

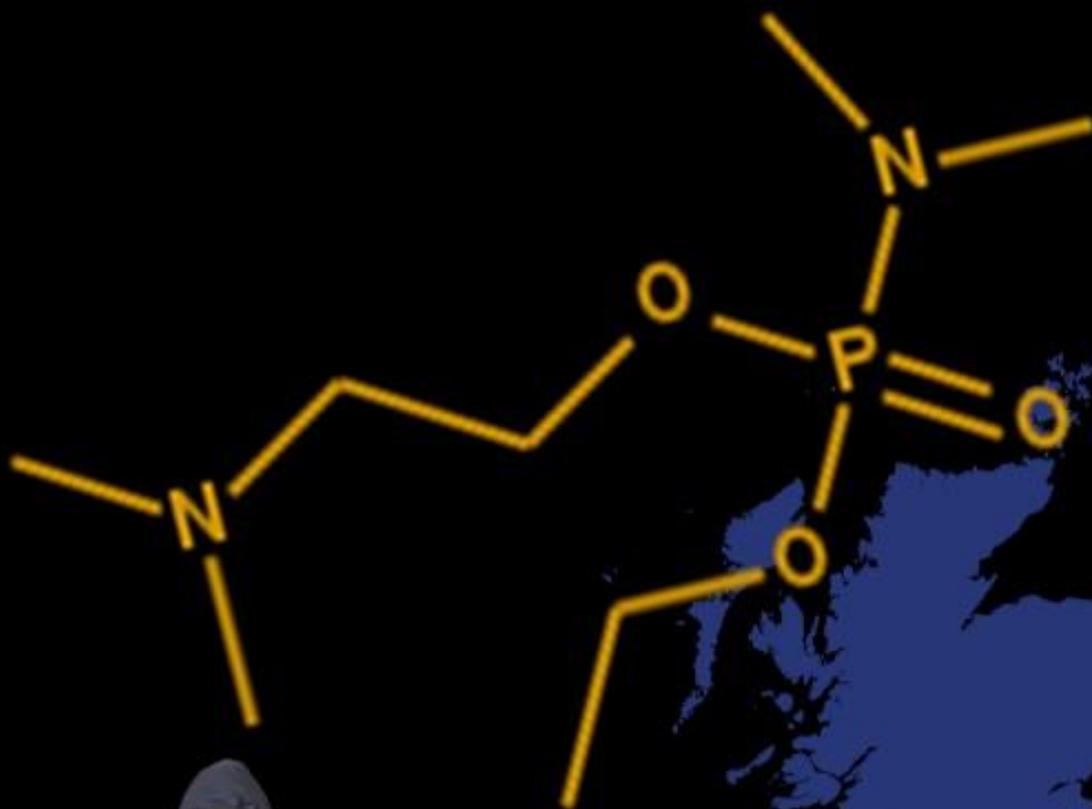
Dedicated to Global First Responders

CBRNE

NEWSLETTER **TERRORISM**



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CBRNE-Terrorism Newsletter – 2018[©]

March 2018

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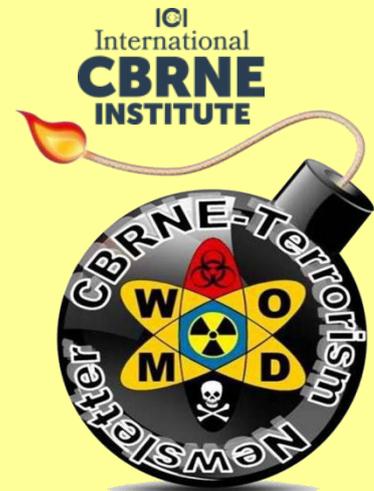
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EDITOR'S CORNER



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

March 2018 was characterized not by quantity but of killing quality due the use of an exotic nerve agent ex. Soviet Union era. What we had so far?

1. High School shooting: A gunman died and two students were critically injured after a shooting at a high school in Maryland. Great Mills High School confirmed an attack in their school just 8am (12pm GMT) on Tuesday, and said a gunman entered the school and shot two people before being “engaged by the school resource officer”. County Sheriff Timothy Cameron said it was not immediately known if the resource officer was the one who wounded the gunman.

2. Serial parcel bombing: The two FedEx bomb incidents hours apart on Tuesday morning (March 20), brought to six the number of explosive devices - five of them detonated - that have come under investigation in Texas this month as the work of a suspected serial bomber. All but one of incidents have occurred in Austin. The exception came early on Tuesday when a package filled with nails and metal shrapnel exploded at about 12:30 a.m. on a conveyer belt at FedEx distribution center near San Antonio, knocking a female employee off her feet, officials said.

3. Nerve agent assassination: A Russian ex-spy Sergei Skripal and his daughter Yulia, were exposed to the nerve agent “Novichok” in Salisbury, UK and are still in critical condition. Many other people required medical assistance. It is not for sure if Novichok is the causative agent and we will have to wait for some lab results confirming the nature of the chemical and perhaps its origin although Russia denied all charges.

In addition to the above, we continue to watch the multilevel geostrategic game in Middle East between Turkey, Syria, Iraq, Russia and the United States and understand that it is all about own interests and money. There are no unions, alliances, bonds or history. Each nation is alone and can only have transient good relations with other nations based on profit and interests. This is the only truth and we have to live with it.

Take care and pray for a fraction of logic that will preserve global peace.

The Editor-in-Chief



Απέκτησε η μύγα κώλο κι' έχασε τον κόσμο όλο!



By Rachel Ehrenfeld

Source: https://www.americanthinker.com/blog/2018/02/epps_aviation_vs_hijab.html

Feb 28 – **A growing number of fashion runways and department stores promote the hijab as the latest "chic" thing to wear, a "fashionable identity symbol"**. The buying power of fast-growing Muslim communities in the West is being used by Islamists to entice designers to present the "latest trend" with models who wear "covered-up clothes, heads in the [swathing scarves](#)."

The power of the Islamist purse, supported by politically correct media and progressive identity propaganda, also helps to promote the hijab at many workplaces, even those with strict dress code banning any religious symbol. The hijab is forbidden throughout the air travel industry (except in Saudi Arabia; Iran; and Aceh, Indonesia). Nonetheless, it has become a powerful tool for shakedowns by Islamist groups masquerading as "civil rights" activists in Europe and the United States.



Such Islamist groups are using lawfare to intimidate and extort Western industries, institutions, and private companies. Their objective is clear: force acceptance of Islamic customs, even though they contradict secular, globally accepted industry standards and corporate policies. These groups have been targeting U.S. aviation and aerospace firms.

Taking advantage of Western democratic systems, well funded entities such as the Council on American Islamic Relations (CAIR) are constantly attempting to impose Islamic religious values and practices on the West, severely undermining freedom of speech and intimidating citizens. Consequently, people fearing backlash and false accusations often choose to not speak up, even when their own safety is imperiled. Lawfare has proven to be a useful weapon.

But not against Patrick Epps, owner of [EPPS Aviation](#), a family-owned company at Atlanta's Peachtree Airport. EPPS Aviation adheres to a strict employee dress code, which bans wearing any religious garb. The company's policy reflects standards observed throughout the international aviation sector. Throughout EPPS Aviation's fifty-two years of operation, employees complied with the company dress code as a condition of employment – that is, until June 2015, when a female Muslim employee – who had willingly observed the FBO's dress code for twelve years – suddenly demanded the "right" to wear a hijab. As the company's front-desk customer service representative, she was the face of EPPS Aviation, the first person to greet transient pilots and their passengers.

When first hired as a customer service representative by EPPS in 2003, Camara Aissatou, a Muslim immigrant from Senegal, accepted the company's dress code policy. But in February 2015, she requested and was denied the privilege of wearing a hijab at work. Patrick Epps, the company's owner, refused on grounds that "wearing a hijab at the front desk violated the dress code applicable to CSRs [and] the company could have lost business by plaintiff wearing a hijab at the front counter, when no one else in the industry allowed it."

However, trying to accommodate a good employee's desire to wear religious garb at work, Epps offered Aissatou "a non-frontline accounting position, where she would not be required to wear a uniform." She would continue to receive the same pay, work schedule, and benefits that she had as a CSR. She rejected the transfer and was terminated.

Soon, Epps received two letters from the Georgia branch of CAIR, claiming that EPPS Aviation was violating Ms. Aissatou's civil rights by refusing to accommodate her religious preferences. Included was a brochure spelling out Muslim practices and an offer to "mediate." Epps ignored the CAIR missives. On November 14, 2016, the company was [sued by Ms. Camara](#) for violation of civil rights, religious discrimination, and retaliatory discharge. CAIR was assisting her.

Patrick Epps, a proud American and former U.S. Air Force pilot, refused to be blackmailed by CAIR's blatant extortion attempt. He fought back. On August 22, 2017, after EPPS Aviation had spent more than \$100,000 in legal fees, U.S. Magistrate Judge Walter E. Johnson ruled in favor of EPPS Aviation.



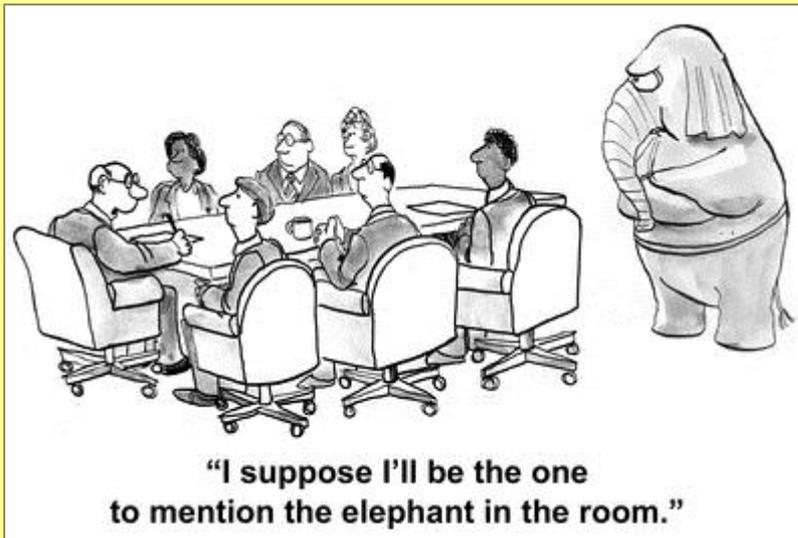
Americans should thank Patrick Epps and follow in his footsteps.

A World Without Islamophobia

By Burak Bekdil

Source: <http://www.meforum.org/7219/a-world-without-islamophobia>

Feb 28 – Turkey's leaders, most notably President Recep Tayyip Erdogan, have a habit of expressing their loathing for "Islamophobia" in the West. They are right to do so. All the same, their condemnation of the bad is, almost always, incomplete and selective.



Ahmet Orken is one of Turkey's best-known professional cyclists and the multiple Turkish time trial champion. In September, he signed a two-year contract with Israel Cycling Academy. In the aftermath of the Turkish public outcry over U.S. President Donald Trump's decision to move the U.S. embassy in Israel to Jerusalem, Mr Orken, under pressure, had to quit his Israeli team and join a homegrown Turkish

team. "It was a difficult period in the last two weeks," he said, referring to pressure on himself and his family for having signed up with an Israeli sports team.

What phobia could have forced an athlete to quit his team just because a foreign head of state recognized a city as the official capital of another foreign country? Islamophobia?

In November, during the Miss Universe Pageant contest in Las Vegas, Miss Iraq (Sarah Idan) and Miss Israel (Adar Gandelsman) uploaded images of themselves on their Instagram accounts, with the words "peace and love from Miss Iraq and Miss Israel." A month later the family of Miss Iraq was forced to flee the country because of this photo. Miss Israel's family still lives in Israel peacefully.

What phobia is it that forced an Iraqi family to flee their country just because their daughter posed with an Israeli contestant and posted the words "peace and love?" What phobia may have prompted threats of violence against the Iraqi family? What phobia so powerfully hates peace and love? Islamophobia?

The UK branch of Amnesty International, the global defender of civil liberties, recently banned UN Watch from speaking at their headquarters, joining politicians like Ahmadinejad, Assad, Qaddafi, Castro, and Chavez, who, over the years, have all tried to intimidate and silence UN Watch.

"In debates of the UN Human rights Council, ambassadors from Iran, Syria, Cuba, and the PLO routinely interrupt testimony from victims we bring, and urge the chairman to rule that I am out of order. I'm used to that by now. Yet never did I imagine that the world's largest human rights organization would join their ranks," said Hillel C. Neuer, executive director of UN Watch. "In a patent display of bigotry and intolerance, a human rights group that is supposed to defend freedom of speech and the right to argue is shutting down a debate in their offices."

Why, really, would a human rights watchdog ban another watchdog? It's not too difficult to guess. On February 5, UN Watch released a fifty-page report documenting ten years of UN indifference to combating Antisemitism. Would Amnesty ban UN Watch if it documented UN indifference to combating Islamophobia? Again, not too difficult to guess.

Ah, yes, the world would be a perfectly peaceful place to live in if Islamophobia did not exist.



Burak Bekdil is an Ankara-based political analyst and a fellow at the Middle East Forum.

Greece – Immigrant animals



Mar 05 – In the village of Moria (Lesvos Island) next to an immigrants/refuges hot-spot, thieves broke into a house, killed two cats and ate one of them RAW leaving only the fur and the spine...

A new, huge review of gun research has bad news for the NRA

Source: <https://www.vox.com/policy-and-politics/2018/3/2/17050610/guns-shootings-studies-rand-charts-maps>

Mar 02 – For decades, the federal government, with the support of the National Rifle Association, has made it very difficult to answer a question at the heart of American public health and safety: Does gun control work?



a [federal funding freeze](#) on gun policy. But studies have gone on — just without. And on Friday, a nonpartisan think tank, the RAND Corporation, released the results so far of its Gun Policy in America initiative, a two-year dive into the research on gun violence and the laws trying to curtail it.

The answer is hugely important given that guns killed [nearly 39,000 Americans](#) in 2016 alone. But after research on gun violence in the 1990s found that firearms do not — contrary to NRA talking points — make people safer, the group backed research.

federal funding. RAND Corporation, America initiative, a two-year dive into the research on gun violence and the laws trying to curtail it.



[RAND's extensive report](#) does not make any sweeping declarations about gun policy. It does, however, make clear that gun control research is very limited, calling on [Congress](#) to lift the NRA-backed funding freeze. It argues that this freeze has, by making it difficult to conduct better studies, led to a confusing empirical environment, where it's easy for groups on both sides of the debate to cite shoddy work that supports their prior beliefs.

"The studies that have been done often reach opposite conclusions to each other," Andrew Morral, the head of RAND's gun policy initiative, told me. The lack of thorough research, he added, "creates this kind of fact-free environment in which people can cherry-pick any study that happens to support what their priors are on the effects of the law."

Morral's team spent two years reviewing US-based studies published over the past several decades, pulling out the most rigorous to try to find some "incontrovertible truths." RAND concluded that, first and foremost, far more research is necessary. "Many of the matters that people disagree on when they disagree on gun policy have not been rigorously studied in ways that produce reasonably unambiguous results," Morral said.

But there were some things that could be gleaned from the available evidence. While RAND as a nonpartisan group avoided any sweeping policy conclusions in its analysis, its review does seem to point in a direction, based on my own reading: More permissive gun policies lead to more gun deaths, while more restrictive policies lead to fewer gun deaths. Coupled with other evidence in this area, that supports the idea that more guns lead to more gun deaths.

Given that America is dealing with an immediate gun violence problem, as mass shootings and deaths pile up, the report is worth taking seriously. At the very least, there's enough evidence to suggest that the federal government should stop refusing to fund research on policies that really could work to save thousands of lives every year.

►► [Read the rest of this article at source's URL.](#)

Trial of two Greek officers captured by Turkey postponed

Source: <https://www.inewsgr.com/28/Trial-of-two-Greek-officers-captured-by-Turkey-postponed.htm>

Mar 05 - The Greek government, and especially the defence ministry, is monitoring the situation, hoping



that the officers might be released immediately, after they are handed down a suspended sentence for illegal entry into a forbidden zone.

A Turkish court on March 2 placed two Greek soldiers under arrest on espionage charges after they illegally crossed into Turkey, state media reported, in a move that risks a new flaring of tensions between Ankara and Athens.

The court in the western province of Edirne ordered the pair be charged with "attempted military espionage" and "entering forbidden military territory", state news agency Anadolu said.

The Greek army said the

two soldiers lost their way in poor weather while patrolling the area around the Evros River that separates the two countries.

The soldiers also said they got lost because of the weather conditions.



EDITOR'S COMMENT: No special comment other than that this was a sound proof that we are alone. EU, NATO, mighty USA, and Russia just wished us a happy end. It is so wonderful to belong to the West! We will see what will happen in the coming weeks along with the high tension offshore (EU member state) Cyprus (where part of the island is under Turkish occupation) between Turkey and US/EU.

Number of people killed by animals in the U.S. remains unchanged

Source: <http://www.homelandsecuritynewswire.com/dr20180306-number-of-people-killed-by-animals-in-the-u-s-remains-unchanged>

Mar 06 – Bites, kicks, and stings from farm animals, bees, wasps, hornets, and dogs continue to represent the most danger to humans, according to a new study. The study shows that animal encounters remain a considerable cause of human harm and death. Researchers analyzed fatalities in the United States from venomous and nonvenomous animals from 2008-2015. They found that while many deaths from animal encounters are potentially avoidable, mortality rates did not decrease from 2008-2015. **Each year in the United States alone, over one million emergency room visits and approximately \$2 billion in healthcare spending are attributable to problematic animal encounters.**

Low-cost arsenic sensor could save lives

Source: <http://www.homelandsecuritynewswire.com/dr20180307-lowcost-arsenic-sensor-could-save-lives>

Mar 07 – Worldwide, 140 million people drink water containing unsafe levels of arsenic, according to the World Health Organization. Short-term exposure causes skin lesions, skin cancer and damage to the cognitive development of children, while long-term exposure leads to fatal internal cancers. A new low-cost, easy-to-use sensor which can test drinking water for arsenic in just one minute.

Crafting a US Response to Turkish Intransigence

By Gregg Roman

Source: <http://www.meforum.org/7239/crafting-a-us-response-to-turkish-intransigence>

Mar 07 – In a rare public policy speech in mid-December, National Security Advisor H.R. McMaster singled out Turkey as one of the two leading state sponsors (alongside Qatar) of "radical Islamist ideology." The Turkish government protested the statement as "astonishing, baseless and unacceptable," which means it was a pretty good start. McMaster's speech highlighted an emerging recognition among Trump administration officials that Recep Tayyip Erdoğan's Turkey poses a pernicious threat to US interests in the Near East. Since McMaster's speech, Erdoğan has invaded Afrin, Syria (a city then controlled by America's Kurdish allies), massacring women, children and the elderly; promoted the use of child soldiers in his fight against the Kurds; and undermined U.S. sanctions against Iran. A Manhattan Federal District Court's guilty verdict against a Turkish banker accused of helping Iran evade sanctions speaks volumes about the growing threat posed by Erdoğan's Turkey. Although Erdoğan was not charged in the case, "testimony suggested he had approved the [defendant's] sanctions-busting scheme" to launder billions of dollars for Iran beginning in 2012, according to the New York Times.

That Erdoğan was secretly weakening U.S. sanctions right when Iran was feeling the pinch should come as no surprise. He has been repositioning Turkey as an adversary of the United States for years — covertly aiding ISIS in Syria (before switching sides on a dime to align with Russian forces), overtly embracing Hamas terrorists, flooding Europe with migrants, and hosting an international summit condemning U.S. recognition of Jerusalem as the capital of Israel, to name just a few of the lowlights. While wishful thinkers still hold out hope that U.S.-Turkish relations are strained by short-term concerns and eventually will rebound, a growing chorus



of voices led by Daniel Pipes contends that "Erdoğan's hostile dictatorship" has passed the point of no return and cannot be reconciled with American interests and values. Erdoğan's increasingly brutal methods of governance, particularly since a July 2016 failed coup against his regime, is wholly unbecoming of a NATO ally. In late December, he issued an emergency decree that effectively legalizes politically-motivated lynching.

Why does the United States continue to allow Erdoğan's malign behavior in the region? And, more importantly, what should policymakers do about it?

For Washington, it is time both to up the ante in seeking a course correction from Erdoğan and to prepare for the worst. This path forward should be guided by the following basic principles.

No more silence

Since Erdoğan goes out of his way to lambast the United States at every turn, Washington should make a practice of not holding back when it censures his behavior.

The United States should speak out against Erdoğan's continuing oppression of minority Kurds, in Turkey and in neighboring Syria and Iraq. In particular, it should call for the release of Kurdish political leaders jailed by Erdoğan, such as Selahattin Demirtaş, co-chair of the Kurdish-dominated Peoples' Democratic Party (HDP). The US should invite Kurdish representatives to visit Washington for high-profile meetings at the White House, the State Department and the Pentagon.

No more favors

Last June, the United States International Trade Commission issued a report finding that Turkey has been subsidizing the sale of steel reinforcing bars (rebars) in the United States, a judgment that ordinarily leads to the imposition of anti-dumping tariffs. As of yet, this hasn't happened. But it must.

More serious penalties should await Turkey for purchasing the S-400 missile system from Russia last year, which clearly ran afoul of new U.S. sanctions on Russia (the manufacturer of the S-400 has been explicitly blacklisted by the State Department). The White House should immediately put to rest speculation that it intends to waive these penalties.

No more trust

Whichever direction Erdoğan's ambitions take Turkey, one thing is certain — his regime cannot be trusted with sensitive military technology and intelligence. The United States should expel Turkey from the nine-nation consortium producing the next-generation F-35 fighter jet. The risk that the plane's technological secrets will find their way from Turkey to Russia or Iran is too great.

