmission, with the primary being the bite of an infected mosquito but also through vertical transmission and sexual contact.¹

Although Zika infections are usually not life threatening, infection during pregnancy is associated with adverse fetal outcomes. Presently, there are no available effective pharmacotherapies or prophylaxis. Symptoms include fever, rash, arthralgia, conjunctivitis, and headache. Insect repellents containing active ingredients approved by the Environmental Protection Agency (EPA) should be used to prevent mosquito bites.¹⁶

The Role of the Pharmacist

The authors note that pharmacists play a “multifaceted and important” role in disaster preparedness and disaster response.

“By training, pharmacists are the medication experts and should be the lead in managing medication supply chains and distribution systems, such as procurement, storage, compounding, and dispensing in emergency situations,” the authors state.

A pharmacist's expertise “also includes clinical knowledge that can aid physicians and other prescribers in drug information consultation and treatment decision making” and that, in addition, pharmacists “also possess the ability to provide direct patient care by medication therapy management, adherence counseling, monitoring, and immunization.”

The authors recommend 2 resources that provide more specific guidance to pharmacists.

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►► Sources are available at article's URL.



XDR Typhoid is now epidemic in Pakistan

By Patricia Doyle PhD

Source: <http://rense.com/general96/xdr-typhoid-is-now-epidemic-in-pakistan.html>



Apr 19 – **The 1st known epidemic of extensively drug-resistant typhoid is spreading through Pakistan, infecting at least 850 people in 14 districts since 2016, according to the National Institute of Health Islamabad.** The typhoid strain, resistant to 5 types of antimicrobial agents, is expected to disseminate globally, replacing weaker strains where they are endemic. Experts have identified only one remaining oral antibiotic -- azithromycin -- to combat it; one more genetic mutation could make typhoid untreatable in some areas.

Researchers consider the epidemic an international clarion call for comprehensive prevention efforts. If vaccination campaigns and modern sanitation systems don't outpace the pathogen, they anticipate a return to the pre-antibiotic era when mortality rates soared. "This isn't just about typhoid," said Dr Rumina Hasan, a pathology professor at the Aga Khan University in Pakistan. "Antimicrobial resistance is a threat to all of modern medicine -- and the scary part is, we're out of options."

Typhoid fever, caused by the *Salmonella* [enterica serotype] Typhi bacterium, is a highly infectious disease transmitted by contaminated food or water. It causes high fevers, headaches, and vomiting. About 21 million people suffer from typhoid each year, and about 161 000 die, according to the WHO.

Typhoid is endemic to Pakistan, where poor infrastructure, low vaccination rates, and overpopulated city dwellings persist. Doctors in the Sindh province were not surprised by an



outbreak in November 2016 -- until cases proved unresponsive to ceftriaxone, used to treat multidrug-resistant, or MDR, strains of typhoid.

Only 4 isolated cases of extensively drug-resistant, or XDR, typhoid had previously been reported worldwide, according to Dr Elizabeth Klemm, an infectious disease geneticist at the Wellcome Sanger Institute in England. The outbreak's origins were clear: Early case mapping revealed large clusters of victims around sewage lines in the city of Hyderabad. Dr Hasan's colleagues visited the region and found water sources that could be contaminated by leaking sewage pipes. 4 deaths have been reported so far, according to the National Institute of Health Islamabad. At least one travel-related case has been detected in the United Kingdom.

Genetic sequencing revealed that a common, aggressive MDR typhoid strain called H58 interacted with another bacteria, likely *E. coli*, and acquired from it an additional DNA molecule, called a plasmid, that coded for resistance to ceftriaxone. The findings were disturbingly simple: XDR strains can materialize in one single step, virtually anywhere where the H58 strain and the added plasmid are both present -- whether a sewer system or even a single human gut.

"There are multiple worst-case scenarios," said Dr Klemm. "One is that this strain spreads to other regions through migration. But the other is that it pops up elsewhere on its own -- plasmids with drug resistance are everywhere." But the accumulation of resistance genes in the Sindh strain was hardly an ambush, according to a commentary by vaccine experts at the University of Maryland School of Medicine. The 1948 discovery of antimicrobial treatment for typhoid plunged the infection's fatality rate from almost 1 in 4 to just 1 in 100, triggering "an epic thrust-and-parry duel" between powerful drugs and "a wily bacterial foe's stepwise acquisition of resistance to them," wrote Dr Myron M Levine and Dr Raphael Simon.

Doctors still prescribe an estimated 50 million doses of antibiotics for typhoid globally each year. In Karachi, the capital of Sindh province, antibiotic resistance is increasing by 30 percent each year, according to the WHO; at that rate, all typhoid cases in the city will be resistant to multiple drugs by 2020. Physicians are treating the Sindh strain with azithromycin and other more expensive treatments that must be administered in hospital settings. Once we aren't able to treat this effectively, we're going back to the pre-antimicrobial era. That would mean a lot of fatalities in our future," Dr Klemm said. To preserve the last line of defense, public health officials have launched a campaign to vaccinate 250 000 children in Hyderabad using a new typhoid conjugate vaccine, Typbar-TCV, recently prequalified by the WHO. The vaccine lasts at least 5 years and can be given to children as young as 6 months old, according to the WHO.