The United States should remove dozens of nuclear weapons presently stored at Incirlik air base in southern Turkey. Although adequate safeguards are in place, these weapons serve no practical purpose (aircraft stationed at the base cannot load them) and their continued presence might be misconstrued as a U.S. endorsement of Erdoğan's reliability as an ally.

No more second chances

Erdoğan's government arrested more than a dozen American citizens of Turkish descent — including a NASA scientist who happened to be visiting family—in the wake of the July 2016 coup attempt. These arrests, as well as those of tens of thousands of Turkey's own subjects, are based on unspecified allegations concerning these individuals' involvement in the coup. Most incarcerated Americans were denied consular access until recently. At least seven are still being held in Turkish prisons— more or less as hostages. Erdoğan has offered to trade them for the extradition of a political rival living in the United States. While on a May 2017 visit to Washington, Erdoğan ordered his security detail to viciously attack peaceful protesters outside the Turkish ambassador's residence. A similar, equally appalling episode happened when he visited in 2016.

Washington must make it crystal clear to Erdoğan that any further egregious violations of the laws of the United States, the sanctity of its soil, or the rights of its citizens will result in immediate sanctions banning him and his lieutenants from stepping foot in this country (or inside one of its embassies) ever again.



In conclusion, while Turkey's relative political stability, economic strength and military power make it a desirable ally, they also make it a formidable enemy. Now is the time to make it clear to Erdoğan and his subjects that America no longer plays nice with its enemies.

Gregg Roman is director of the Middle East Forum.

A Month of Islam and Multiculturalism in Britain: February 2018

"The best place to hide a tree is in a forest."

By Soeren Kern

March 12, 2018

Source: <https://www.gatestoneinstitute.org/12019/islam-multiculturalism-britain-february>

"I'd like to know whose bright idea this was. It is ridiculous and not the business of a Government department. I can't see the Foreign Office promoting Christianity or the handing out of crosses." — Tory MP Andrew Bridgen in response to a decision by Foreign Office officials to give away taxpayer-funded Islamic headscarves, claiming they symbolized "liberation, respect and security."

- ◆ A review chaired by Professor Mona Siddiqui, a professor of Islam, proposed legislative changes that would require Muslim couples to undergo a civil marriage before or at the same time as their Islamic ceremony, to provide women with legal protection under British law. Nearly all those using Sharia councils were females seeking an Islamic divorce.
- ◆ "We, the United Kingdom, produced Jihadi John. Something in our cities and towns... have produced the most infamous terrorists. We need to start asking: what is it in our culture, in our cities, in our towns that is producing these sorts of monsters." — Maajid Nawaz, British counter-extremism activist.
- ◆ Islamic charities vulnerable to extremists receive £6 million a year from taxpayers in gift aid, according to a new report. The report accused charities of supporting "the spread of harmful non-violent extremist views that are not illegal; by providing platforms, credibility and support to a network of extremists operating in the UK."

February 1. Foreign Office officials [invited](#) 1,800 female staff members to wear Islamic headscarves to mark World Hijab Day. The department gave away taxpayer-funded headscarves, claiming they symbolized "liberation, respect and security." Critics, citing the compulsory veiling of women in Islamic countries such as Iran and Saudi Arabia, said the garment is a symbol of male oppression. Tory MP Andrew Bridgen said, "I'd like to know whose bright idea this was. It is ridiculous, a complete waste of taxpayers' money and not the business of a government department. I can't see the Foreign Office promoting Christianity or the handing out of crosses."

February 1. Max Hill QC, the independent reviewer of terrorism legislation, [declared](#) that it is "fundamentally wrong" to use the phrase "Islamist terrorism" to describe attacks carried out in Britain and elsewhere. Hill said that the word terrorism should not be attached "to any of the world religions" and that the term "Daesh-inspired terrorism" should be used instead. Tory MP Philip Davies [blasted](#) Hill for "pandering" to political correctness: "It might not be acceptable in the trendy metropolitan circles he moves in, but all he's doing is showing how out of touch he is with the public at large. I suggest this politically-correct snowflake gets out more."

February 1. The Home Office [published](#) the report of an 18-month independent review into the application of Sharia law in Britain by so-called Sharia councils. The review, chaired by Professor Mona Siddiqui, a professor of Islam at the University of Edinburgh, proposed legislative changes that would require Muslim couples to undergo a civil marriage before or at the same time as their Islamic ceremony. Such a requirement would provide women with legal protection under British law. The review said that nearly all those using Sharia councils were females seeking an Islamic divorce. As a "significant number" of Muslim couples do not register their marriages under civil law, "some Muslim women have no option of obtaining a civil divorce." The report also recommended that Sharia councils be subject to regulation.



February 4. Paul Song, a 48-year-old pastor, was [fired](#) from his job as a chaplain at Brixton prison in south London after the managing chaplain, Imam Mohammed Yusuf Ahmed, accused Song of promoting "extreme" Christian views. Song, who said he was ousted on the basis of false claims by a Muslim prisoner, said the imam was intent on changing "the Christian domination" inside the prison.

February 4. A British intelligence agent [warned](#) that hundreds of Islamic State jihadists have returned to Britain and are intent on recruiting more jihadists to carry out attacks in the United Kingdom. He said that most of the returnees have taken cover in areas with large Muslim populations, including Birmingham, Leicester, London and Luton. "The best place to hide a tree is in a forest, and this is what those who have fought for ISIS are doing," he said. "They have basically relocated their HQ from Syria to the UK. The fear is they will begin recruiting and will wage terror on British soil."

February 8. The number of sheep slaughtered in Britain without first being stunned has doubled to more than three million, [according](#) to official statistics. The increase was attributed to the Muslim community eating more sheep meat and "an enhanced religious observance."

February 8. Mohammed Farooq, a 44-year-old man from Croydon who threatened to "blow up" the Crescent Primary School in Selhurst, [walked free](#) after his defense attorney persuaded the court that "he was not aware of what he was doing." She told the court that he had been drinking as a result of the break-up of his 18-year marriage, and was "stressed out" because he had not seen his children. Farooq received a four-month suspended prison sentence.

February 9. Ahmed Abdoule, a 33-year-old Somali living in East Hull, was [sentenced](#) to 11 years in prison for raping a teenage girl. Hull Crown Court heard how Abdoule threatened to kill the victim if she told anyone. Judge Mark Bury told Abdoule: "She told you she was a virgin to try and get you to stop. You said to her, 'You cannot be, you are white.'"

February 10. Mohamed Abdullahi Mohamud, a 31-year-old terror suspect with 17 aliases was [found](#) to be working at London's Heathrow Airport. An investigation found that Mohamud lied about his criminal past — he has multiple convictions for robbery, sexual assault and money laundering — and that no full background check was conducted before he was granted access to the airport's tarmac.

February 11. Brian Walker, a 63-year-old scout master from Bristol, was [ousted](#) for comparing a Muslim scout leader who wore a face-covering niqab to the Star Wars villain Darth Vader. Walker complained to *Scouting* magazine, the Scout Association's official publication, after it featured the woman who it said "cut a striking figure" "in her full Islamic veil" "when she takes the girls out canoeing." Walker emailed: "Canoeists don't dress like this; they need all-round unobstructed vision so they protect the group. They will most likely drown wearing that Darth Vader tent!" Walker also [accused](#) the association of increasingly promoting political correctness and interfaith issues above Christian values.

February 13. The British government [unveiled](#) a tool it says can accurately detect jihadist content and block it from being viewed. Home Secretary Amber Rudd told the BBC she would not rule out using the law to force technology companies to use it.

February 13. Maajid Nawaz, a counter-extremism activist, [blamed](#) Britain, not Islam, for creating the "Jihadi Beatles," four Britons who tortured and executed foreign aid workers and journalists in Syria. On LBC radio, he said:

"We, the United Kingdom, produced Jihadi John. We, the United Kingdom, produced his other acolytes around him in the so-called Jihadi Beatles. Something in our cities and towns, something in the atmosphere within our communities in this country have produced the most infamous terrorists, at least in my lifetime. We need to start asking that question: what is it in our culture, in our cities, in our towns that is producing these sorts of monsters."



February 14. Sir Michael Wilshaw, the former head of the Ofsted education regulator, [said](#) that there are 150 schools in Britain which require children to wear hijabs, and that the government was too politically correct to crack down on the problem.

February 16. Education Secretary Damian Hinds [said](#) it was "utterly wrong" for the head teacher of a leading primary school to have suffered abuse after banning the hijab for girls under the age of eight. His intervention came after Neena Lall, head of St Stephen's primary in Newham, came under fierce personal criticism — which likened her to Adolf Hitler — after banning young pupils from wearing the Islamic headscarf in school. The decision was reversed following a backlash from parents. "Schools are in charge of what is okay to wear to school and nobody should be subject to abuse and harassment — no school leader or school governor — as a result of that," Hinds said.

February 18. More than 200 mosques in Britain [opened](#) their doors to non-Muslims to mark Visit My Mosque Day, an "interfaith initiative" of the Muslim Council of Britain, an umbrella group linked to the Muslim Brotherhood.

February 18. London Modest Fashion Week [showcased](#) the latest styles in hijabs, abayas and long hemlines. The event was [aimed](#) at "breaking down stereotypes" in the fashion industry.

February 19. Blackburn Cathedral [announced](#) that would host a seminar called "Jihad of Jesus" which aims to "create a safe space to explore common ground and discuss the differences between the Muslim and Christian faiths." The announcement of the seminar came after the BBC aired a documentary questioning the relationships between religious communities in Blackburn. Senior Anglican clergy said that the BBC Panorama program "White Fright" did not paint an accurate picture of Blackburn.

February 20. Aweys Shikhey, a 38-year-old Dutch national originally from Somalia, was [found guilty](#) of trying to join the Islamic State. The court heard how Shikhey, a London delivery driver who has two wives, one in Holland and one in Kenya, was planning to elope with his Somali-Norwegian jihadi fiancée and travel from London to Turkey, and then on to Syria. The court also heard how he talked to other jihadists about attacking Queen Elizabeth, shooting Jews in Stamford Hill, north London, and football fans as they left Tottenham Hotspur's stadium. Shikhey awaits sentencing.

February 22. Zana Abbas Sulieman, a 27-year-old asylum seeker living in north-west London, was [sentenced](#) to nine years in prison for various terrorism offenses, including possessing and sharing a bomb-making video. Police said they found 32 Facebook accounts linked to Sulieman that contained terrorist-related material.

February 23. Archbishop of Canterbury Justin Welby [said](#) in a new book, *Reimagining Britain*, that Sharia law should never become part of the British legal system. He said the Islamic rules are incompatible with Britain's laws, which have developed over 500 years on the principles of a different culture. Welby also said that the arrival of large numbers of Muslims in Britain has led many to challenge the values of the majority population:



Archbishop of Canterbury Justin Welby said in a new book, *Reimagining Britain*, that Sharia law should never become part of the British legal system. He said the Islamic rules are incompatible with Britain's laws, which have developed over 500 years on the principles of a different culture. (Photo by Leon Neal/Getty Images)

"Sharia, which has a powerful and ancient cultural narrative of its own, deeply embedded in a system of faith and understanding of God, and thus especially powerful in forming identity, cannot become part of another narrative.

"Accepting it in part implies accepting its values around the nature of the human person, attitudes to outsiders, the revelation of God, and a basis for life in law, rather than grace, the formative word of Christian culture."

Welby's position reverses the one taken by his predecessor Lord Williams, who backed incorporating Sharia into the British legal system.



February 23. Ruzykhan Sayadi, a 23-year-old Afghan asylum seeker, was [sentenced](#) to 20 days in a rehabilitation program for threatening to carry out a terrorist attack by plowing a car into a group of white people and going on a knife rampage. Sayadi's lawyer successfully persuaded the judge that his client was frustrated at the slow pace of Britain's asylum process and had not intended to follow through with his threat. "He is in a pretty low state at the moment," Peter Du Feu said. "He is really at a low point because of his determination to achieve asylum status in this country." During sentencing, Judge Ian



Pringle said, "You do need some assistance and some change if you are going to establish yourself as a lawful citizen of this country in due course."

February 25. Islamic charities vulnerable to extremists receive £6 million (\$8.3 million) a year from taxpayers in gift aid, [according](#) to a report by the Henry Jackson Society. The charities are accused of promoting hardline speakers by giving them platforms, spreading their literature, providing them with credibility and enabling access to beneficiaries and the general public. The report accused charities of supporting "the spread of harmful non-violent extremist views that are not illegal; by providing platforms, credibility and support to a network of extremists operating in the UK."

February 25. The National Crime Agency (NCA), which is investigating child sexual exploitation in Rotherham, needs 100 more officers to tackle the unprecedented scale of abuse, [according](#) to the *Guardian*. The NCA has identified more than 1,500 potential victims and 110 suspects. Paul Williamson, the senior investigating officer on Operation Stovewood, said his team of officers had been able to contact only 17% of the possible victims because of a shortage of specially trained detectives. The operation is believed to have cost about £10 million (\$14 million) to date.

February 26. Ten members of a Muslim sexual grooming gang [appeared](#) at Bradford Crown Court on charges of raping a 16-year-old girl. The men were arrested after a friend of the girl called the BBC, which had just aired a report about Muslim sex gangs in Rotherham.

February 26. Aryan Rashidi was [sentenced](#) to 14 years in prison for raping a pregnant woman at knifepoint in her bed after climbing into her house through an open window. Rashidi, an Afghan national who had entered Britain illegally in a truck, said he did not know his birth date and claimed to be 15 or 16. A dental examination showed Rashidi to be at least 22 years old.

February 26. The number of anti-Muslim hate crimes in London [increased](#) by almost 40% in the past year, according to Scotland Yard. There were 1,678 anti-Muslim hate crimes reported in the capital in the year up to January 2018, up from 1,205 the year before. Mayor of London Sadiq Khan warned perpetrators they face arrest and prosecution under a "zero-tolerance" approach.



February 27. Gary Staples, a 50-year-old convert to Islam, was [sentenced](#) to three years in prison for posting homemade videos on YouTube glorifying the Islamic State. The father of four, who is unemployed and lives on welfare, was convicted of seven charges of encouraging acts of terrorism and one charge of disseminating terrorist material.

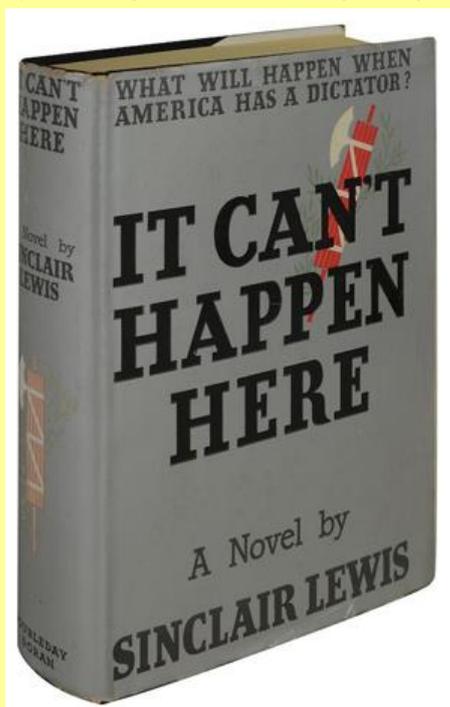
February 27. Radio Dawn, a Muslim radio station based in Nottingham, was [fined](#) £2,000 (\$2,750) for broadcasting a *nasheed* (an Islamic chant) which stated that violent acts committed against non-Muslims would bring honor to Islam. The *nasheed*, which was in Urdu and recited by a young boy, also included pejorative references to non-Muslims, who were repeatedly referred to as "Kuffar," the Arabic word for disbeliever, and, "Kaafir I Murdaar," meaning filthy disbeliever in Urdu. Ofcom, the British communications regulator, said the *nasheed* constituted hate speech. Station manager Sana Tariq [said](#) he did not agree with the song: "I was in disbelief, I couldn't believe something like this had been played. It's not something Radio Dawn believes in. Islam gives the message of peace and that's what we try to present."

Soeren Kern is a Senior Fellow at the New York-based Gatestone Institute.

It could happen in Britain

Source: <https://www.economist.com/news/britain/21738377-british-institutions-may-not-withstand-authoritarian-populist-wave-it-could-happen-britain?src=scn/tw/te/bl/ed/itcouldhappeninbritainbagehot>

Mar 12 – In his dystopian novel of 1935, "**It Can't Happen Here**", Sinclair Lewis described the rise of an American Caesar, Berzelius "Buzz" Windrip. Buzz easily defeats Franklin Roosevelt for the presidency by promising to make America great again. He then sets about destroying the country's system of checks



and balances, by fomenting fear and unleashing activists, while sensible Americans comfort themselves with the belief that their country is immune to authoritarian takeover.

Donald Trump's election has propelled Lewis's novel back onto the bestseller list and provoked a lively debate on the question of "Can it Happen Here?", the title of a new book edited by Cass Sunstein, a Harvard professor and former adviser to Barack Obama. It is time for Britain to engage in a similar debate. The British are even more confident than the Americans about their immunity to extremism. Britain hasn't had a violent revolution since 1640-60. Rather than rallying to Oswald Mosley's fascists in the 1930s, the British treated them as figures of fun—black shorts rather than blackshirts, in P.G. Wodehouse's satire. But the next five years could test Britain's immune system to the limits.

One threat to the liberal order comes from Jeremy Corbyn's Labour Party. Mr Corbyn is a classic left-wing populist, convinced that life is a never-ending struggle between the virtuous masses and the wicked elites. Some of his main advisers are Marxists who regard political institutions as instruments of class power. Mr Corbyn became leader by bypassing Labour MPs and appealing to party activists. He

has warned right-wing newspapers that "change is coming". John McDonnell, the shadow chancellor, called for a million people to take to the streets to protest against the result of last year's general election. High among Labour's priorities is repealing legislation that prevents co-ordinated strikes.

A second threat comes from the incendiary right. Brexiteers invoke the "will of the people" to suggest that anything but their own maximalist interpretation of Brexit is illegitimate. Theresa May has revived an ugly 1930s trope about "citizens of nowhere". The *Daily Mail* has



described judges as “enemies of the people”. In a recent tweet Nadine Dorries, a Tory MP, labelled Sir John Major, the leader of her party in 1990-97, a “traitor”.

Such extremism is self-reinforcing. Angry people feed on each other’s anger, sensible people retreat into private life, and institutions are weakened in the tussle. This is already beginning to happen. Political activists are increasingly willing to bully their way to power. MPs—particularly moderate ones—report an upsurge in threats and smears. Intimidation is becoming routine on university campuses. On March 5th a group of masked protesters invaded and disrupted a talk at King’s College, London, put on by the college libertarian society.

The cycle of extremism could get worse very quickly. Imagine that Mr Corbyn wins the 2022 election—the most likely outcome—and starts putting into practice his policy of encouraging the democracy of the street as well as the debating chamber. The Conservative Party might well respond to this by embracing British nationalism and unleashing its own street warriors. An epidemic of strikes and demonstrations could have the British public crying for a blond beast to restore order.

Britain has weak formal defences against authoritarian populism. It is one of the few countries, along with New Zealand and Israel, that doesn’t have a codified constitution to protect basic rights. Since Britain joined the European Economic Community in 1973, European law has filled that void. But, as Vernon Bogdanor of King’s College points out in a new pamphlet, Brexit will remove those protections. Britain is the only advanced country that is weakening rather than strengthening constraints on legislative power (Israel, for example, is at work on a codified constitution). It is doing so just as illiberal populism is on the rise.

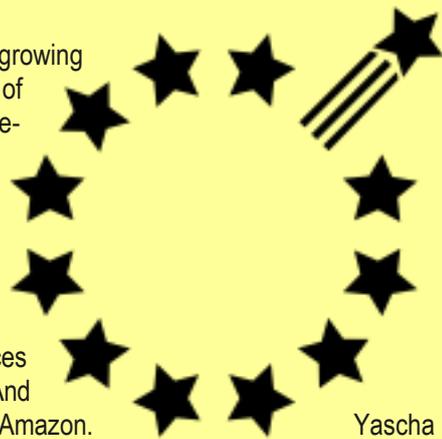
At the same time Britain is vulnerable to global shocks. It has an open economy with a huge financial-services industry, a flexible labour market that acts as a magnet to foreign workers, and a capital city that houses some of the world’s richest people. This economy is about to be subjected to one big shock, in the form of Brexit, and may well receive a second, in the form of Prime Minister Corbyn. All respectable forecasters agree that leaving the EU will reduce the rate of economic growth at least in the short term. The question is by how much. The combination of Brexit and a far-left Labour government could lead to a flight of capital, as investors seek safer havens and more predictable political regimes.

Fasten your seat belts

The biggest threat to British institutions, however, comes from a growing sense that democracy has let people down. Stephen Holmes of New York University points out that liberal democracy is a “time-tested system for managing political disappointment”—once you’ve lost patience with the existing elite you can vote them out. But disappointment is surging, at a time when democracy’s ability to manage disappointment is declining. Young people have been encouraged by policymakers to borrow to go to university, and schooled by internet firms that satisfaction is only a click away. But stagnant wages and rising house prices mean that even graduates can’t live as well as their parents. And democracy, by its nature, cannot offer the instant satisfaction of Amazon.

Mouk of Harvard points to disturbing polls. The proportion of Britons who support a “strongman leader” has increased from 25% in 1999 to 50%. The under-25s are much more critical of democracy than people of the same age were two decades ago.

It is too early to head for the exits. Mr Corbyn’s bark may be worse than his bite. Brexit may be manageable. And Britain’s informal defences against extremism may prove strong. Only this week Jacob Rees-Mogg, one of the fiercest Brexiteers, gave a brilliant defence of free speech in Parliament. But anyone who doesn’t know where the exits are is a fool.



Yascha

support a

Watch: New Sensor Will Detect Drone Pilots

Source: <https://i-hls.com/archives/81887>



CBRNE-TERRORISM NEWSLETTER – March 2018

Mar 12 – A new sensor called RF-300 was released by Dedrone that automatically locates drones and their pilots.

The current ubiquity of drones makes for a very hard to control environment and airspace.

The new RF-300 adds situational awareness for organizations to determine the nature and severity of threats from unauthorized drones.

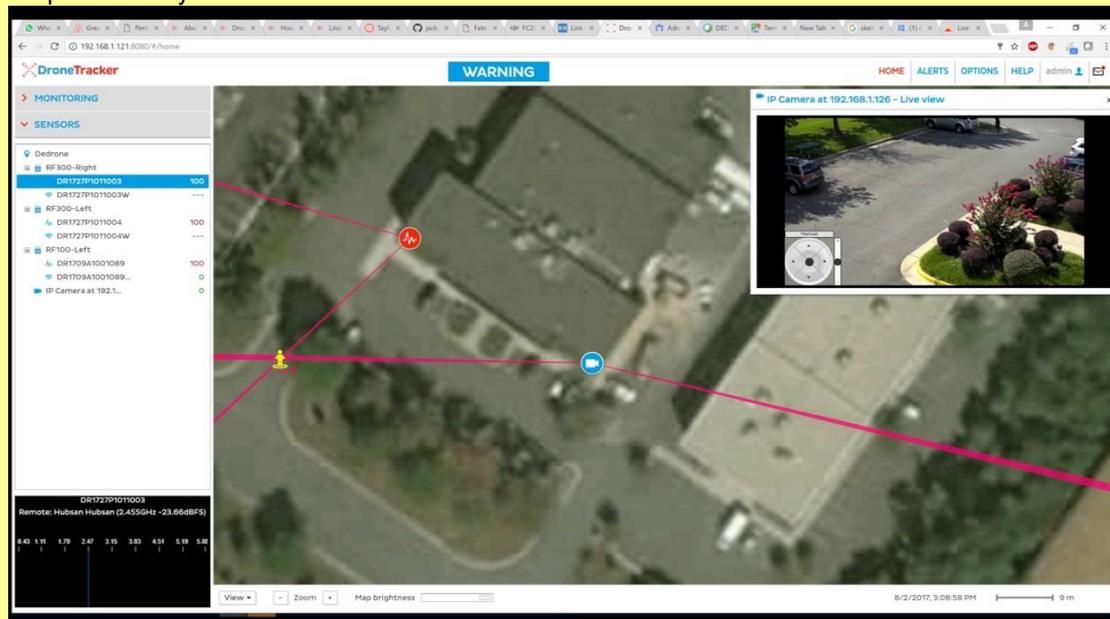


The ultimate protection a facility can take against drone threats is to stop the pilot before they can cause any harm, and hold them accountable for damages. The RF-300 provides this opportunity to enable law enforcement and site security leaders to locate and take action against trespassing pilots.

The RF-300 automatically tracks a drone's flightpath, providing advance opportunity to protect sensitive infrastructure and deploy security measures.

It can pinpoint the location of a drone pilot, enabling security personnel to either alert law enforcement of an illegal intrusion or confront the pilot at their launch site.

The new sensor can also connect to DroneTracker, which combines multiple sensors and countermeasures, including RF, cameras, and microphones, for complete airspace security.



Dedrone's RF-300 builds on the capabilities of the widely-deployed RF-100 sensor. Together, both sensors provide robust airspace security. The RF-100 is designed to diagnose the number of drones in protected airspace, while the RF-300 collects forensic evidence to take recourse against malicious pilots and prevent them from disrupting a protected site.

According to UASvision.com, **the RF-300 is already in action. The technology was recently deployed the technology at a global economic meeting in Davos, Switzerland**, which was attended by over 3,000 people, with events headlined by world's most compelling politicians, scientists, and leaders. The police of the Canton of Graubünden were responsible for the security of their attendees, and with Dedrone, were able to monitor their airspace in real time and, if necessary, intervene and stop a drone threat at an early stage.



Qatar plans to make **FIFA 2022** World Cup the most secure sporting event ever

Source: <https://dohanews.co/qatar-plans-to-make-fifa-2022-world-cup-the-most-secure-sporting-event-ever/>



Mar 08 – By some estimates, the 2022 FIFA World Cup in Qatar is going to cost the tiny Gulf nation approximately US \$220 billion. This is about 60 times the \$3.5 billion that South Africa spent on the 2010 edition. The 2014 World Cup in Brazil roughly cost \$11.63 billion.

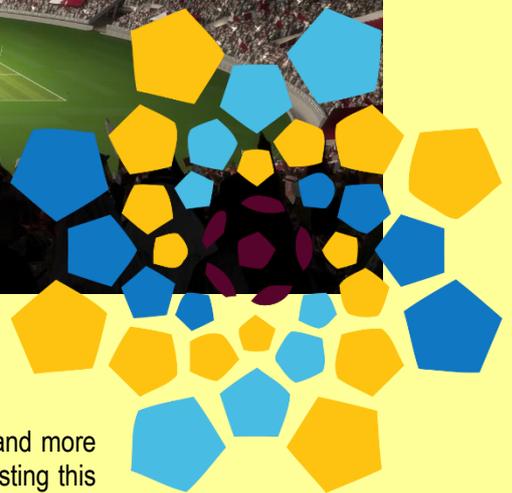
There's a lot at stake, which is continually pushing Qatar to add more and more muscle to its security measures. The eruption of opposition to Qatar hosting this great event ever since it won the bid in December, 2010, is also a concern, prompting the country to form alliances to ensure safe passage of the tournament.

Since this would be the first-of-its-kind experience for Qatar, it has formed association with various security agencies to derive the necessary knowledge and expertise, such as the International Police Organisation (Interpol) and the International Centre for Sport Security (ICSS). The aim

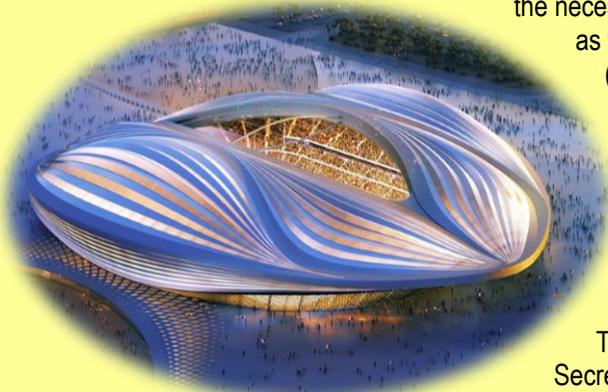
of these associations is to understand the security and safety implications, as well as sharing the record of possible threats so that proactive measures can be installed to tackle them.

The latest alliance is with the North Atlantic Treaty Organization (NATO).

The Emir of Qatar, HH Sheikh Tamim bin Hamad al Thani, and the Secretary-General of NATO, Jens Stoltenberg, on Wednesday signed the agreement on military and security cooperation and also discussed various challenges facing the region and the world as a whole, along with the promotion of international peace and security. This will play a major



qatar 2022



role in achieving Qatar's objective of ensuring regional peace and security, which is critical to the success of the FIFA World Cup 2022.

Qatar's objective of beefing up security also has a historical context to it, with the threat of terror being almost as critical as the actual attacks themselves.

EDITOR'S COMMENTS: (1) US \$220 billion just to see rich footballers hit a ball? Very sorry... considering what could have been done with all that money – i.e. in Syria or Somalia or Yemen; (2) I hope that CBRNe defense has been included into Qataris plans and that the health/hospital sector will be ready to cope with mass contaminated casualties – and I mean all hospitals in Doha (at least).



Expat Security Considerations for Travelers to the Middle East

By Andreas Karki

Source: <http://at-riskinternational.com/news/expat-security-considerations-for-travelers-to-the-middle-east/>

Feb 08 – Many travelers do not prepare adequately for upcoming business or personal trips to a new or even well-known country. Often, frequent travelers feel they are experienced enough to handle situations as they arrive, however with an increase in global terrorist threats and cyber risks, it is more important than ever to be prepared. Political instability, terrorist attacks and regional conflicts can change the security situation without notice. Enhancing your awareness of the security situation is a good first step. One way to do this is by using technology combined with traditional security measures. Technology, though useful and important, relies on the individual using it along with system security, location of technology use, etc. This includes everything from cell phones to tracking devices since they rely on how well the communication infrastructure is within the country or region to which it is being used.

AT RISK

Core challenge

One of the elements which makes modern Western countries examples of technological advancement is the widespread accessibility to common technological tools, means of communication and infrastructure. Expecting the same convenience in the Middle East is a dangerous fallacy among Western travelers and expats which leads to exposure to higher levels of risk once they are in the region.

For example, consider this scenario. It is common protocol for business professionals to report back to the regional office or to headquarters each step in their journey once on business in the Middle East. It is also common practice for security advisors to equip business professionals with tracking devices for online monitoring. What often goes unexpected is that there are city-wide and region-wide connection blind spots in most of the countries in the Middle East. Therefore, reporting or tracking is nearly impossible in those areas unless it is done with a satellite phone or similar technology that does not rely on local connection providers. Even in this case, however, the satellite phone or similar technology may not work. I have even experienced significant data inaccuracies when tracking devices or phones are reliant upon WIFI networks. In fact, analysts have observed an individual's reported location jump from one country to the next while the traveler remains stationary at their hotel.

Additionally, despite the widely advertised low rates of petty theft in major cities of the Middle East, it is more common in uninhabited or uncivilized areas that phone thefts occur. Westerners are likely unaware of the practices they routinely follow that may draw attention to the technology they carry. Bear in mind, many Western countries receive the newest technologies earlier and perhaps cheaper than some economies. Carrying the newest model smartphone may increase targeting in these areas which have limitations to technology access.

It's equally important to consider that most recently blockages of certain internet services in the Middle East region were announced making it even more difficult to keep in touch with



the corporate office or the security point of contact in case of a critical situation. Applications that you may traditionally anticipate will be available for check-in with family or the office will not function. Many free applications have been blocked and even some paid services will not function. To date, I am unaware of business communication applications such as Citrix, that have been blocked, however, certain applications such as Skype for Business have been impacted in the region.

Prevention

There are several steps to mitigate the above risks:

1. Conduct research and rely upon the tools available to business travelers to keep the informed of the security and safety situation in the region. Reliance upon information that does not come from regional sources may be inaccurate or lack essential detail, so travelers should engage with trusted regional advisors when necessary.
2. Transportation should always take place through large, well-developed, safe areas and cities under government control in each of the countries; even if it means traversing a longer route. No risky shortcuts should be taken; being on-time should not have higher priority than being safe and secure.
3. Tracking/reporting tools should be based on satellite or similar technology tools and trip updates should be sent frequently via the device so that there is always a footprint of the traveler's last location. The ability to monitor and connect are key elements to situational control.
4. An individual should always keep belongings safe and secure looking after their most valuable items whether they are in the desert or in a hotel. Even in considerably safe cities in the Middle East, no security measures should be taken for granted, including low rates of petty theft and workplace violence or strong presence of law enforcement and government forces.
5. Situational awareness should be maintained at the highest level possible. For many Westerners this does not come naturally, so additional efforts will be necessary to stay aware. Business professionals should study the social, cultural, religious and ethnic composition of countries of activity; it may seem superfluous, but only until a critical situation occurs. Awareness and prevention is always cheaper and easier than situational problem solving and consequent restoration.
6. Travel plans should be communicated to others, especially if changes occur to trip itineraries.
7. It is always important to participate in travel and situational awareness training prior to departure to the Middle East or any foreign county.

With the above in mind, there is a general rule to stick to when on travel in the Middle East: **a business professional should not expect to be met with the same set of values and behavioral norms as in the home country; rather, he/she should blend into the environment of activity as much as possible.**

As in most cases, maintaining a low profile is essential to avoid possible risk exposure. Acting in an intelligent, socially aware way is essential to successful crisis resolution, even in the risk exposed situation.

Andreas Karki is based in Dubai, United Arab Emirates and has oversight of AT-RISK International's consulting, protection and operational security matters within the region. He has more than 15 years of experience in the private security sector working on large, multi-cultural assignments in Scandinavia, Europe and the United Arab Emirates.



EU Common security and defence policy

Source: [http://www.europarl.europa.eu/RegData/etudes/fiches_techniques/2017/N53899/04A_FT\(2017\)N53899_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/fiches_techniques/2017/N53899/04A_FT(2017)N53899_EN.pdf)

Feb 01 – The common security and defence policy (CSDP) sets the framework for EU political and military structures, and military and civilian missions and operations abroad. The 2016 EU Global Strategy lays out the strategy for the CSDP, while the Lisbon Treaty clarifies the institutional aspects and strengthens the role of the European Parliament. The



CSDP has recently undergone major strategic and operational changes to meet security challenges and popular demand for increased EU responses.

EDITOR'S COMMENT: EU Common security and defence policy – Best joke ever! LOL! Two Greek border army offices are kept in Turkish prison (2018); Northern part of Cyprus under Turkish occupation since 1974. Just to name a few examples of EU solidarity.

If this is the apocalypse, I want my money back

By Rob Crilly

Source: <https://edition.cnn.com/2018/03/16/opinions/better-politicians-opinion-intl/index.html>

Mar 16 – If this is the end of the world, then one question is really bugging me: [who the hell will Gary Oldman play in the movie version?](#)

Anyone who saw his Oscar-winning performance as Winston Churchill in "Darkest Hour" will have been struck by his ability to conjure drama, pace and a deep sense of foreboding from what was essentially a political procedural with an ending known to the entire world.

He got to play a big figure in a big moment as politicians sweated over big decisions that would change the course of history, starting with the evacuation of Dunkirk.

As the UK rallies its allies (or what remains of them) to take a stand against [Moscow's provocation in the attempted murder](#) of a former Russian double agent and his daughter on British soil, we are once again at a pivotal moment.

Is it just me, or does it all feel a bit prosaic?

[Take Gavin Williamson](#), the man who today holds the post of UK Secretary of Defence.

That job was once held by Churchill himself, but Williamson's rhetoric falls rather short of the great man as well as the matter in hand.

This is probably the biggest moment of his political career, if not of his life. But this is what he said when asked whether Britain would consider a military response: "Frankly, Russia should go away, it should shut up..."

Of course the yah-boo nature of British political debate is often compared with the school playground, but this is going a bit far. What next? "Russia smells"?

He followed up by saying of the possibility of a new cold war: "Relations ain't good are they?" This may work fine for man-of-the-people authenticity, but hardly marks him out as a statesman.

Oldman would be wasting his talents.

But it is unfair to single out Mr Williamson. The whole thing lacks an appropriate level of portent, gravitas and, yes, drama. Remember the race to war in Iraq with the international diplomacy, weapons inspectors and United Nations security resolutions?

Theresa May, the British prime minister, is struggling to even manage dignity. Her visit to Salisbury -- where Sergei Skripal and his daughter Yulia were found slumped on a bench -- was notable in part for the fact that she "fist bumped" a member of the public.

True, even Churchill may have struggled with maintaining prime ministerial levels of decorum while observing a park bench in Salisbury. Which is probably why he never would have done any such thing, much less extend his clenched hand to touch knuckles in a form of greeting.

Even without Churchill, the march to war in Iraq gripped the world. The stakes were that high.

A British government weapons expert took his own life after telling the BBC that a government dossier alleging that Saddam Hussein had weapons of mass destruction -- and could launch attacks within 45 minutes -- was "sexed up."

So important was it to Tony Blair's government that his spin doctor Alastair Campbell was put in charge of editing the dossier, rather than the spies who had collected the evidence.

Colin Powell upped the ante with his slide show of Iraq's transgressions presented at the United Nations in New York. There were code names for sources -- remember "Curveball," whose moniker seems even more apt today -- resolutions, vetoes threatened and trans-Atlantic summits.

The sense of theater was absolute. Now imagine what it would have



been like if the evidence had actually been true. Contrast with the situation today. The unfolding drama offers such little box office appeal that the reality TV-star-turned-president Donald Trump can't even be bothered. Sure, he has some Russia baggage, but in other circumstances he would have been dying for a scene-stealing cameo with a ready-made epithet.

Instead, he had to be dragged -- like a sulking schoolboy -- to add his signature to a joint letter of condemnation on Thursday, fully three days after the UK revealed a chemical weapons attack had been launched on its soil.

Maybe it seems flippant to point out that this time around we are stuck with a collective mediocrity, that threats and deadlines are relayed in street slang by barely articulate ministers or with all the pomp and circumstance of Twitter.

Perhaps it is missing the point when two people lie critically ill in hospital to bemoan the style in which the diplomatic crisis is being conducted.

But when the consequences are so great, when Russia's provocations risk so much and its armies -- electronic and real -- are already contributing to the chaos in the Middle East and America's wretched political stasis, don't we deserve a breed of politician who can rise to the occasion with a display of dexterity in word and deed that inspires faith and hope?

Instead we are left with politicians whose shtick is based on being the man on the street or the woman next door. And a terrible, sinking sense that things are rapidly going to get much, much worse before anyone quite realizes how it happened.

Rob Crilly is a British journalist living in New York. He was The Telegraph's Afghanistan and Pakistan correspondent and was previously the East Africa correspondent for The Times of London. The opinions in this article are those of the author.

Survivor: Sex Gangs Motivated by Religious Extremism

Source: <https://clarionproject.org/sex-gangs-motivated-by-religious-extremism-survivor/>

Mar 20 – A survivor of the [Rotherham grooming gang](#) in the UK speaks out about the religious extremism that motivated her abusers. One of her main points was that grooming gangs are not the same as pedophile rings. Rather they are more similar to terrorist networks.



The following is part of her first-hand account (you can read the entire text by [clicking here](#)):

They made it clear that because I was a non-Muslim, and not a virgin, and because I didn't dress "modestly", that they believed I deserved to be "punished" ...

Like terrorists, they firmly believe that the crimes they

carry out are justified by their religious beliefs ...

Experts say that grooming gangs are not the same as pedophile rings. It's something that central Government really needs to understand in order to prevent more grooming gang crime in the future.

In November 2017, the Swedish government held a meeting where they stated that: "Sexual violence is being used as a tactic of terrorism", and as such, it was recognized as a threat to Sweden's national security.

Religious indoctrination is a big part of the process of getting young men involved in grooming gang crime. Religious ideas about purity, virginity, modesty and obedience are taken to the extreme until horrific abuse becomes the norm. It was taught to me as a concept of "othering" ...

I experienced horrific, religiously sanctioned sexual violence and torture – so I definitely believe that we need to be aware of religious extremism as something potentially harmful, so that we can protect people from it.

The link between terrorism and rape undertaken by Islamist gangs was not being ignored. They called for counter-extremism education. This sounds like a balanced and intelligent governmental response to me.



I witnessed the ways young men are groomed to become perpetrators by older grooming gang members. It's very similar to the tactics used in grooming for terrorism, with love-bombing, emotive language ("brother", "cuz", "blud"), and promises of wealth and fame, then humiliation, controlling with guilt and shame, training with weapons, and instilling hate and fear of outsiders.

Always, at the same time, they continue to convince these young men that they must find girls to be gang-raped too.

Grooming gang crime is upheld by religious extremism. Like Sweden, we must officially recognize this, and work to curb extremist preaching, teach religious counter-narratives, give gendered extremism education and deliver quality relationships education ...

If anything, rising anti-Muslim hate will probably make groomers stronger in their convictions, and drive ordinary young Muslim men towards fundamentalism, grooming gangs and terrorism. The camaraderie, protection, money, and kudos that these groups offer makes them a strong pull for anyone. Worryingly, several young men I have spoken to joke that being a gangster and going to jail are their "life goals" ...

Most grooming gang survivors I know absolutely condemn anti-Islamic hate, and we're uncomfortable with English Defence League protests. We certainly don't want random attacks on "all Muslims". You can't cure harm with more harm.

Islamist Infiltration of American Universities

By Ryan Mauro

Source: <https://clarionproject.org/islamists-infiltration-american-universities/>



Mar 19 – In 1988, an FBI source inside the [Muslim Brotherhood](#) revealed that the Islamist group's proxies in America had a six-phase plan to "institute the Islamic Revolution in the United States." [1] Among these front groups was The International Institute of Islamic Thought (IIIT), a think tank committed to the "Islamization of knowledge." [2] This ideology, as Professor Vali Nasr writes, entails the subordination of scientific inquiry to "the mere implementation of the assorted teachings of the Shari'a." [3]

Over the last three decades, IIIT's part in the Brotherhood's plan has met remarkable success. The institute has made itself an indispensable resource for Islamic studies scholars: It has provided funding for over 70 active researchers based at institutions across America (see appendix); it has spent millions of dollars on endowing chairs in Islamic studies; [4] and it has publicized the research of hundreds of like-minded academics at its Summer Institute for Scholars. [5]

IIIT's activities are integral to the Brotherhood's broader strategy of inciting an international Islamic revolution. As an official IIIT handbook notes:



At a time when we are forced to fight and defend ourselves on political, economic and military fronts ... (these efforts) can be accomplished by developing (the Ummah's, that is, the Muslim community's) ideological power and the power of the "islamization of knowledge (sic)" to effectively harness its full potential.[6]

In other words, the long-term success of the Islamists' revolution is dependent not only on success on the battlefield and at the ballot, but also on the cooptation of education in order to foment popular sympathy for the Brotherhood's objectives.