Experts are also reinforcing hygiene habits for prevention: washing hands frequently, boiling drinking water, and eating well-cooked foods. In the longer term, modern sanitation infrastructure is needed.

The vaccination campaign has faced local opposition, according to local news reports, amid rumors that the vaccines have been poisoned in a Western effort to harm children. Similar suspicions have persisted since 2011, when a posed hepatitis B campaign helped gather intelligence before the Abbottabad raid that killed Osama bin Laden. 2 polio vaccination workers were killed in Pakistan in January 2018.

GAVI, The Vaccine Alliance, a public-private global health partnership working to increase access to immunization, has pledged USD 85 million to ensure that typhoid vaccines reach developing countries.

"It's a global concern at this point," said Dr Eric Mintz, an epidemiologist at the CDC. "Everything suggests this strain will survive well and spread easily -- and acquiring resistance to azithromycin is only a matter of time."



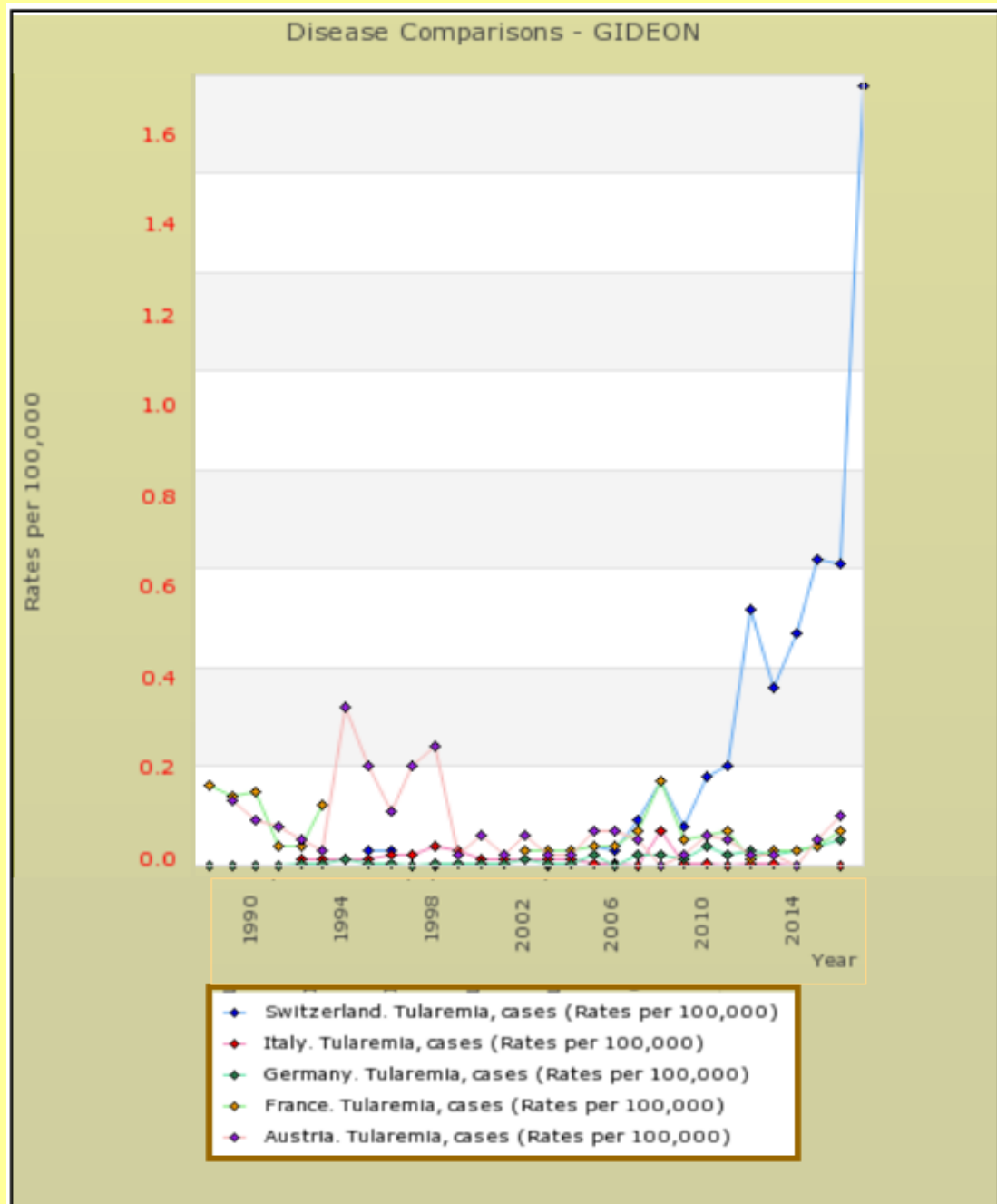
Tularemia in Switzerland

Source: <https://www.gideononline.com/2018/04/21/tularemia-in-switzerland/>



Apr 22 – The incidence of tularemia in Switzerland has increased dramatically during the past decade. As depicted in the following chart, disease rates in this country (per 100 000 population) are currently 10-fold those reported by bordering countries [1-3]. See graph at:





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