While IIIT's actions are ostensibly nonviolent, it has not hesitated to cultivate ties to international terrorists. In 2002, an anti-terrorism taskforce raided the IIIT's office. Based on the evidence obtained in this investigation, U.S. Customs Service Special Agent David Kane said in a sworn affidavit that IIIT co-founder and former vice president for research, Jamal Barzinji, was "not only closely affiliated with PIJ [Palestinian Islamic Jihad] . . . but also with Hamas." [7]

Furthermore, IIIT provided donations to the front organization of convicted Palestinian Islamic Jihad leader Sami al-Arian, formerly a professor at the University of South Florida. Al-Arian subsequently wrote a thank you note to IIIT, in which he emphasized that his organization and IIIT are essentially a single institution rooted in "an ideological and cultural concordance with mutual objectives." [8]

While IIIT is unapologetic about its links to violent Islamism, it is less forthright about the sources of its generous revenue. It is clear that the Brotherhood provided the start-up money for IIIT in 1988, when the aforementioned FBI memo notes that the organization had almost "unlimited funds" at its disposal. [9] That was 30 years ago. Nevertheless, today, IIIT's assets appear undiminished. Yet IIIT's website does not solicit donations; indeed, a search for "donate" on the site returns no relevant information.

This raises the question: Who is supporting IIIT today?

We cannot know for sure. However, we do know that IIIT has never shirked its loyalty to its parent organization, the Muslim Brotherhood. IIIT's website boasted—in a post that has now been removed—that two of its officials, Hisham Altalib and Abubaker Al-Shingieti, met with the leader of the Brotherhood and then-president of Egypt, Mohammed Morsi, in New York on September 24, 2012. Morsi "welcomed the participation of IIIT in the reform of higher education in Egypt." [10]

Furthermore, IIIT has cultivated relations with the wealthy Qatar Foundation, an arm of the Qatari government. [11] Qatar is one of the world's foremost state sponsors of international terrorism. Moreover, the state enforces its conception of the Shari'a at home. Its laws prescribe death for apostates and Muslims who commit adultery with non-Muslims; uphold the incarceration of men found guilty of homosexual relations; and sanction one of the world's most extensive and brutal human-trafficking systems. [12]

Qatar has sought to sanitize its illiberal reputation by constructing an "Education City" in the nation's capital, Doha. Education City is a network of campuses including Islamic colleges and proxy estates for six major U.S. universities: Texas A&M, Virginia Commonwealth, Cornell, Carnegie Mellon, Northwestern and Georgetown. The Qatar Foundation covers the expenses for these institutions to maintain their campuses in the country. It has invested over \$400 million in Education City. [13]

Qatar has portrayed Education City as a repression-free zone that respects Western norms in a kingdom that otherwise upholds the rule of Islamic law. [14] Yet Islamists with terrorist affiliations, including IIIT's former director, Dr. Louay Safi, teach there. [15] Furthermore Professor Jasser Auda—an active associate of IIIT with extensive ties to the Muslim Brotherhood—is also based there. [16]

Yet the six U.S. universities listed above have shown no inclination to repudiate their Qatari sponsors. These institutions legitimize the Qatari regime, sanctioning the presence of violent Islamists in Education City. Their actions are reminiscent of IIIT-funded scholars' complicity with their own sponsors' illiberal, "revolutionary" agenda.

For too long, American universities have allowed IIIT to shape the development of Islamic Studies in this country. They have ignored IIIT's anti-intellectualism expressed in its commitment to the "Islamization of knowledge," meaning the suppression of scholarship not sympathetic to Islamists. Left-wing activists who censor campus discussions about radical Islamism provide cover for IIIT's regressive ideology. They further its agenda to suffocate any scrutiny of Islamism and the broader Islamic tradition.



It is time to bring IIIT's action to light. It is time for parents, students and policy makers to demand that IIIT ends its role in the radicalization of Islamic Studies—a discipline that has long showed itself predisposed to anti-Western agendas.

►► Sources and a Selective list of professors with ties to IIIT are available at source's URL.

Ryan Mauro is the national security analyst and Shillman Fellow for the Clarion Project. This article was written with the assistance of Campus Watch, a project of the Middle East Forum.

Afghan Refugee Locked Up for Life After Brutally Raping, Murdering German Girl

Source: <https://sputniknews.com/europe/201803221062788562-afghan-refugee-germany-girl-rape-murder/>

Mar 22 – In October 2016, Hussein Khavari, a refugee of Afghan origin, savagely raped 19-year-old medical student Maria Ladenburger in the German city of Freiburg. While the girl was unconscious, he



threw her onto the bank of a river, where she drowned.

Khavari, who came to Germany as a refugee without any documents in 2015, was sentenced to life imprisonment after he admitted to murdering a 19-year-old girl in 2016, as well as lying about his real age in order to mitigate possible punishment. The court also ruled that because of the seriousness of the committed crime, he is unlikely to be eligible for parole even after 15 years, though life imprisonment in Germany stipulates such possibility after 15 years of incarceration.

According to investigators, in October 2016 Khavari, who claimed to be a 17-year-old refugee from Afghanistan, pushed Maria Ladenburger from her bicycle as she was returning home from a party late at night. Then he raped her and left her unconscious on the bank of a river; she subsequently slipped into the water and drowned.

"When he left her at the river bank, he knew that she was still alive and that she would drown," Judge Kathrin Schenk said, noting that according to a medical examination, the death of the girl in the water lasted for at least an hour.

Khavari was detained seven weeks after the murder — his dyed blonde hair, found at the scene of the crime, put the police on his trail. Investigators later discovered the Afghan man with colored hair on a surveillance camera in one of the city's trams.



The detainee claimed to be 17 years old at the time of the crime. However, experts concluded that the accused was at least 21 years old and thus punishment could not be mitigated due to age. Later, Khavari confessed to have murdered Maria Ladenburger but stated that he was drunk and in a state of temporary insanity.

During the investigation it emerged that several years ago, Hussein Khavari had already been sentenced to ten years in prison in Greece after he raped a young woman, who managed to survive, despite being severely injured. In September 2017, media also reported that Khavari told his cellmate in a pre-trial detention center that when he was 14, he raped a 12-year-old girl in Afghanistan.

Nineteen Years Ago: NATO's War of Aggression against Yugoslavia: Who are the War Criminals?

By Prof Michel Chossudovsky

Global Research, March 23, 2018

Source: <https://www.globalresearch.ca/nato-s-war-of-aggression-in-yugoslavia-who-are-the-war-criminals/2144>

Michel Chossudovsky is an award-winning author, Professor of Economics (emeritus) at the University of Ottawa, Founder and Director of the Centre for Research on Globalization (CRG), Montreal, Editor of Global Research. He has taught as visiting professor in Western Europe, Southeast Asia, the Pacific and Latin America. He has served as economic adviser to governments of developing countries and has acted as a consultant for several international organizations. He is the author of eleven books including The Globalization of Poverty and The New World Order (2003), America's "War on Terrorism" (2005), The Global Economic Crisis, The Great Depression of the Twenty-first Century (2009) (Editor), Towards a World War III Scenario: The Dangers of Nuclear War (2011), The Globalization of War, America's Long War against Humanity (2015). He is a contributor to the Encyclopaedia Britannica. His writings have been published in more than twenty languages. In 2014, he was awarded the Gold Medal for Merit of the Republic of Serbia for his writings on NATO's war of aggression against Yugoslavia.





Verification of chemical warfare agent exposure in human samples

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Toxichem Krimtech 2013;80(Special Issue):288

Source:

Abstract

Aim: This brief presentation provides an overview of methods that have been developed for the verification of human exposure to chemical warfare agents.

Methods: GC–MS detection of nerve agents (V- and G-type) has been carried out with respect to unreacted agents as well as enzyme-bound species and metabolites. Methods involving direct SPE from plasma, fluoride-induced release of protein-bound nerve agents in plasma and analysis of their metabolites in plasma and urine have been developed. Exposure to blistering agents, *i.e.*, sulfur mustard, has been verified by GC–MS detection of the unreacted agent in plasma and by LC– and GC–MS analysis of its metabolites in urine.

Results: After incorporation nerve agents quickly bind to proteins, *e.g.*, acetylcholinesterase, butyrylcholinesterase or serum albumin, and only small parts remain freely circulating for a few hours (G-type) or up to 2 days (V-type). Concurrently they are converted to *O*-alkylmethylphosphonic acids by phosphotriesterases and/or simply by aqueous hydrolysis. As a result, different biomarkers can be detected depending on the time passed between exposure and sampling. Unreacted V-type agents can be detected in plasma for 2 days, the *O*-alkyl methylphosphonic acids in plasma for about 2–4 days and in urine for up to 1 week. Fluoride-induced release of protein-bound nerve agents can be carried out until 3 weeks post exposure. Unmetabolized sulfur mustard may be detected between 8 hours to 8 weeks in plasma, while no time frame has been reported for its metabolites in urine.

Conclusion: A set of validated techniques detecting exposure to chemical warfare agents has been established. Further methods are needed to provide a clear picture of their biomarkers.

EDITOR'S COMMENT: A very thorough abstract on verification of CWAs in victims exposed to nerve agents.

North Korea Reportedly Sending Missile, Chemical Weapons Parts To Syria

Source: <https://www.npr.org/sections/thetwo-way/2018/02/28/589401924/north-korea-reportedly-sending-missile-chemical-weapons-parts-to-syria>

Feb 28 – North Korea has reportedly sent ballistic missile and chemical weapons components to Syria in violation of United Nations sanctions, according to a draft of a new report authored by U.N. experts that has been viewed by several news organizations.

According to the 200-page report, expected to go public in mid-March, U.N. investigators say the items include acid-resistant tiles, valves and thermometers, [according to The New York Times](#). The transfers reportedly date back as far as 2008.

The *Times* reports, "North Korean missile technicians have also been spotted working at known chemical weapons and missile facilities inside Syria, according to the report, which was written by a panel of experts who looked at North Korea's compliance with United Nations sanctions."

[The Associated Press](#) says the "investigations into Pyongyang's transfer of prohibited ballistic missile, conventional arms and dual use goods found more than 40 previously unreported shipments to Syria between 2012 and 2017."

"North Korea has a sordid history of supplying rogue states like Syria with weapons of mass destruction technology for cash," Andrew C. Weber, a former top Pentagon nonproliferation



official [told The Washington Post](#). "Given its large and growing arsenal of nuclear, chemical and biological weapons and missile delivery systems, this is extremely dangerous."

"According to an unidentified member state, the North's Ryonhap-2 Corporation was involved that year in a Syrian ballistic missile program, the 'maneuverable re-entry vehicle (MARV) Scud D (MD) project,' the report said.

"More recently, it said the August 2016 visit by a technical delegation from the Democratic People's Republic of Korea — the country's official name — 'involved the transfer to Syria of special resistance valves and thermometers known for use in chemical weapons programs.' "

As [NPR's Greg Myre](#) reported last week, the U.S. has also been tightening sanctions on North Korea, with the latest round aimed at blocking the regime from obtaining imports of oil and other prohibited products.

However, as Greg writes:

"More than 50 ships and shipping companies were cited by the Treasury Department for evading existing U.S. and international sanctions. While most of those named were based in North Korea, companies and ships from China, Singapore, Taiwan, Panama, Tanzania, the Marshall Islands and the Comoros were also included.

"The measures are part of the administration's 'maximum pressure campaign' on North Korea and are designed to put pressure on the country for its expanding nuclear weapons program."

In 2007 Syria, Iran and North Korea Tried to Load Chemical Weapons into a Missile. It Ended Badly.

By Sebastien Roblin

Source: <https://www.yahoo.com/news/2007-syria-iran-north-korea-030000257.html>

Mar 03 – In 2007 Syria, Iran and North Korea Tried to Load Chemical Weapons into a Missile. It Ended Badly.

On February 27, an [article in the New York Times](#) revealed that the United Nations had produced a two-hundred-page report detailing the transfer of components for the production of chemical weapons from North Korea to Syria. While it is uncertain whether the UN report will be released to the public, the *Times* details transactions after Syria supposedly destroyed its chemical-weapons facilities, including acid-resistant tiles in January 2017 (useful in chemical-weapon facilities), as well as special high-resistance valves and thermometers "known for use in chemical weapons" in August 2016.

Although these transfers do not amount to "definitive proof" because the components could theoretically have civilian applications, it is clear that Syria and North Korea resorted to extensive obfuscation through shell companies and ships registered in China or Malaysia to "circumvent sanctions."

Of course, any lingering doubts over whether Syria was faithfully adhering to its agreement to destroy its chemical-weapons stocks were

surely dispelled after Syrian warplanes [dropped munitions loaded with sarin gas](#) on the village of Khan Sheikhoun on April 4, 2017. Furthermore, 2018's [intensification of chlorine gas-attacks](#) shows that the Syrian government continues to practice chemical warfare against its civilians in rebel-held areas. However, chlorine gas has attracted [relatively little attention](#); it cannot be regulated because it is produced with common industrial chemicals, and though attacks typically harm dozens of people at a time, the number of deaths is typically "only" in the single digits.

Nonetheless, the *Times* article highlighted the key role North Korea has played in transferring chemical and other weapons to Syria, in exchange for badly needed cash or barter payments, a role dating back to the 1980s and '90s. However, this mutually beneficial relationship between pariah states has occasioned a curious number of hair-raising accidents—which may not in fact be accidental.

Blowing the Doors Off the Syrian Chemical-Warfare Program

At 4:30 in the morning on July 25, 2007, a fiery explosion tore through



a heavily guarded building a dozen miles southeast of Aleppo, Syria. The building was part of a complex known as al-Safir, one of five constructed by the Syrian government to produce and store chemical weapons. Al-Safir particular specialized in Sarin and VX, [extremely lethal nerve agents](#) that among other terrible effects disrupt the muscle responses necessary for breathing.

The shock of the blast was so great it blew off the facility's heavy metal doors. Choking clouds of gas flooded through the surrounding complex, which measured five miles by two miles.

Some accounts claim that as many as two hundred were wounded or killed in the accident. Local medical staff could not cope with the disaster and it became necessary to summon outside help to the classified facility.

Publicly, the Syrian government claimed that the facility had been a conventional arms depot, and that temperatures exceeding fifty degrees Celsius had caused munitions to cook off in a chain reaction. But that didn't square with the timing of the explosion during a cool desert night.

An article published by *Jane's* in September 2007 would sketch out a very different explanation, which is generally accepted today with slight variations: Syrian and Iranian engineers had been loading mustard gas, a chemical weapon which causes horrifying blistering on skin contact, into a Scud-C ballistic missile when a fueling pipe burst. The resulting combustion not only produced the deadly blast, but released stocks of sarin and VX nerve agents throughout the facility, worsening the death toll.

In some later variations on this story, the gas being loaded was also a nerve agent, and the missile was a longer-range Scud-D.

The report listed fifteen Syrian engineers among the dead, "dozens" of Iranians and three North Korean technicians. Indeed, North Korea had played a key role in supplying both Syria and Iran with chemical weapons and ballistic-missile technology with which to launch them at distant targets. The al-Safir facility had been constructed two years earlier with North Korean assistance.

North Korea produced its first ballistic missiles by [reverse-engineering](#) Scud missiles acquired from Egypt. It promptly developed an improved

longer-range missile called the Hwasong-6, or Scud-C. According to defense analyst Bruce Bechtol in his book [Defiant Failed State](#), in the early 1990s Damascus used money received from Saudi Arabia for its participation in the Gulf War to pay Pyongyang \$500 million to purchase 150 Hwasong-6s.

North Korea later developed an improved variant with a range of around five hundred miles, designated the Scud-D, and delivered some to Syria 2000. One of these Scud-Ds crashed on Turkish soil during a test in 2005; upon analysis, it was discovered these were being modified for even greater range and accuracy. Much of the exchange in technical expertise was facilitated by personnel from the Syrian Scientific Studies and Research Center.

More Explosions, More Deaths

Ballistic missiles and chemical weapons are intrinsically dangerous technologies, and it's entirely possible the disaster at al-Safir was simply an accident. The Assad government nonetheless investigated, and they reportedly concluded in private that sabotage had occurred. But by whom?

Bechtol and other commenters on the al-Safir accident typically make a connection to several other incidents that hint at ongoing efforts by Israel to sabotage Syrian and Iranian efforts to develop weapons of mass destruction.

For example, prominent Israeli journalist Ronen Bergman later wrote in his book [The Secret War with Iran](#) that a senior Israeli minister had suggestively described the al-Safir explosion as a "wonderful accident."

On September 6, 2007, less than two months after the explosion at al-Safir, ten Israeli F-15 jets fighters penetrated deep into Syrian airspace, escorted by F-16s and protected by a blanket of jamming and deceptive electronic-warfare countermeasures that disabled Syrian air defenses. As they approached a facility in the eastern province of Deir al-Zour, commandos waiting on the ground highlighted targets with laser designators. The warplanes released more than thirty thousand pounds of bombs, destroying a Syrian nuclear reactor under construction there with North Korean assistance, bought at a price estimated to be equivalent to



\$1–2 billion. Ten North Korean engineers were among the dead.

Other accidents and unlikely deaths had befall others associated with the transfer of military technology between Korea and Syria. Notably, on April 22, 2004, a titanic explosion registering as a 3.2 on the Richter scale ripped apart a train in Ryongchon, North Korea, devastating the town. Officially the blast was triggered by electrical wires interacting with a cargo of ammonium nitrate, a substance used as a fertilizer in rockets and explosives, though curiously North Korean leader Kim Jong-il had passed through the station only a few hours earlier. Among the 161 dead were ten Syrian SSRC engineers.

Later in 2009, Syria would test launch another Scud D missile under the supervision of North Korean and Iranian Revolutionary Guard Corps technicians. However, the missile flew off course and killed twenty civilians; it is unclear if it was equipped with a conventional or chemical warhead.

Nonetheless, when these past incidents are considered alongside the recent UN reports, it becomes clear that the relationship between Pyongyang and Damascus is deeply rooted, and that the former will likely continue to transfer the means to produce deadly weapons to the latter in defiance of international sanctions and agreements.

Sébastien Roblin holds a master's degree in conflict resolution from Georgetown University and served as a university instructor for the Peace Corps in China. He has also worked in education, editing and refugee resettlement in France and the United States. He currently writes on security and military history for [War Is Boring](#).

Ex-CIA chief warns ISIS could send chemical weapon "recipe" to followers in U.S.

Source: <https://www.cbsnews.com/news/michael-morell-warns-isis-may-send-chemical-weapon-recipe-to-followers-in-us/>

Mar 02 – A new report warns that [ISIS followers in the Middle East may be plotting a chemical attack](#) on the U.S. Based on intercepted conversations, the report shows a desire by ISIS to use chlorine or other weapons of mass destruction on American soil. U.S. officials are working to disrupt the plan and a homeland security official said, "the bottom line is: the threat is real."

Former CIA deputy and acting director, Michael Morell, told "CBS This Morning" we should be taking this "seriously."

"ISIS has for some time said that they want to acquire weapons of mass destruction and to use them and they've actually been able to manufacture chemical weapons in Iraq and Syria and use them on the battlefield," Morell said.

Despite intelligence indicating ISIS is planning to bring in the weapons, Morell is more concerned about what their followers in the U.S. could do.

"I think we need to be more worried about them making it here. This stuff is difficult to transport, it's difficult to get it by customs and immigration. I think it's more likely that they send the recipe here to their followers and they make it here," he said.

While it's difficult to spread widely, Morell said making it would be "easy to do" with the right materials and a degree in chemistry.

"Most people think you need to spread it with explosives but that actually deteriorates some of the chemicals. So it is difficult to disseminate but again, if you know what you're doing, and these guys do, then it can do real damage."



Who is Sergei Skripal, the ex-spy exposed to 'unknown substance'?

Source: <https://www.theguardian.com/uk-news/2018/mar/05/who-is-sergei-skripal-ex-spy-exposed-substance-salisbury-hospital>

Mar 05 – A former Russian army colonel convicted of passing the identities of Moscow agents working undercover in Europe to MI6 in 2006, [Sergei Skripal](#) arrived in the UK as part of a [high-profile spy swap](#) in 2010.

Skripal was sentenced to 13 years in jail for spying for Britain in Russia in August 2006 after being



convicted of “high treason in the form of espionage”.

Russian prosecutors said he had been paid \$100,000 by MI6 for information, which he had been supplying since the 1990s when he was a serving officer. The FSB, Russia’s security agency, said the information passed to MI6 by Skripal constituted state secrets.

Skripal served in Russia’s GRU military intelligence until 1999, reaching the rank of colonel. He then worked at the Russian foreign ministry’s office in Moscow until 2003, when he went into business.

“You outplayed me,” Skripal reportedly told FSB agents after his arrest. An FSB spokesperson compared Skripal to Colonel Oleg Penkovsky, who was executed by the Soviet Union in 1963 for supplying the United States with information during the Cuban missile crisis.

In July 2010, the then Russian president, Dmitry Medvedev, pardoned Skripal and the former colonel was one of [four spies](#) exchanged for 10 deep cover “sleeper” agents planted in the US by Moscow.

He and another Russian were flown to the UK after the exchange and were debriefed by MI5 and MI6 officers. At the time, Skripal was considered the more important of the two spies brought to Britain. It was assumed that Skripal had since been given a new identity, a home and a pension.

The two Russians who went to the US were Alexander Zaporozhsky, a KGB colonel whose information unmasked traitors inside the CIA and FBI, and Gennady Vasilenko, a former KGB officer.

Among the 10 Russian spies deported from the US was [Anna Chapman](#), who was arrested at a New York police department precinct after turning in a fake passport an undercover FBI agent had given to her. The daughter of a Russian diplomat, she became the most recognisable of the 10 agents after her former husband sold photographs to the press showcasing her social life and travels.



Before settling in the US, she had lived in the UK for seven years after marrying an Englishman. Prosecutors say Chapman used a specially configured laptop computer to transmit messages to an unnamed Russian official.

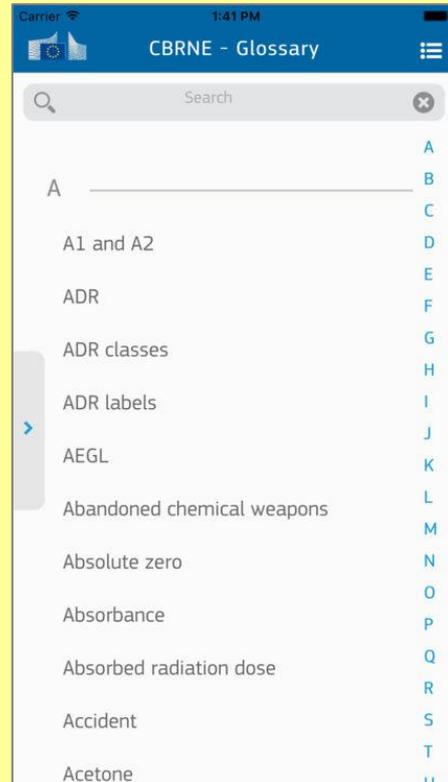
EU CBRNE Glossary

Source: <https://appadvice.com/app/eu-cbrne-glossary/1123578719>

The EU CBRNE Glossary is the EU official glossary on chemical, biological, radiological, nuclear and explosive risks (CBRNE).

It is an information tool for practitioners information tool for practitioners in CBRNE management and response (law enforcement, fire brigades, medical emergency, civil protection, border control, etc.) developed by the European Commission in support of the EU CBRN Action Plan. The aim is to achieve a common understanding of terms related to CBRNE areas and facilitate the work of all intervenients in CBRNE-related activities not only within the European Union, but also outside its borders.

The EU CBRNE Glossary includes approximately 820 entries, prepared and reviewed by a panel of EU member states experts in the different areas. It is available in 24 languages and is also accessible via the online EU portal (<http://opencbrne.jrc.ec.europa.eu/main>).



Source: http://www.daten.behoerenspiegel.eu/esdu_28.pdf



UAE fully prepared in disaster management medicine

Source: <http://gulfnews.com/news/uae/society/uae-fully-prepared-in-disaster-management-medicine-1.1971136>



Jan 2017 – The UAE is fully prepared for any disasters and emergency with a full-fledged national committee for disaster management that has representation of all stakeholders such as health-care facilities, health authorities of Abu Dhabi, Dubai and the Ministry of Health and Prevention, ambulance services of all emirates and the police, said Dr Saleh Saif Fares, consultant emergency medicine specialist and head of Emirates Society for Emergency Medicine. He was speaking on the sidelines of an emergency medicine seminar and workshop at Arab Health 2017.

The conference looked at the preparedness of the country in terms of emergency handling in case of accidents and trauma care at hospitals and also in cases of major attacks termed Chemical, Biological, Radiological, Nuclear and other explosives, dubbed as responsiveness to CBRNE.

Dr Tammam Aloudat, deputy medical director of Medecins Sans Frontieres, told Gulf News: “While the UAE is well equipped to deal with emergency services in case of hospitals in times of major accidents, cardio-vascular diseases or stroke patients, what we are looking at is disaster medicine in times of conflict, natural disaster, outbreak of infection, or in times of mass displacement. This subject is relevant for the UAE as it is a big donor to these causes. By training medical personnel, it can, apart from financial help, also send in trained people to help. Most of the aid workers come from the West, but the need of the hour in conflict zones is for Arabic-speaking aid workers who have a cultural understanding and have the ability to communicate with victims. The UAE is training its people for emergency preparedness and sending aid workers to conflict zones will also help their personnel to be prepared to handle any such situation anytime. Of course, no one wants such a situation but it is better to be prepared.”

A new blood donation app introduced by the Dubai Health Authority is designed to register potential donors who can contribute blood in times of emergency and national disasters and will be integrated into the disaster management system.

It's time to think of hyperbaric oxygen chambers

Dr Ian Miller, senior medical specialist, department of Intensive Care and Hyperbaric Medicine at Alfred Hospital, Melbourne, talked about how high-pressured oxygen has the power to heal trauma and burn patients and also save diabetic patients from impending amputations and heal chemotherapy patients of the excesses of radiation.

The oxygen therapy might also be the solution to tackle antibiotic-resistant bacteria that has become the new headache for health-care professionals all over the world.

“The hyperbaric chamber is a room where the atmospheric pressure is raised to the level where 100 per cent pure oxygen is pumped into the room. This triggers complete healing of scarred, necrotic tissue, kills infection and repairs tissue. It is particularly helpful in saving gangrene-infected foot, save burnt tissue from necrosis, raise the immunity of the body to fight off severe infections and trigger complete healing. I would say that it might be the next stop after the drug-resistant antibiotic as no bacteria is able to last in excessive oxygen which strengthens the natural immune system of the body,” said Dr Miller.

He cited the case of a 67-year-old woman in his care, suffering post-radiation side-effects who was on walking sticks. “The session in the hyperbaric chamber helped her so much that she was able to discard the walking sticks and actually learn ballroom dancing,” he recalled. “Patients with life-threatening infections, especially diabetics with gangrene, have a 25 per cent mortality rate. With hyperbaric treatment, we are able to reduce the mortality rate by half,” he added.

Currently, barring a few independent hyperbaric chambers in the country, no hospitals have built-in chambers and Dr Miller felt if these chambers were designed in a manner where the patient could get intensive care with trained professional while receiving hyperbaric therapy, it could yield good results.

“The health-care system has a bias towards surgical and drug therapies but no one wants to look at non-surgical options. The cost of building a chamber within a hospital could be



negligible as it can be used for over 50 years for several sittings and in the end come to cost only \$2 per patient.”

EDITOR’S COMMENT: This article refers only to conventional disasters. CBRN preparedness is low and is mainly attributed to the military. The majority of hospitals are not prepared with the exception of the one supporting the under construction nuclear power plant. Defense companies selling their products provide training of their products; that is all. Citizens’ awareness is a dream. When they will realize that they live in a fragile part of the world and that they can easily return to the camel/tent era?

Taking the First Responder out of the Hot zone: A possibility that should be a necessity

By Marlène Meunier

Source: <https://www.cbrneportal.com/taking-the-first-responder-out-of-the-hot-zone-a-possibility-that-should-be-a-necessity/>

November 2017 – When a man-made or a natural CBRNe incident occurs, particular attention needs to be given to the response after the ‘bang’. Though response plans may differ from organization to country to affected infrastructure, the recommended approach is: triage of persons and decontamination, in order

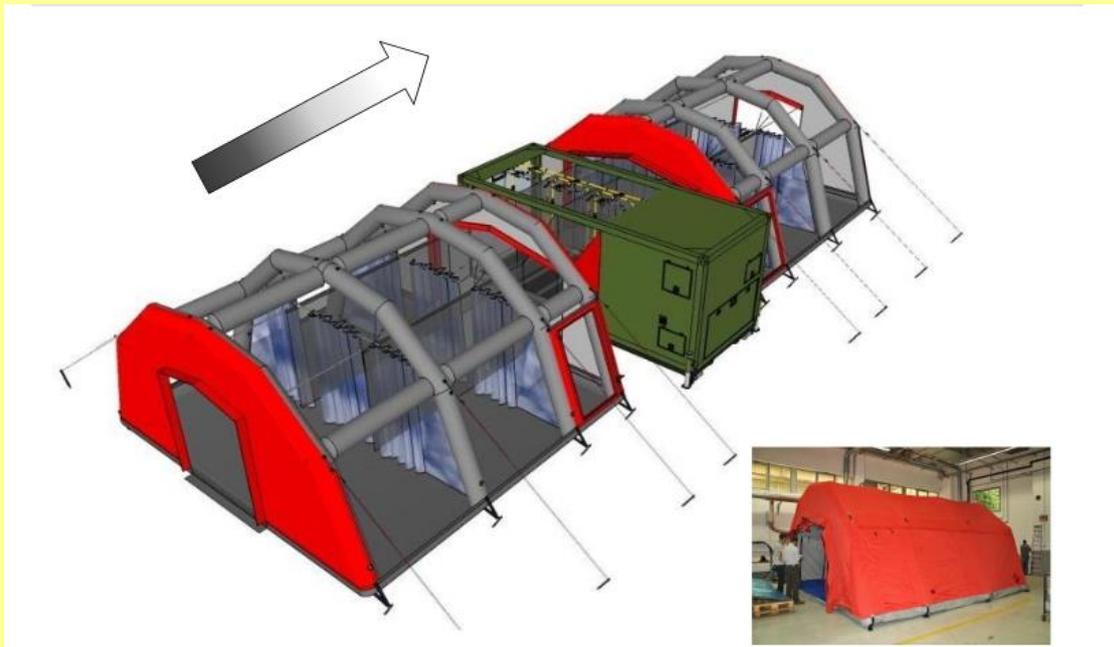


to limit the effects of the CBRNe incident. Personal decontamination generally stops the agent from further harming the contaminated person, whereas the decontamination of infrastructure and equipment allow to reestablish the use of equipment or infrastructure. Those taking care of decontamination are first responders, with support from available technologies. The risk of secondary contamination, and possibly death, is extremely high during this decontamination process since the first responder enters the hot zone, even when wearing protective equipment. The current state of the art technologies in decontamination do not include automated decontamination to the extent they should. Only minor adaptation of currently available robots and other developments to current technologies are needed to reduce the number of first responders needed for the process. Since we have the technological capabilities to remove the first responder from the danger zone the question begs: Why are we not investing to support this technological advancement?

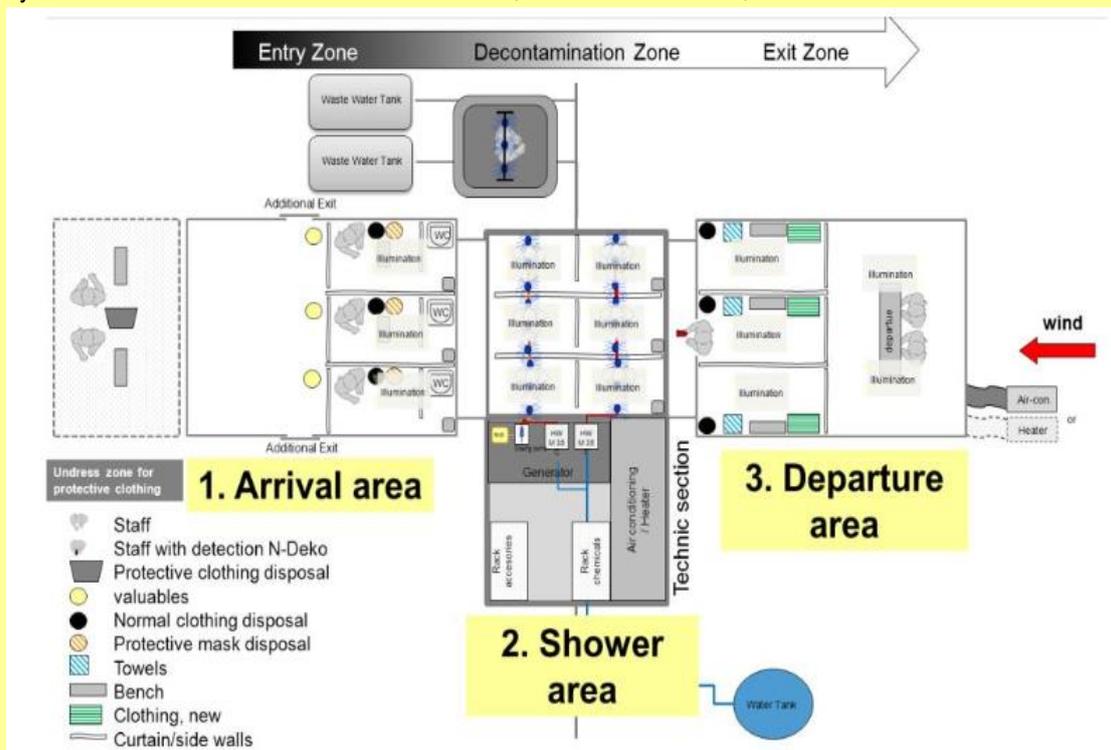
The current state of the art

As decontamination is a central element to CBRNe response, there has been a significant investment in knowledge resulting in state-of-the-art technology and mechanisms that have been developed to decontaminate as effectively as possible. The challenges in developing these technologies arise because only CBRNe not only comes in all shapes and sizes, but there are also important differences between material and skin decontamination. This means that there is no one technology (mechanical or chemical) that will decontaminate all CBRNe contaminated areas as well as people: a universal solution is difficult. Currently available technologies that respond to personal decontamination include: skin decontaminants (e.g. soap, enzyme preparations, RSDL, alledcont, etc.) and devices such as decontamination shower tents and trailers. Agents for surface decontamination (e.g. OWR’s GD-6 amongst others) have also been developed and devices (such as vacuum chambers, handheld agent fogging devices etc.) are available to both military and civil first responders to decontaminate materials from computers, tanks and sensitive equipment. Even though we cannot deny the efforts put into these developments, these solutions still require the first responder to enter the contaminated zone. Let us now turn to the state of the art of unmanned solutions in CBRNe response.



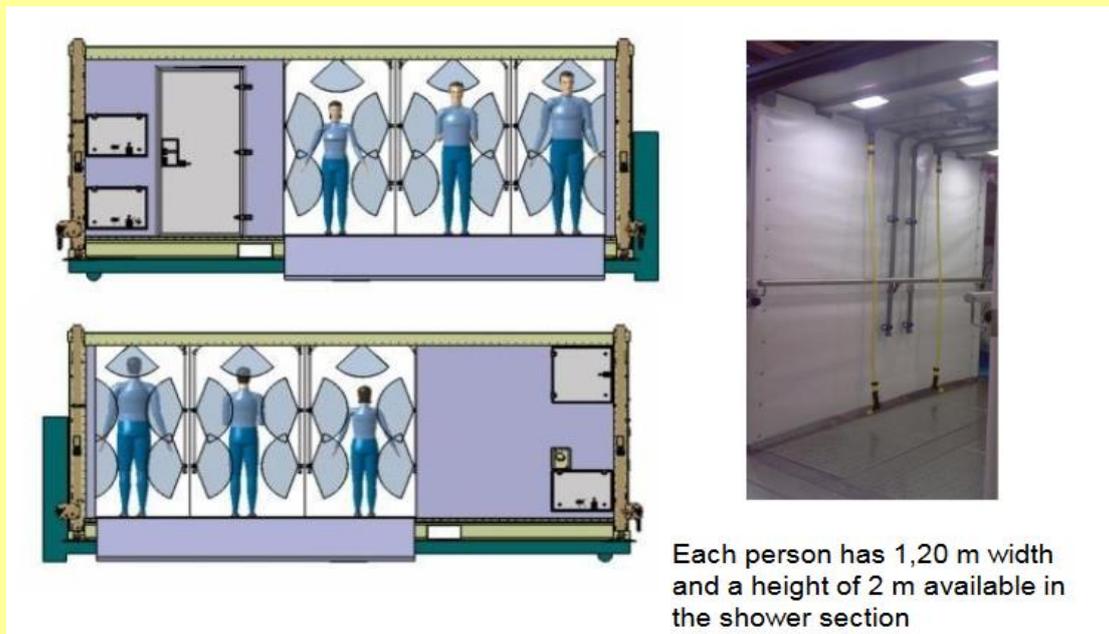


The only notable unmanned solution to decontamination is **Kärcher's automated DSAP shower tent**. The 240-C4T version with four tents is an automated decontamination solution as it includes a traffic light system for the victims to undress themselves, shower themselves, and redress without the need of



physical assistance from a first responder. Although the first responders are still very close to the contaminated area, the traffic light system is a small adaption made that allows first responders to work out of the danger zone. The most promising unmanned solutions to infrastructural decontamination, on the other hand, are UGVs (unmanned ground vehicles). The combination of CBRN agents and IEDs (improvised explosive devices), have encouraged the development of UGVs with counter-CBRN capabilities. These have been developed





based on already-existing robots specialized in C-IED and EOD (explosive ordnance disposal) tasks in order to allow for the removal of the first responder from hazard: a characteristic that is particularly relevant to the CBRN field. The current available capabilities of UGVs in response to CBRN threats are related to CBRN detection. This includes CBRN-sensors detectors, x-ray equipment and modules that can be mounted onto the chassis on the mounting points of robots in order to alert and report CBRN threats. The available modules do not include decontamination modules. UGVs and their modules are of particular interest, as the modular solution means a minor addition to the currently available technologies, whilst adding an entire decontamination of CBRN capability. Why can't other minor adaptations or more significant developments make unmanned decontamination a reality?

Developments we need to see

It is unquestionable that there are difficulties in decontamination, which makes the development of unmanned solutions to decontamination difficult, but these can and should be overcome. Firstly, the fact that there is no universal solution to decontamination, seems to imply the development of an infinite number of robots for each solution. Diakont's development of the underwater remote decontamination robot should be noted as one of the only remote robotic solution that has been developed to decontaminate "RN" specifically, but it is not the rule. The specificity is not necessary if we consider 1. the module-based approach of CBRN detection in UGVs mentioned above, and 2. the minor adjustments to already existing technologies (i.e. DSAP's traffic light system) are not as significant as they may seem. Most importantly, it is worth the investment if we can remove the first-responder from the hot zone. This investment would also not be huge if we can develop platform-independent solutions that could be mounted on UGVs that have already been in use by end-users for years.

Another more specific problem related to the use of UGVs in the decontamination of infrastructure, is the need to decontaminate the robot itself, as it is usually expensive technology. We have the capabilities to decontaminate sensitive equipment, so the technology is not lost to the agent. Furthermore, in any case, the robot would be contaminated in place of the first responder. The decontamination of the robot is already considered and has been addressed in UGV solutions to CBRN detection. Our argument does not aim at removing the first-responder all-together, as essential decision-making elements in CBRN response (e.g. injury assessment), would still be conducted by experts. It is true that the state-of-the-art of the cognitive capabilities of robots do not allow to remove the first-responder completely (yet), but the inclusion of automated elements can significantly reduce the number of first responders required for CBRN response, and therefore the probability of secondary contamination. For example, when decontaminating a CBRN agent contaminated



tank, if OWR's handheld fogging device (Fogbooster) was put onto a robotic arm controlled by two responders in a control room, the number of first responders involved in the decontamination procedure would drop from 9 to 2 in the control room and would save a significant amount of time.

Conclusion

Overall, we have the technology available – it just needs to be adapted. Adapting already existing technologies to CBRN decontamination saves time, material and most importantly people. Robots have been introduced to and accepted by almost all segments of society, particularly in security and defense. Although there are challenges that need to be addressed: it is essential to invest in expand these capabilities to unmanned CBRN decontamination. Why would we risk the lives of these first responders, when it is not required?

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Name Your Poison: Exotic Toxins Fell Kremlin Foes

Source: <https://www.rferl.org/a/russia-skripal-kremlin-foes-exotic-toxins/29083216.html>

Mar 06 – The sudden illness in Britain of a Russian man convicted of spying for London has drawn comparisons with another poisoning in the United Kingdom -- the assassination in 2006 of Russian former-spy-turned-Kremlin-critic Aleksandr Litvinenko, who was found by a British public enquiry to have been poisoned by Russian state agents.

Sergei Skripal, a 66-year-old former Russian Army colonel, and his 33-year old daughter Yulia Skripal, were critically ill at a Salisbury hospital on March 6 -- two days after they [collapsed unconscious](#) on a bench in Salisbury from what British authorities described as "suspected exposure to an unknown substance."

While radiation and toxicology experts worked on March 6 to determine the substance they were exposed to, Metropolitan Police assistant commissioner Mark Rowley told the BBC that authorities "have to be alive to the fact of state threats as illustrated by the Litvinenko case."

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

Skripal's hospitalization is the latest of numerous cases in which Kremlin opponents and critics have fallen ill from poisoning over the years, sometimes fatally, in circumstances that have raised suspicions of KGB-style assassinations.

Here is a closer look at various poisons thought to have been involved in prominent cases.

Fentanyl and Carfentanyl

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

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

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



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

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

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

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

Moscow's 2002 Theater Hostage Crisis

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

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

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

Gelsemium -- 'Heartbreak Grass'

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

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

Aleksandr Perepilichny

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

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

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

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

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

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

Polonium-210

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

Aleksandr Litvinenko

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

Aleksandr Litvinenko (1962-2006), was poisoned in a London sushi bar in November 2006 and an autopsy revealed traces of polonium-210 in his body. British experts said he probably was the first person ever to die of the acute radiation effects of polonium-210.



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



The inquiry, led by a retired British judge, Sir Robert Owen, also concluded that a former KGB agent and ex-Kremlin bodyguard, Andrei Lugovoi, carried out the assassination along with Dmitry Kovtun by placing polonium-210 in a teapot that was served to Litvinenko at a London restaurant.

Before he died, Litvinenko wrote a letter accusing Putin of ordering his death. He had earlier accused the FSB of staging apartment-building bombings and other false-flag attacks in Russia in a bid to bring Putin into power -- claims Russian authorities have denied.

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

Thallium

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

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

Nikolai Khokhlov

Nikolai Khokhlov was a Soviet KGB agent who defected to the United States in 1953 and testified about KGB operations. Khokhlov was treated for thallium poisoning in Frankfurt, Germany, in 1957 after a failed assassination attempt by the KGB -- possibly the first radiological attack by KGB agents.

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

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

Yury Shchekochikhin

A Russian investigative journalist and lawmaker, Yury Shchekochikhin (1950-2003), campaigned against corruption and the influence of organized crime in Russia.



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

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

Some researchers say the symptoms of Shchekochikhin's illness were similar to the radioactive poisoning symptoms of

Khokhlov and Litvinenko.

Tetrachlorodibenzodioxin (TCDD) -- 'Dioxin'

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



Viktor Yushchenko

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

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



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

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

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

Sarin And Other Nerve Agents

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

Ibn al-Khattab



The FSB has said that its operatives killed Ibn al-Khattab (1969-2002), a Saudi-born militant who fought alongside Chechen militants in Russia's North Caucasus during the 1990s and early 2000s. He died in 2002.

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



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

Microengineered Ricin Pellets

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

Ricin is produced naturally within the seeds of the plant *Ricinus communis*, which are crushed to produce castor oil. **The pulp from eight crushed seeds is considered a dangerous dose for adults.**



But deaths from eating castor plant seeds are rare because of the seed's indigestible shell and because the human body can digest the toxin. Ricin is most toxic when it is inhaled, injected, or otherwise ingested into the bloodstream. In the form of purified powder, a dose the size of a few grains of table salt is strong enough to kill an adult.

Georgi Markov



The most infamous case is the so-called umbrella assassination of Bulgarian dissident journalist Georgi Markov (1929-1978) in London in September 1978. Markov, who worked for the BBC and Radio Free Europe, died four days after a microengineered pellet containing the poison ricin was injected into his leg. British investigators suspect the pellet was fired by an



assassin who used a device hidden in the tip of an umbrella while Markov was catching a bus on London's Waterloo Bridge.

Vladimir Kostov

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

Boris Korczak

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

Unidentified Poisons

Hafizullah Amin

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

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

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

Anna Politkovskaya

Russian investigative journalist, human rights activist, and Kremlin critic Anna ce (1958-2006), fell violently ill in September 2004 after drinking tea on an Aeroflot flight from Moscow to southern Russia during the Beslan school-hostage crisis.

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

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



Russian spy poisoning: Police officer from scene in 'serious condition'

Source: <https://www.express.co.uk/news/uk/928598/russian-spy-poisoning-police-officer-serious-condition-sergai-skripal-met-police-latest>

Mar 07 – A POLICE officer is in hospital in a serious condition **after being one of the first on the scene** in Salisbury as Scotland Yard confirmed that former Russian spy Sergei Skripal and his daughter were specifically targeted with a nerve agent.



EDITOR'S COMMENT: First priority is to avoid the victimization of first responders. The “1-2-3 rule” might work here along with an escape hood could have done the job. 21 other bystanders asked for medical assistance as well – including an off-duty physician who applied CPR to victim’s daughter successfully.

NDMA conducts training programme for CBRN emergencies at Mumbai airport

Source: http://www.business-standard.com/article/news-cm/ndma-conducts-training-programme-for-cbrn-emergencies-at-mumbai-airport-118030600405_1.html

Mar 06 – The National Disaster Management Authority (NDMA) is conducting a basic training programme at the Chatrapati Shivaji International Airport in Mumbai. The six-day training programme, starting from today, aimed at enhancing the preparedness of Airport Emergency Handlers (AEHs) to respond to CBRN emergencies at the airports. CBRN emergencies pertain to threats emanating due to Chemical, Biological, Radiological and Nuclear material. The training programme is being conducted in collaboration with the Airport Authority of India (AAI) and Institute of Nuclear Medicine & Allied Sciences (INMAS).

Handling CBRN emergencies need specialised skills and efforts. In fact, even a small CBRN related event can cause panic among people at the airports. This training programme will improve the CBRN safety at our airports by enabling the AEHs to handle any CBRN emergency.

The programme consists of lectures as well as field training, including live demonstrations of

detection and decontamination including use of Personal Protective Equipment (PPE). Besides equipping the AEHs to handle CBRN emergencies, the training programme will also enable them to provide medical first aid and initial psycho-social support.

Experts from stakeholder departments such as Bhabha Atomic Research Centre (BARC), National Disaster Response Force (NDRF), INMAS, National Institute of Mental Health & Neuro Sciences (NIMHANS) will train the participants.

A total of 200 personnel will be trained on various aspects of CBRN emergencies. This includes sensitization of 150 working level staff in a half day module.

Earlier, similar programmes were successfully completed at Chennai and Kolkata airports. NDMA is conducting a series of such programmes at airports across the country to enable AEHs to respond suitably till the arrival of specialised response teams.

EDITOR'S COMMENT: There is no reference to hospitals' involvement in this article. This is a common mistake in almost all drills worldwide. Perhaps planners think that once victims are in the Cold Zone and inside the ambulances the problem is over. WRONG! Next time you plan a CBRN drill ask an ambulance to proceed to the nearest hospital and see what will happen at the emergency department where physicians and nurses on duty have no idea on how to handle casualties exposed to CWAs. What happened with the FOUR CBRN hospitals that Indian government announced in 2017?

Former Syrian general: Hezbollah is in possession of chemical weapons

Source: <http://www.jpost.com/Middle-East/Former-Syrian-official-to-Maariv-Hezbollah-has-chemical-weapons-544567>

Mar 08 – Iran is building and testing short- to medium-range missiles armed with chemical warheads in Syria, former Syrian general Zuhair al-Saqit told *The Jerusalem Post's* sister publication *Maariv*.





Saqit, who heads the Center for the Detection and Monitoring of the Use of Chemical Weapons in Belgium, also said that Iran's Lebanon-based proxy Hezbollah is in possession of chemical weapons, mostly handed to it by the Assad regime in order to hide their existence from international monitors.

In an interview in Paris, Saqit said that a large part of Syria's chemical-weapons stockpiles that was hidden from international inspection bodies has been transferred to Hezbollah.

Tehran continues to be a major supplier of chemical weapons to the regime of President Bashar Assad and continues to develop chemical weapons in Syrian territory, he said. Iranian scientists, technicians and military personnel are developing missiles with chemical warheads with ranges of between 5 and 35 kilometers that can be carried in vehicles or by small army units within Syria – or beyond the border, he said.

Saqit came to Paris to warn European governments that, contrary to popular opinion, the problem of chemical weapons is not off the table.

“The Syrian Army and the militias supporting it carry out daily attacks on the population, which use chlorine gas. Only yesterday there was such an attack,” he said.

Saqit deserted the Syrian Army in 2013 and left the country after being responsible for the scientific development of chemical-warfare weapons during the civil war. He refused to use chemical weapons against civilians, and replaced chemical munitions with harmless materials.

The center he heads today receives and records testimonies from the field and examines them. According to him, contrary to the Assad regime's disclaimers, the videos from Syria showing victims of chemical attacks are not fabricated.

On the issue of Syrian cooperation with North Korea, Saqit confirmed that North Korea had indeed supplied Damascus with chemical weapons and assisted in their installation and operation against civilians. He also said that in his capacity as senior officer in the Syrian Army, he accompanied North Korean officers who came to advise on chemical weapons for the various units.



Nerve Agents: What are they?

By Dan Kaszeta

Source: <https://www.bellingcat.com/resources/articles/2018/03/08/nerve-agents-what-are-they/>

Mar 08 – The former Russian intelligence officer Sergei Skripal and his daughter have been deliberately poisoned, in an apparent act of chemical terrorism. This poisoning occurred in Salisbury, in the UK, on Sunday 4 March 2018. It has recently been [disclosed](#) that this particular act involved the use of a “nerve agent”. Already, there are numerous examples of misuse of basic technical terms. The purpose of this post is to provide an overview of nerve agents and the terminology related to them.

Poisons and the nervous system

There are numerous types of chemical and biological substances that can affect the human nervous system. Some might be tempted to apply the phrase “nerve agent” to any of them. However, this is not consistent with established definitions and usage. The human nervous system is complex, and there are many complicated mechanisms by which toxic substances of either natural or artificial origin could cause damage to the human nervous system. For example, nature is full of “[neurotoxins](#)” such as tetrodotoxin (found in some fish, like puffer fish), botulinum toxin, and conotoxin (found in shellfish).

It should be noted that the word *toxin* has a specific definition which is often abused. When used on its own, the word toxin means a poison or venom of natural origin, such as plants, microbes, snakes, etc. When conjoined with other words like cyto- or neuro- the meaning is sometimes extended to include substances not of plant or animal origin. For example, the metal lead is considered a neurotoxin, even though it is not produced by a plant or animal

What are “nerve agents”

Nerve agents are a specific family of chemicals. The term “nerve agent” has specific definitions in military, scientific, and medical literature and the so-called “nerve agents” are a subset of the broader category that we could broadly call “bad things that affect the nervous



system.” The reference documents that I have checked all consistently **define “nerve agents” as chemicals that interfere with the normal operations of the chemicals acetylcholine and acetylcholinesterase in the human nervous system.** Some sources go as far as to restrict the definition to chemicals in the organophosphate family. However, there is a strong case to be made that chemicals in the related carbamate family could be considered nerve agents because their biological action is similar.

All of the nerve agents are difficult to manufacture, and very difficult to manufacture without causing harm or damage. A large, sophisticated laboratory with access to the correct precursors could make small quantities of them, provided the right knowledge is applied. Large-scale production is very difficult and is largely considered a state-level activity given the size and expense of the required effort.

The human nervous system requires a delicate balance of chemicals to regulate itself. Nerve agents binds to a chemical known as acetylcholinesterase and, in doing so, disrupt the electrochemical reactions required for the body to operate properly. The binding of acetylcholinesterase leads to a build-up of acetylcholine, which then in turn leads to a syndrome called a [cholinergic crisis](#). In effect, the nervous system starts to over-act and muscles and glands start to work over-time.

Routes of exposure

There are several ways nerve agents could enter the human body. These are called “routes of exposure” and are as follows:

- **Respiratory:** Nerve agent in vapour or aerosol (a finely divided mist of solid or liquid) form can be inhaled.
- **Ocular:** Nerve agent can be absorbed by the eyes.
- **Dermal:** Absorption through the skin. Primarily from nerve agents in liquid form, or a very high concentration of aerosol or vapour (usually many times higher than that which is lethal through inhalation).
- **Via Wound:** Through a disruption in the skin. This would generally only occur if nerve agent in liquid form was on a fragment or sharp object and it entered into the human body. This is a rarely considered in military scenarios but could be relevant in assassination situations.
- **Gastrointestinal:** Nerve can enter the body if ingested. This would happen if it was in food or drink, for example. This is rarely considered in military scenarios, but is relevant in terrorism scenarios.

Nerve agents usually operate quickly through respiratory and ocular exposure, with onset of adverse effects within seconds to a few minutes depending on dose. **Absorption through the skin is slower, i.e. minutes to hours, depending on dose.** Rate of action for wound exposure is believed to be intermediate in speed between respiratory and dermal absorption. Gastrointestinal absorption is not well documented but is likely to be fast. It has been theorised that nerve agents could be engineered to have delayed onset of effects.

The signs and symptoms, and their order of appearance, vary depending on the route of exposure. The are drawn from the [Textbook of Military Medicine](#) volume on chemical warfare agents:

Liquid exposure to skin

Rate of Action: Minutes to hours after exposure

Mild/Moderate: Muscle twitching at site of exposure (fasciculations), sweating, nausea, vomiting, weakness

Serious: Mild symptoms, plus difficulty breathing, generalized muscle twitching, weakness, paralysis, convulsions, loss of bladder and bowel control.

It should be noted that miosis (pinpointing of eye pupils) is often a late sign in situations where the victim is exposed only to liquid.

Inhalation of aerosolized droplets or vapour

Rate of Action: Seconds to minutes after exposure

Mild: Miosis (pinpoint pupils), dimness of vision, headache, runny nose, salivation, tightness in chest

Serious: Mild symptoms, plus difficulty breathing, generalized muscle twitching, weakness, paralysis, convulsions, loss of bladder and bowel control



The phenomenon of ingested nerve agents is less well-studied, so the exact presentation of symptoms and the order in which they are likely to appear is less certain, although, logically, gastrointestinal effects might be earlier. The rate of action of nerve agents could theoretically vary. Some compounds are more fat soluble than others, and this affects the rate of absorption through skin.

Persistence in the environment

Given the wide range of theoretically available chemical compounds in the nerve agent family, the persistency in the environment could range from minutes to years, depending on the compound used, temperature, movement of air, and presence of water. The nerve agents that are well-documented all react over time with water.

Military nerve agents

A number of nerve agents are ones that historically were developed and produced for military purposes. The first was *Tabun*, discovered by accident in Germany in 1936 as part of research into insecticides. Other military nerve agents developed later include Sarin, Soman, and VX. All of these particular nerve agents have differing characteristics.

It is very important to stress that military nerve agents are a subset of the overall family of nerve agents. Not every chemical compound that is conceivably part of the nerve agent family is useful in the context of 20th century chemical warfare planning. Just because something is highly toxic, that fact alone does not necessarily mean that it makes for a useful chemical warfare agent on the battlefield. When selecting a nerve agent for use as a battlefield weapon, numerous considerations are important. They include, but are not

- ◆ **Toxicity by weight:** You would want to create the most effect from the least amount of material, as this reduces the number of shells, bombs, etc. you would need to create the desired effects.
- ◆ **Safety in storage:** Something that is hard to store or transport would complicate military logistics. For example, a chemical agent that corrodes metal makes long term storage of bombs and shells problematic. This was the case with Sarin. Special manufacturing techniques and specialty additives were needed to ensure long-term shelf life in US cold war-era Sarin produced in the 1950s.
- ◆ **Mass production:** Making something in small quantities in a laboratory is not the same as developing industrial scale production. Some nerve agents might not have a viable pathway for mass-production, due to a wide variety of factors. Even the ones that were mass produced involved extremely complex engineering.
- ◆ **Economy:** Chemical warfare on a state level requires tons, or even thousands of tons, of stockpiled chemical agents. The overall expense of the effort is, therefore, important. Some theoretically feasible nerve agents might simply be prohibitively expensive to produce in large quantities.
- ◆ **Rate of Action:** Generally, a chemical warfare agent that acts quickly is preferred, rather than one with a lot of latency (i.e. a lag time between exposure and onset of effects). The rapid rate of action of nerve agents is one of the reasons they were seen as preferential to earlier chemical warfare agents like phosgene and sulfur mustard, which had a long latency period.
- ◆ **Physical characteristics:** A nerve agent that is, effectively, a solid at room temperature, would be seen as possibly useless, compared to ones like Sarin and VX which are liquids. Likewise, not every nerve agent might be easily absorbable through skin.

Novichoks

The Soviet Union developed a new series of nerve agents in the 1970s and 1980s. The exact nature of these so-called “novichok” agents is still debated and the information on them varies a bit depending on what source you are looking at. This article in [CBRNe World](#) magazine provides useful information. For an interesting discussion and more information, this [link](#) is of interest. Some Novichok agents of interest include A230 and A232.



Nerve agents that aren't military agents

Given the Salisbury situation, it is important to note that a nerve agent that had not been mass produced for military purposes was used. The planning considerations above simply do not apply if you are looking to make some vial-sized quantity of something for a specific act of assassination. The nerve agent category includes a number of substances, such as Amiton and Parathion which were developed as pesticides, not military weapons. There are numerous theoretical variants of Sarin such as ethyl Sarin and cycloSarin (briefly pursued by Saddam Hussein's military). There are sister compounds of VX, such as VM, VE, and VG. There would be numerous theoretical ways to create chemical molecules in the nerve agent family. **Given what we know so far about the Salisbury situation, it would be premature to fixate on Sarin or VX.** This is especially true when such a panoply of chemicals is available to state actors who historically developed large chemical weapon inventories.

Ways in which nerve agents could be tailored or modified

A sophisticated laboratory with experience in making nerve agents could work to develop or select or modify a nerve agent in ways that could be interesting. As pointed out above, there are characteristics that are ideal for military battlefield use, but there are other characteristics that could be useful for other purposes, such as pesticide use or criminal acts. **These could be theoretically be achieved by developing a new agent, modifying an existing one, combining agents in cocktails, and/or adding additives.** Some features that are theoretically feasible include:

- ◆ **Slower absorption:** The rate at which the chemical is absorbed by the human body could be slowed down, or the rate at which the nerve agent binds with acetylcholinesterase could be slowed in some way.
- ◆ **Lower volatility:** Volatility is the propensity of a solid or liquid to assume a vapour state. None of the nerve agents are particularly volatile. Sarin is the most volatile, relatively speaking, evaporating into vapour in minutes in many conditions. VX is extremely non-volatile and can remain in liquid form for weeks. A low volatility agent in liquid form would mostly be a contact or ingestion hazard, not a wide area inhalation hazard.
- ◆ **Foiling detection:** Chemical warfare agent detectors look for certain compounds. An innovative compound may be difficult or impossible to detect with certain categories of equipment.
- ◆ **Rapid ageing:** All of the nerve agents undergo an ageing process. By this, I mean that the chemical binding between the nerve agent and acetylcholinesterase ages and becomes irreversible over time. For some nerve agents, like VX and Sarin, it is long period. For some nerve agents, like Soman, it is very quick. Once the ageing has occurred, antidotes such as oximes (like 2PAM chloride, used in many nerve agent antidote kits) lose their efficacy. This category of antidote works by freeing the bound acetylcholine before the ageing process has run its course. A nerve agent with a slow rate of action but fast ageing time would be resistant to part of the standard medical treatment protocols for nerve agent exposure.

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Britain deploys specialist troops in city where ex-Russian spy collapsed

Source: <http://www.homelandsecuritynewswire.com/dr20180309-britain-deploys-specialist-troops-in-city-where-exrussian-spy-collapsed>

Mar 09 – Britain has deployed specialist troops to remove potentially contaminated objects from the site where former Russian spy Sergei Skripal and his daughter were found unconscious after a suspected nerve-agent attack.

Skripal, 66, and his daughter Yulia, 33, have been in hospital since they were found on a bench outside a shopping center in the southern English city of Salisbury on 4 March.



Home Secretary Amber Rudd, who visited the city on 9 March, including the area around the bench, said they were both still in very serious condition.

Britain's Defense Ministry and the police said some 180 troops, including some chemical experts, had been sent to Salisbury to remove ambulances and other vehicles involved in the incident as well as other objects.

Counterterrorism police, who are leading the investigation, said in a March 9 statement, "The public should not be alarmed," adding that "military assistance will continue as necessary during this investigation."

Britain has said it will respond appropriately if evidence shows Moscow was behind the incident, which police are treating as attempted murder. Moscow has denied involvement and asserted that anti-Russian hysteria is being whipped up by the British media.

British authorities say they have identified the substance as a rare nerve agent, which experts say should help identify the source, but they have not named it publicly.

Experts say the fact that officials have identified it as a rare nerve agent means it was probably not sarin or VX, which are relatively common.

Nerve agents are highly toxic chemicals that disrupt the nervous system and shut down bodily functions. Both Sergei and Yulia Skripal remain unconscious, in critical but stable condition, while police officer Nick Bailey, who responded to the incident and was also harmed by the substance, remains in serious condition but is now able to speak.



Police said a total of 21 people had been treated in hospital following the incident, but only Skripal, his daughter, and Bailey remain hospitalized. Officials did not immediately explain how the others might have been exposed to the substance.

EDITOR'S COMMENT: The clever (men in white and yellow PPEs) and the brave (firemen in plain uniforms)...

Britain's chief medical officer, Sally Davies, said on March 8 that the general public was not necessarily at high risk, but experts say nerve agents are dangerous and extremely volatile.

A spokesman for British Prime Minister Theresa May said the poisoning was an "appalling and reckless crime."

Rudd on March 8 told Parliament that the use of a nerve agent on British soil "is a brazen and reckless act" but that Britons must avoid speculating on who was behind it.

"This was attempted murder in the most cruel and public way," said Rudd, Britain's top police official. "But if we are to be rigorous in this investigation, we must avoid speculation and allow the police to carry on their investigation."

Rudd said British authorities "will respond in a robust and appropriate manner once we ascertain who was responsible."

"We are committed to do all we can to bring the perpetrators to justice, whoever they are and wherever they may be," she said.

Skripal, a retired Russian military intelligence colonel, was one of four prisoners released by Moscow in 2010 in exchange for 10 Russian sleeper agents in the United States, as part of a swap that included high-profile spy Anna Chapman.

Skripal had been arrested in Moscow in December 2004 and convicted by a Moscow military court in August 2006 of "high treason in the form of espionage."

He was found guilty of passing the identities of Russian intelligence agents working undercover in Europe to Britain's Secret Intelligence Service, or MI6, in return for \$100,000.



Russia's Federal Security Service (FSB) alleged he had begun working for MI6 while serving in the army in the 1990s.

The incident in Salisbury has drawn comparisons with the 2006 death of former Russian security agent Aleksandr Litvinenko in London.

A British inquiry has concluded that the Russian government was behind Litvinenko's death and that President Vladimir Putin "probably approved" the killing. Russia has denied involvement.

Foreign Secretary Boris Johnson has warned that any involvement of a foreign government in the incident in Salisbury would not go unpunished.

Johnson told Parliament on March 6 that Britain might step up sanctions against Russia if it finds that Moscow was involved. He also suggested that Britain could reconsider the participation of its officials in the soccer World Cup in Russia this summer.

Russian Foreign Minister Sergei Lavrov said on March 9 that Britain's warnings of retaliation if it is proven Russia was behind the poisoning of a double agent are propaganda and not serious.

Speaking to reporters during a visit to Ethiopia, Lavrov said Russian officials have seen no concrete evidence or "facts" about what happened to Skripal and his daughter.

"All we see are TV reports...saying that if it is Russia, there will be a response that Russia will remember forever. This is not serious, it is pure propaganda and whipping up hysteria," Lavrov said.

He reiterated Moscow's offer for assistance in the investigation, but said that "in order to have a serious conversation...you have to use the official channels."

"If Russia's help is genuinely needed, we will be willing to consider this possibility if we have the necessary information," Lavrov said.

Toxicologist: Lab with "military capability" likely made poison used on Russian ex-spy

Source: <http://www.homelandsecuritynewswire.com/dr20180309-toxicologist-lab-with-military-capability-likely-made-poison-used-on-russian-exspy>

May 09 – British investigators have announced that a "nerve agent" was used in an attempt to murder Russian former spy Sergei Skripal in Salisbury on 4 March. But they have not specified what nerve agent was used in the attack.

RFE/RL's Ron Synovitz [spoke](#) on 8 March about the case with [Alastair Hay](#), a professor of environmental toxicology at the University of Leeds and a member of the British government's advisory group on chemical warfare agents.

Ron Synovitz: When you consider all the symptoms reported by witnesses who discovered Sergei Skripal and his daughter incapacitated on a bench in Salisbury, and the fact that a first respondent police officer was also exposed, does this information point specifically to any particular nerve agent?

Alastair Hay: It's a laboratory investigation now that has identified the nerve agent. And it was [Britain's] chemical defense establishment. They are very accomplished. The government has said it is not one of the more common [nerve] agents. So what they're essentially ruling out is sarin and VX. [Nerve agents] that you hear less about in the news are tabun and soman. I think it is, possibly, one of those. It could be cyclosarin. But since they said it's not Sarin, they're probably ruling out the Sarin-like compounds. So [of the five main nerve agents], tabun and soman are the likely candidates. Of course, there are other nerve agents as well. We'll just have to wait and see what the final investigation reports.

Synovitz: Victims can be exposed to nerve agents through ingestion, or in the case of an aerosol compound, through inhalation or skin contact. Do you think this attack was carried out with a nerve agent in aerosol form?

Hay: At this stage, I don't know. I was considering that it might have been an aerosol delivery because there seems to have been some residual contamination – which is why one police officer became ill. If he came into contact with a contaminated surface, he would have become ill.



Synovitz: If it was an aerosol delivery, would it have been more likely that they were exposed while they were outside walking rather than inside the restaurant or the pub they'd visited before they became incapacitated?

Hay: More likely, but I have to reserve judgment on that.

Synovitz: Is it possible that an ordinary chemist could have manufactured such a nerve agent? Or is this more likely a case of the nerve agent being manufactured in a laboratory with military capabilities?

Hay: I think it's more a case in which we are talking about a military capability. If you are a diligent chemist, you will find procedures for making sarin and tabun and various other chemical agents. But there's the complexity in making it and how efficient the reaction is. And, of course, there is the risk of exposure in making something, too.

So containment to make sure that the laboratory person is not exposed is absolutely crucial. So I think, really, what one is looking at here is probably more a military-type manufacture. But again, we just have to wait and see.

Synovitz: What kind of evidence do British investigators need to determine how and where this nerve agent was manufactured?

Hay: If the forensic people have been able to get environmental samples, then there is a possibility that they may contain either some breakdown products or unreacted reagents in the mixture. This could help to provide a fingerprint on the method of manufacture. Governments have a fairly good idea of how other governments have produced different agents. So that could also give a clue.

You wouldn't get that sort of information from looking at biological samples; that is, blood or urine from the individual [victims], because the contaminants would be there in very small amounts. But environmental samples would provide you the best opportunity of trying to get a decent fingerprint.

Synovitz: Suspicions have been raised about the possible role of Russia. Are there any other specific lines of inquiry that investigators would be following to determine if there are connections to any state actors?

Hay: Ideally, what they would be looking for is to try to establish that fingerprint by looking at environmental samples to try and get a clue about how it might have been made. If you know the method of manufacture that will give you some clue as to how somebody might have procured something. That would give them a good indication of the possible source.

Then, of course, they will be looking at all the possible contacts of the [victims], where they were, and so on — who might have met them in the intervening period. The investigation will involve looking at camera footage to try to identify many of the people who were in the area. It will be all of that evidence that they'll have to assess.

In my view, it's much, much too early to point a finger at anybody at this stage. It was obviously an intention to kill at least one of them. I don't know whether the daughter was affected inadvertently. Who did it? We have to wait until there is much more evidence.

Synovitz: As a field investigator into previous attacks involving chemical agents, what are the hindrances to being able to say for certainty who carried out a nerve agent attack?

Hay: If you've got a smoking gun, it becomes much more difficult to determine whether there are fingerprints on the trigger if somebody has made an attempt to wipe the fingerprints off. It looks like a pretty sophisticated job. So the complications of identifying are magnified and it's going to be some time before the British government is in a position to say who it suspects.

The implication [of possible Russian involvement] was made by our foreign secretary [Boris Johnson]. But I don't think the evidence warrants finger pointing at Russia at this time. The evidence needs to be assessed in a cold and calm way. Then we'll see what it indicates.

Synovitz: How long do you think it will take before the British government will be in a position to point a finger in this case?

Hay: I think we will be talking about weeks in this instance. What form all of the investigations are going to take and what routes the government is going to pursue, I am unclear. But I would think quite a lot of that evidence would be collected over weeks. Possibly months. But



that's unlikely. The government is under pressure here to do something quickly. It will be putting pressure on everybody to try and come up with their evidence promptly so it can be assessed.

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TAR's Mobile CBRNe Solution - CBRNe VEHICLE

Source:http://bcm.tarideal.com/?utm_source=activetrail&utm_medium=email&utm_campaign=CBRN



WRONG

TAR's CBRNe vehicle delivers a complete mobile solution for CBRNe detection, sampling and analysis and may be integrated into any vehicle of sufficient size.

laboratory

The TAR' CBRNe vehicle is fully customized to meet the tactical and operational environment of the customer. Our vehicles provide grade equipment for accurate on-site detection and analysis.

CBRNe VEHICLE (AREVE)

Source:https://www.indracompany.com/sites/default/files/indra_areve_vehicle_cbrn_v0417a_eng_02_0.pdf



Indra provides complete solutions for defense and protection from CBRN threats, covering alert, detection, identification, protection, decontamination and information management and processing capacities (C2 systems) for both civilian and military customers. Indra's Lightweight CBRN Reconnaissance Vehicles are suitable for onsite detection of Chemical, Nuclear-Radiological and Biological compounds, allowing detection and first identification of threats, enabling a quicker, more decisive response to the threat.





Inside the AREVA Lightweight CBRN Recon Vehicle

Applications

The development of the chemical, biological, radiological and nuclear arsenals by a number of countries, coupled with the increasing tendency of terrorist groups to use potentially these agents in their attacks, has brought home the need to adequately protect the general population from CBRN menace. Increasingly, critical infrastructures such as airports, underground stations, and railway hubs are being targeted by terrorists, an attacks of this nature on a large population centre could have devastating consequences. In addition to terrorist and military CBRN threats, industrial activity often entails dangers for nearby population centers. An accident could easily generate a toxic cloud or contaminate the water supply to nearby populated areas, putting thousands of lives in danger.

- ◆ Tasked to detect and identify the CBRN threat using advanced detection equipment and procedures.
- ◆ This vehicle is triggered by the Monitoring vehicle when an alarm is produced.
- ◆ The reconnaissance vehicle is fitted with a set of automated sampling system.
- ◆ AREVE vehicle would produce the corresponding Analysis Report status of the contamination and disseminate it in real time through the C2 system. The incident commander and reach-back cell would have immediate access to results for decision making.
- ◆ Samples and evidences are properly referenced, tracked and stored (keeping custodian chain) for further judicial purposes

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What Was the Mysterious WMD an Assassin Used on a Russian Spy? The Answer Could Lead to Vladimir Putin.

Source: <https://www.thedailybeast.com/what-was-the-mysterious-wmd-an-assassin-used-on-a-russian-spy-the-answer-could-lead-to-vladimir-putin>

Mar 09 — Shooting from a distance may indicate a killer is experienced, knife murders are personal, while blunt objects could point to

the unplanned motives of fear, desperation, or rage.

Even in major international incidents like the one [playing out in](#)



[Salisbury in southwest England this week](#), an awful lot can be determined from the choice of weapon.

Poisoning a Russian double agent exiled in Britain with a lab-made substance? Well, that's usually an assassination ordered by the Kremlin.

Britain's police detectives and [security services now need to prove it](#).

Scotland Yard's counterterrorism detectives are deep into a sophisticated version of classic murder weapon analysis with the help of Ministry of Defence biological weapons experts at the Porton Down military research facility.

This weapon of mass destruction was deployed against a Russian father and his daughter who were spending a leisurely Sunday afternoon in the picturesque cathedral city of Salisbury. The WMD was so powerful that 21 people have been treated for its effects.

The **Porton Down facility** has been home to Britain's defense and technology research since

Samples were being analyzed within hours of the discovery after local police began to feel a physical reaction and officers raced to shut down the areas of contamination. Witnesses reported seeing the victims **unconscious, with their eyes rolled back, and foaming at the mouth**.

Skipral and his daughter were isolated immediately. About 24 hours after the attack, it was determined that they were suffering from some sort of nerve agent in their system. While Skipral has stabilized, his daughter remains in critical condition; both are being treated in the intensive care unit, along with a police officer who was called to investigate this mysterious illness.

Based on their symptoms and the contamination patterns, scientists who spoke to The Daily Beast are **convinced this was a nerve agent attack and not radiation exposure, a cyanide attack, or a biological weapon**.

"In these recent cases, the symptoms described



reports emerged from First World War battlefields that the Germans had killed 140 British soldiers with chlorine gas in January 1915. **Coincidentally, the highly secretive facility is located on the outskirts of Salisbury, just seven miles from where former Russian military intelligence colonel Sergei Skripal and his daughter, Yulia, were found on Sunday.**

like frothing at the mouth, vomiting, convulsions and coma—that's more likely a nerve agent," said [Timothy Erickson](#), chief of medical toxicology at Boston's Brigham and Women's Hospital and faculty at Harvard Medical School. Erickson published a [paper](#) last year in the journal *Toxicology Communications* about last the



[fatal February 2017 attack on Kim Jong Nam](#), the half-brother of North Korean dictator Kim Jong Un, which used VX—short for “Venomous agent X.”

VX was invented by British biological warfare experts at Porton Down, the very same facility where tests are underway this week.

Sarin and VX—dangerous neurochemicals that disrupt nerve-organ messaging and shut down basic bodily functions—are the most popular of the agents, but others with similar properties do exist.

A senior intelligence source told the BBC that it is believed sarin and VX were not the agents used, posing the question: What was used instead and what can that tell us about the source?

Around World War II, Nazi scientists synthesized an entire “G-class” of nerve agents that not only included sarin, but also soman, cyclosarin, and tabun, variants that also debilitate the nervous system.

[They were discovered accidentally while manufacturing pesticides](#), which can have similar effects on humans, but they remain extremely difficult to produce. [Mark Bishop](#), a chemical weapons specialist in nonproliferation at the Middlebury Institute of International Studies in Monterey, California, said that producing them requires a technical capacity and scientific know-how that isn't possible in many places. “It's tricky,” Bishop said. “It requires a pretty high level of expertise for producing chemicals.”

Bishop said it was possible but highly unlikely that the **Russians had developed a totally new nerve agent.** “They're probably making an attempt [to create other nerve agents], but it's tough. There's no real incentive to create a new nerve agent—they already work so well. The only motivation to create a new one would be if they wanted them to not be identified as chemicals or to fly under the radar.”

One option that is unlikely but potentially alarming is that Russia has finally succeeded in its Soviet era mission to create a new class of nerve agents [referred to as novichoks](#) whose molecules were not detectable through modern lab testing methods. “They tried to keep it a secret, and there's pretty skimpy evidence that it was happening,” Bishop cautioned. “But it's an

interesting possibility that would point directly to the Russians.”

No matter what substance was used, conclusively tracing the orders back to the Kremlin will prove difficult. Alexander Litvinenko was murdered in 2006 by a fatal dose of the radioactive substance polonium-210, which was slipped into his teapot at an upmarket hotel in Mayfair, central London.

After a similar scientific rush to identify the high-tech poison, Scotland Yard detectives were able to follow a literal trail of radioactivity all over London including the hotel rooms where the assassins stayed and even to the Arsenal soccer stadium where they took in a match before the radioactive traces followed them on a plane back to Moscow.

Judging by the rush to secure Skripal's home, the restaurant where he shared lunch with his daughter, the pub where they retired afterwards, and the hospital where they were treated, it seems there were fears that contaminated footprints were indeed being left along the way.

That [21 people have been admitted to the hospital](#) for exposure to the mysterious substance is also indicative. It's probably what is termed in the chemical warfare community a “**persistent agent.**” A substance that was not persistent would have dissipated quickly in a wide open area—advantageous in an attack on a population, for example, in which doing so might help armed forces clear out the civilian population and then move through quickly. The police officer, Nick Bailey, who was affected later at second-hand was so severely afflicted that he had to be treated in intensive care, although he is now conscious and talking.

The weapons experts at Porton Down will be examining every molecule and the patterns of the substance's distribution around Salisbury in the hope that they can find a specific chemical signature that will allow this agent to be traced back to its source.

When Britain finally held an inquiry into the murder of Litvinenko—another former Russian intelligence agent who was exiled in Britain—it concluded that the order to assassinate him “probably” came direct from Vladimir Putin.

Russia simply denied it, and despite a decade of increasingly tense relations, London did not



impose any additional sanctions against Moscow. If a similar trail leads back to Moscow this time, the government will be under great pressure to act more decisively.

At least since the late 1950s, the KGB (the Soviet forerunner of the Russian FSB) has been hunting down enemies abroad. The agent [Bohdan Stashynsky](#) was dispatched to Munich with a specially constructed poison pen that sprayed a cloud of cyanide gas at right-wing nationalist Stepan Bandera, who had fought against the Soviet Union for Ukraine's independence, sometimes in league with the Nazis.

Documents smuggled out of Russia by former KGB archivist Vasili Mitrokhin showed that the Soviets also lent a hand to their Bulgarian comrades who carried out the notorious umbrella assassination of the dissident playwright Georgi Markov in 1978. Markov was on his way to the BBC when a pellet of ricin was fired from the modified umbrella into the back of his leg.

An inquest into the death of Alexander Perepilichnyy will reopen in Britain next month. British police initially believed that it was a coincidence that the whistleblower—who was due to give evidence in a huge corruption case against Russia in Switzerland—suddenly dropped dead while out running near his home. A botanical expert later discovered traces of the bright yellow trumpet-shaped flowers of *Gelsemium elegans* in his stomach. The plant, which grows only among the foothills and mountains of Asia, has been known as a naturally occurring nerve agent since at least the 1870s when its deadly properties were described by Sir Arthur Conan Doyle, the creator of Sherlock Holmes.

More recently, it has been deployed by contract killers and assassins from China and Russia.

A former KGB officer told The Daily Beast that Western assumptions that these deadly concoctions must have been devised and authorized by the state showed a deep misunderstanding of Russia.

"People actually underestimate the level of corruption in Russia—any Russian will tell you that the corruption is so high that you can get anything, anything you want," said Alexander Vassiliev. "You want polonium? You get it—just pay the money."

Vassiliev, who became a KGB historian after retiring from the service, said the deaths of Skripal's wife, son and brother in recent years made this look more like a mafia revenge attack than a Kremlin-sanctioned mission.

"I was a cadet in the KGB spy school exactly at the time when Putin was—we had the same training, we had the same instructors, we had the same textbooks, so I always have an idea about how he is thinking," he said. "Intelligence services in civilized countries don't do revenge—emotions shouldn't have a place in espionage—it's not like two guys got drunk in Moscow, decided to go to Britain and kill a traitor, it doesn't work like that."

But Vladimir Putin knows the power of symbols, and it is perhaps relevant that at just this moment he is [looking to be reelected president of Russia](#) with as massive a majority as he can muster. His tough guy posturing with nuclear weapons and the not-so-mysterious attempted murder of a man deemed a traitor by his comrades and many of his countrymen, even when Putin denies any connection to it, fits well into his tough-guy campaign.

Skripal was widely thought to have retired after being involved in the biggest spy swap since the Cold War, which saw [Anna Chapman, who was caught in New York, returned to Russia](#) among others.

Some British newspaper reports have suggested, however, that he may have still been working either for MI6—his handlers when he was spying from Russia—or freelancing for private intelligence companies including Orbis, [which is run by Christopher Steele, who compiled the infamous Trump/Russia dossier](#).

"Of course, he was a traitor—he committed high treason. In the Soviet Union he would have been executed, definitely," said Vassiliev. "But you only want to kill someone in espionage if you expect this guy to bring further damage to your country or your intelligence agency."

Where Vassiliev, the scientific community and the British authorities all agree, is on the brazenness of this attack, which could never have gone unnoticed.

Bishop, the weapons expert in California, said the failure to immediately kill the targets—and incidental poisoning of 21 people—suggested that this was a sloppy



job. "Nerve agents are pretty potent, and you don't need a high concentration to kill someone," he said. "It's really surprising that they're still alive. Either it was not a potent nerve agent or it was not administered efficiently or it was impure and the proper concentration was not transferred."

Vassiliev agreed. "Generally it doesn't look like a special service operation because the whole thing was done in the daylight, as far as I understand. On the other hand you can never be sure about it because many things can go wrong, there could have been a mistake—no secret agent is perfect."

Leading British politicians have stopped short of blaming Russia directly, but have promised retaliation, calling it an "act of war" if proven.

The use of a nerve agent to assassinate an opponent is a blatant violation of the Geneva War Convention, the Chemical Weapons Convention, and various international chemical weapons treaties. Russia has explicitly stated and certified that they had destroyed their stockpile of nerve agents, in compliance with the Organization for the Prohibition of Chemical Weapons.

No independent checks were carried out, that certification was based on Putin's word.

Factbox: A few facts about the nerve agent Novichok

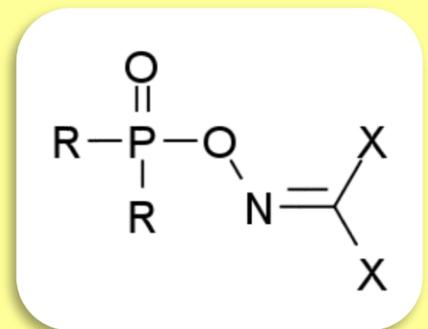
Source1: <https://www.reuters.com/article/us-britain-russia-chemicalweapons-factbo/factbox-a-few-facts-about-the-nerve-agent-novichok-idUSKCN1GO2JG>

Source2: <https://www.npr.org/sections/parallels/2018/03/12/592964624/nerve-agent-found-in-u-k-is-rare-and-definitely-russian>

Mar 12 – British Prime Minister Theresa May said on Monday it was "highly likely" that Moscow was responsible for the poisoning in the English city of Salisbury of a Russian former double agent with Novichok, one of the deadliest chemical weapons ever developed.

Here is a brief overview of Novichok:

- First developed in the former Soviet Union in the 1970s and 1980s, Novichok, or "newcomer", is a series of highly toxic nerve agents with a slightly different chemical composition than the more commonly known VX and sarin poison gases.
- Novichok agents are believed to be five to 10 times more lethal, although there are no known previous uses. Moscow is not believed to have ever declared Novichok or its ingredients to the Hague-based Organisation for the Prohibition of Chemical Weapons (OPCW), which oversees a treaty banning their use.
- Novichok, **the fourth generation of poison gas, was made with agrochemicals** so that offensive weapons production could more readily be hidden within a legitimate commercial industry, according to U.S. chemical weapons expert Amy Smithson.
- There are 100 different types, (best known is Novichok-5).
- Publications about development and testing of Novichok in the 1990s led to U.S. suspicions that the then USSR had a secret weapons program and did not declare all it had in its stockpile when it joined the OPCW.
- According to [a defector's report published by the Stimson Center in 1995](#), they were developed at the [State Scientific Research Institute of Organic Chemistry and Technology](#) in Moscow. As the U.S. and Russia were laying the groundwork to dismantle their chemical weapons stockpiles, researchers at the institute were working in secret to develop the new Novichok chemicals. According to the report,



by a former scientist named Vil Mirzayanov, the agents were similar to deadly nerve agents but far more powerful. They were also designed to be made using commercially available chemicals, organophosphates, used in fertilizers and pesticides. The goal was to develop a new class of nerve agents that could be stockpiled in secret, even as the U.S. and Russia pledged to destroy their existing chemical weapons. According to Mirzayanov's report, several new agents emerged from the Novichok program. One, known as Novichok-5, was five to eight times as deadly as the agent VX, which was used [last year to kill the half-brother of North Korean leader Kim Jong Un](#).

- Russia, along with the United States, once ran one of the largest chemical weapons programs in the world. It completed the destruction of a stockpile declared to the OPCW last year. The United States is in the final stages of destroying its own stockpile.
- Russia was once believed to possess thousands of tonnes of weaponised Novichok varieties and their precursors, according to a 2014 report by the U.S.-based Nuclear Threat Initiative, a non-partisan group working to reduce the threat of weapons of mass destruction.
- **The chemical “causes a slowing of the heart and restriction of the airways, leading to death by asphyxiation”**, said pharmacology expert Prof. Gary Stephens at the University of Reading. “One of the main reasons these agents are developed is because their component parts are not on the banned list.”
- Novichok agents are dispersed as an ultra-fine powder rather than a gas or vapour.
- Russian chemists, Lev Fedorov and Vil Mirzayanov, blew the whistle on the existence of novichok due to questions of environmental hazards and other issues. Milzayanov after serving jail time for treason, is in the US. “I suspect the US knows more about the chemistry and synthesis of the chemical- but maybe they are not allowing it into open literature for the following reason: Small batches of the chemical were weaponized and tested near Ustyurt Plateau, a central plateau in Uzbekistan and since the independence of this nation-they have worked with the US to decontaminate and dismantle manufacture sites for novichok.
- The weaponisation of any chemical is banned under the 1997 Chemical Weapons Convention, of which Moscow is a signatory. The Salisbury attack was to be raised in closed door sessions of the OPCW's executive council when it begins three days of meetings in The Hague on Tuesday.

►► Read also: <https://alchetron.com/Novichok-agent>

MoD: Russia to Respond if its Military Threatened by Possible US Strike in Syria

Source: <https://sputniknews.com/middleeast/201803131062469487-russia-syria-us-military/>



Mar 13 – After the false flag chemical weapons attack, the US planned to strike government held districts in Damascus as a "response," according to the Chief of the Russian General Staff Valery Gerasimov.

Russian armed forces will respond if the lives of [Russian servicemen](#) in Syria are threatened, including in the event of a [missile strike](#) on Damascus, the Russian General Staff said.

"According to reports, after the false flag attack, the US plans to accuse the Syrian government troops of using chemical weapons, and to provide the world

community with the so-called 'evidence' of the alleged mass death of civilians at the hands of the Syrian government and "Russia supporting it," the chief of the General Staff said. In



retaliation, Washington, according to Gerasimov, "plans to launch a missile strike on the government-held districts of Damascus."

At the same time in Damascus, in the offices and facilities of the Ministry of Defense of Syria, there are now Russian military advisers, representatives of the Center for the Reconciliation of Warring Parties and military police, Gerasimov stressed.

"We have reliable information about militants preparing to falsify a government chemical attack against civilians. In several districts of Eastern Ghouta, a crowd was assembled with women, children and old people, brought from other regions, who were to represent the victims of the chemical incident," Gerasimov said.

According to Gerasimov, **"White Helmets" activists and film crews had already arrived at the scene with satellite video transmitters are already in place.**

"This has been confirmed by the discovery of a laboratory for the production of chemical weapons in the village of Afris, which was liberated from terrorists," Gerasimov stressed.

"Despite constant attempts by militants to disrupt peace initiatives in Eastern Ghouta, the situation in the suburb of Damascus shows a trend toward stabilization. Since the entry into force of UN Security Council Resolution 2401 of February 24, 2018, [a total of] 145 civilians and 13 representatives of armed opposition, including 76 people overnight, have been withdrawn from Eastern Ghouta through the humanitarian corridor created by the Russian Federation," Gerasimov added.

The statement comes a day after US Envoy to UN Nikki Haley threatened with Washington's strike against Damascus in case the chemical weapons use in Syria.

In his turn, Russian Ambassador to the UN Vasily Nebenzya said that Nusra Front* militants used chemical weapons in East Ghouta, injuring 30 civilians.

Earlier, US Director of National Intelligence said that Trump Administration is considering new attacks against the Syrian Government in response to reports of chemical weapons' use.

Damascus has constantly denied being in possession of chemical weapons, the destruction of which had been confirmed by the [OPCW report](#).

When commenting on allegations of the Syrian army's use of chlorine in Eastern Ghouta, Syrian President Bashar Assad said that there are aimed at justifying an attack on Damascus.

Earlier, [UN Resolution 2401](#), which was passed by the Security Council on February 24, urged the parties to the Syrian conflict to stop all fighting's and adhere to a humanitarian pause across the country in order to ensure the safe and unhindered delivery of humanitarian aid.

Eastern Ghouta was occupied by militants in 2012. According to the Syrian Army, there could be 10,000-12,000 militants in the area. But even after the UN resolution, the fighting has not ended.

**Nusra Front is a terrorist group banned in Russia*

'You cannot imagine the horror, it's so bad': Russian scientist who developed Novichok describes agonising convulsions caused by poison used on Sergei Skripal

Source: <http://nordic.businessinsider.com/novichok-scientist-vil-mirzayanov-describes-nerve-agent-used-on-sergei-skripal-2018-3/>

Mar 13 – A Russian scientist who developed Novichok, [the nerve agent used on ex-spy Sergei Skripal in Salisbury](#) earlier this month, has revealed the poison's gruesome effects in light of the attempted assassination.

Vil Mirzayanov, who led a counter-intelligence department of the then-Soviet Union's military, [told The Daily Mail](#) that his creation causing victims to convulse and lose the power to breathe, all while in excruciating pain.

The 83-year-old told the newspaper on Monday night:

"It's for paralysing people, it causes you convulsions and you can't breathe and after that you die, if you get enough of a dose of it.



"It's real torture, it's impossible to imagine. Even in low doses the pain can go on for weeks. You cannot imagine the horror, it's so bad."



Skripal and his daughter collapsed on a bench in Salisbury on March 4, and have been in critical condition since. [British Prime Minister Theresa May revealed on Monday evening](#) that the weapon used in the attempted assassination was Russian-made Novichok. A witness at Zizzi, the restaurant where the Skripals were eating before they collapsed, [told the BBC](#)

that the elder Skripal "seemed to lose his temper" and "just started screaming at the top of his voice, he wanted his bill and he wanted to go."

Mirzayanov participated in the research, development, and production of chemical weapons, including Novichok, for the Soviet Union towards the end of the Cold War.

In 1992 he was fired and jailed on charges of treason, after attempting to reveal the extent of the country's chemical weapons programme. He has been living in exile in New Jersey since the 1990s.

The scientist blamed Putin for the attack on Skripal, who passed Russian state secrets to British intelligence from 1995 and was granted asylum in the UK in 2010.

He said: "It's a brazen attack. Putin thinks he can use everything to kill enemies. They don't tolerate any opponents.

"They should be punished. It's an open demonstration of this Russian terrorism.

"The Russian government is telling people who are thinking about revealing more secrets that they can expect the same fate."

[Experts also said](#) that the use of Novichok showed that Russia wanted to make known that it was behind the attack.

Theresa May has given Russia until Tuesday night to offer a "credible response" to her Monday accusation. She said that if it did not, she would conclude that the attack was "an unlawful use of force by the Russian State against the United Kingdom."

Iraq welcomes certification it has destroyed all chemical weapons

Source: <http://www.rudaw.net/english/middleeast/iraq/150320182>

Feb 15 – The Iraqi government has welcomed official certification that it has destroyed its chemical weapons, though officials from Halabja fear that some remnants remain.



The Iraqi Government "welcomes the announcement by the Organization for the Prohibition of Chemical Weapons (OPCW) certifying that Iraq has destroyed all of its chemical weapons remnants, and fulfilled all its obligations deriving from the Chemical Weapons Convention," it announced in a tweet Thursday evening.

[A man walks through Halabja's graveyard for victims of the March 16, 1988 chemical weapon attack.](#)
File photo: Safin Hamed/AFP



Iraq “is committed to the provisions of the Chemical Weapons Convention, and its underlying vision of a world free of chemical weapons and of the threat of their use,” it added.

The Director General of the OPCW, Ahmet Uzumcu, congratulated Iraq in The Hague earlier this week, describing it as a “notable achievement.”

He presented Iraqi Minister of Higher Education Abdulrazzaq al-Jaleel Essa with a certificate recognizing the complete destruction of Iraq’s chemical weapons remnants.

The OPCW confirmed the destruction of four former chemical weapons production facilities in Iraq.

One former site was approved for conversion for other purposes and will be subject to regular inspections for another ten years.

Iraq had also declared chemical weapons remnants stored in two bunkers in al-Muthana, which it began destroying in 2017.

The head of Halabja’s Chemical Weapons Victims Society expressed doubt that all the country’s chemical weapons have been destroyed.

“We do not think this news is true and believe there are still chemical weapons existing in some places as per our information,” Luqman Abdulqadir told Rudaw English.

Hikmat Fayaq, a member of the high board of the Halabja Victims Society, agreed that Iraqi still has some chemical weapons, hidden in Muthana province.

“These weapons were buried and covered with concrete by the Iraqi Baathist regime,” and the current government has not destroyed them, he told Rudaw English.

If these “weapons are not exterminated, they will pose a serious threat to the environment” if they dissipate over time, he said.

Fayaq also expressed concern that ISIS had obtained chemical weapons.

Tomorrow, **March 16, marks the 30th anniversary of the Halabja chemical weapon attack.** An estimated 5,000 people were killed and another 10,000 injured when the Iraqi regime dropped deadly gas on the Kurdish city. It is the largest chemical attack against a civilian population in history.

Iraq signed onto the Chemical Weapons Convention in 2009. The Convention aims to entirely eliminate the weapons of mass destruction.



The OPCW received the Nobel Peace Prize for its work in 2013.



Russia Mocks Theresa May as Britain Feuds Over Deadly Poisoning

Source: <https://www.vanityfair.com/news/2018/03/russia-mocks-theresa-may-as-britain-feuds-over-deadly-poisoning>

Mar 14 – In the most dramatic foreign-policy clash between Russia and Britain in decades, British Prime Minister Theresa May announced the expulsion of 23 Russian diplomats and the termination of all high-level diplomatic contact following the poisoning of former spy Sergei Skripal and his daughter, Yulia, in Salisbury last week. The attempted murder with a Soviet-era nerve agent quickly prompted May to issue a 24-hour ultimatum to Moscow: provide a satisfactory explanation for the incident or face the consequences. On Wednesday, after the clock ran out, May outlined the consequences in a speech before the House of Commons. “[Russia] have treated the use of a military-grade nerve agent in Europe with sarcasm, contempt, and defiance,” said May. “Their response has demonstrated complete disdain for the gravity of these events. They have provided no credible explanation.” In addition to expelling Russian diplomats, there will be no ministerial or royal presence at the upcoming World Cup. Britain has also reserved the right to freeze Russian assets if there is evidence they constitute a security threat, and to enact new “targeted” powers to detain people suspected of “hostile state activity at borders.”



May’s reprisal, while generally well received in Westminster, was derided by her opponent, Jeremy Corbyn, who responded with a speech questioning the race to finger Moscow. As he spoke, Foreign Secretary Boris Johnson’s eyes practically rolled back in apoplexy. The bipartisan outrage peaked when Corbyn spokesman Seumas Milne confirmed that the Labour Party leader’s stance was, indeed, exactly as his critics claimed: he refused to blame Russia until there was tangible proof of their culpability. Past incidents of faulty intelligence with regards to weapons of mass destruction were cited. So, too, was the possibility that Russia may have lost control of their nerve agent. “If true, Seumas Milne’s comments to the lobby are an utter disgrace,” one Labour M.P. [spluttered to the Times](#). “Putin’s craven, constant and shameful apologist might just as well stand aside and let the Kremlin write the speeches and brief the media directly.” Political commentator Steve Richards adopted a more sympathetic stance. “UK foreign policy framed in the context of ‘national consensus’ and yet in an atmosphere of hysteria tends to go badly wrong. A Labour leader is always under huge pressure to join the consensus until the policy goes wrong at which point few admit to supporting it in first place,” he [tweeted](#).

As British M.P.s skirmished over Labour’s position on the poisoning—is it unashamedly pro-Putin? Is it worryingly Trump-like? Is it an antidote to a febrile atmosphere that emboldens the government to suggest new “targeted powers”?—Corbyn’s rebuttal set off another, more controversial debate. London is a well-known center for Russian money laundering and criminality. As the *Financial Times* reported in July 2016, a Home Affairs Select Committee estimated that more than £100 billion is [laundered through the U.K.](#) every year—an amount that outstrips the annual G.D.P. of 130 countries. At the same time, the city has offered political asylum to many of Vladimir Putin’s enemies, who have, in turn, attracted an army of Russian spies. (According to British intelligence officials, there are currently more Russian agents in London than at the height of the Cold War.) This volatile combination raises two questions: what is the government going to do to tackle Russian criminality in the U.K.? And how can it safeguard its Russian wards? To the outrage of many, it took the government 10 years to conclude that Putin “probably” approved the assassination of Alexander Litvinenko, who died after drinking tea laced with radioactive polonium. Following the Skripals’ poisoning, Litvinenko’s widow told Sky News that May, then home secretary, had failed to act over her husband’s murder.

A robust response to Moscow means more than dramatically expelling 23 diplomats while still allowing tainted money to flow through London’s financial systems. May is aware of this: her government can easily outline lists of sanctions and garner international outpourings of



support. The hard part is crafting the foundations of a cohesive international strategy, too. As my colleague Peter Savodnik [writes](#) for the Hive, the significance of the poisoning spans beyond Salisbury. A similar attack is inevitable in the U.S., or elsewhere, as Russia pushes the boundaries in its ever-widening “[special war](#)” with the West.

The May-Corbyn fight exposes the difficulties of forging a unified position on Putin. So, too, did Donald Trump’s days of equivocation—shadowed, as ever, by Robert Mueller’s ongoing investigation into Russian meddling in the presidential election. Russia doesn’t just represent an external threat, but one that has become entangled in the culture wars dividing right from left, nationalists and globalists, and sundry populist movements across the world. Russian intelligence, always one step ahead of the West, has exploited those tensions and anxieties, especially on social media, to politicize issues that might otherwise have been sacrosanct. And so Corbyn and Trump hedge and hesitate.

It remains to be seen whether Britain is aided by its allies in the European Union, with which it is in the process of a painful divorce, or by the United States, which has retreated into its own isolationism. “The Russian authorities don’t feel themselves isolated at all,” Thomas Gomart, director of the French Institute of International Relations, in Paris, [told](#) *The New York Times*. “They feel there is disarray in the West because of the situation in Washington, because of Brexit, because of the Italian elections, and the difficulty of forming a government in Berlin.”

As Britain’s leaders stand divided, the most consistent response to the attack has come from Russian officials, who have adopted a familiar tone of wry, outraged incredulity. The Russian Embassy issued a response deeming the mass diplomatic expulsion “totally unacceptable, unjustified, and shortsighted.” Russia’s ambassador of the Organization for the Prohibition of Chemical Weapons accused the U.K. of “[pumping hysteria](#)” over the poisoning. The Russian Foreign Ministry, meanwhile, which summoned Britain’s ambassador in Moscow, struck a more flippant angle. Mocking May for her conclusion that it’s “highly likely” that Russia was behind the attack, it [tweeted a message](#) expressing “sincere thanks to Mrs May for #HighlyLikelyRussia” (a hashtag that refers to the West blaming everything on Russia). The tweet was accompanied by a video suggesting the country was to blame for the recent snowfall across Britain.

UK to open chemical weapons facility to counter Russian threats

Source: <http://www.presstv.com/Detail/2018/03/15/555531/UK-Williamson-Russia-chemical-weapons>



Military personnel wearing protective coveralls work to remove a vehicle connected to the nerve agent attack in Salisbury from a residential street in Gillingham, southeast England, on March 14, 2018. (Photo by AFP)



EDITOR'S COMMENT: (1) In the photo one can see the “few” (CBRN first responders) and the “brave” (background soldiers in plain uniforms just one or two meters away!) (2) Why the military CBRN was so early involved in the first place? What about HART Teams or Civil Protection/PHE? All that training for nothing? It would be nice to see some photos or videos from hospital's ED receiving the 3 victims.

Mar 15 – **The UK government is planning to open a multimillion-pound facility to conduct research on chemical weapons, British Defense Secretary Gavin Williamson will announce on Thursday, citing threats from Russia and North Korea.**

Scheduled to speak at an event hosted by Policy Exchange and Rolls Royce in Bristol, Williamson will say that the Ministry of Defense (MoD) is shelling out £48 million (\$66 million) to build the facility at the Defense Science and Technology Laboratory (DSTL) in Porton Down.

The announcement comes amid heightened tensions between the UK and Russia over a recent nerve agent attack on Russian double agent Sergei Skripal and his daughter outside a shopping center in Salisbury.

Calling the attack “shocking and reckless,” Williamson will say that the new investment ensures “we maintain our cutting edge in chemical analysis and defense.”

“If we doubted the threat Russia poses to our citizens, we only have to look at the shocking example of their reckless attack in Salisbury,” Williamson is expected to say. “We know the chemical threat doesn't just come from Russia but from others.”

Following the attack on Skripal, Britain tasked the DSTL in Wiltshire with analyzing the nerve agent that was used to poison the former spy. It was the same laboratory that ultimately linked the attack to Russia. Williamson will use what he describes as a growing chemical, biological, radiological and nuclear threat from some governments to announce that thousands of British troops held at high-readiness will be vaccinated against anthrax.

This allows British troops to be deployed to areas where the risk of this type of attack exists.

UK's chemical weapons

Britain is known to have developed and used chemical weapons as early as the First World War. The UK Armed Forces continued to produce and experiment with such chemical agents as sarin, chlorine, phosgene, anthrax and mustard until early 1990s.

In 2014, *The Guardian* revealed that Former British Prime Minister Margaret Thatcher considered restarting Britain's chemical weapons (CW) program at a cost of up to £200 million.

The UK finally signed the Chemical Weapons Convention in 1993 but there is little official information about the country's progress in destroying its stockpiles of chemical and biological weapons.

►► Read also the comments made at source's URL.

Russia's chemical weapons commander was a Mossad target

By Ronen Bergman

Source: <https://www.ynetnews.com/articles/0,7340,L-5172264,00.html>

Mar 16 – Despite commitments by Moscow in the 1980s that it would dispose of its chemical weapons and refrain from developing them, Israel attempted to inform the Kremlin that its chief scientist was secretly selling development know-how to the Syrians. When the warnings were ignored, the scientist mysteriously died on a plane.

Ronen Bergman|Published: 03.16.18 , 23:31

One of the heads of the Russian chemical weapons program and the individual who was considered to be the head of the Novichok project—which saw the development of a series of nerve agents by the Soviet Union in the 1970s and 1980s ultimately [used on UK soil](#) earlier



this month against former Russian agent Sergei Skripal—was for many years in the sights of an Israeli intelligence analyst.

Russia had already begun developing chemical weapons by the end of the Second World War, and possibly even beforehand. At the beginning of the 1970s, the country's scientists began creating more lethal nerve agents, among them the "Novichok," the production of which was overseen by General Anatoly Kuntsevich—a physics and organic chemicals expert considered to be one of the foremost expert in the field in the Soviet Union.

In the middle of the 1980s, under General Secretary Mikhail Gorbachev, the Soviet Union declared that it would sign the Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons. In 1987 the Soviet government announced that it would unilaterally bring to a halt its production and in 1989, Foreign Minister Eduard Shevardnadze said that his country would "completely" abandon its production of poison gas.

Over the next decade, after the collapse of the Soviet Union and under the rule of President Boris Yeltsin, Russia experienced an economic collapse and was in need of help from the West.

The United States demanded that it be involved in disarming of weapons of mass destruction, especially chemical weapons, and Yeltsin appointed General Kuntsevich to serve as his liaison with the West. However, Russia apparently disposed of only part of its chemical weapons arsenal and proof of the fact



that it failed to relinquish control of all the materials necessary for producing them quickly became knowledge among spies and journalists in the West.

General Anatoly Kuntsevich

Will Englund, a writer for the Baltimore Sun, published testimonies by a number of scientists and exposed the existence of the "Novichok." One of the scientists accidentally touched the material and died. Others followed.

Those who survived were prosecuted for speaking to Englund. A Russian banker and his secretary were killed after a small quantity of the material was spread on the handset of their telephones. The Russians insisted, however, as they are doing today, that they do not possess any such weapon. "We play by the rules," Kuntsevich said at the time.

In the 1990s, worrying information began arriving in Israel indicating that Russia was conducting experiments for the development of chemical weapons more advanced than the simple mustard and nerve gases that they once had.

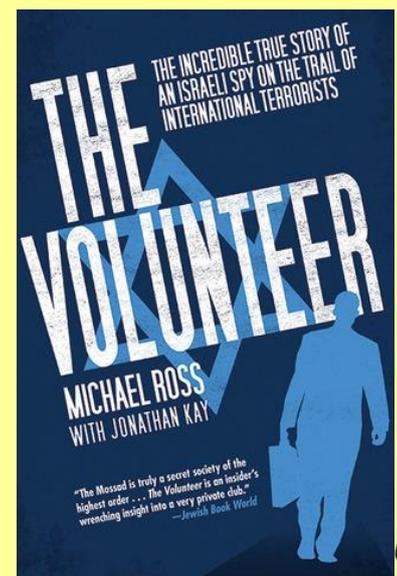
According to the information, the knowledge to produce the advanced weapons was supplied by Kuntsevich. It would seem that his business with the Syrians was not a government initiative but rather an attempt by him to look after his own interests.

In July 1995, under the guise of a regular work visit as part of the positive military relations that remained between the two countries, he began to establish personal connections with leaders in Syria, and received huge sums of money in exchange for divulging his knowledge and providing some of his equipment for developing deadly chemical weapons.

Some of the details of the deals reached the Israeli Mossad at the end of the 1990s. The Israeli prime minister at the time, Ehud Barak, tried to warn leaders in Moscow about their general's clandestine scheming but it was to no avail. It was believed that Yeltsin either could not, or did not want, to intervene.

In the book "**The Volunteer**", which was published in Canada by "Michael Ross", the author testifies that he was a Mossad agent and that when Israel realized that the pressure was not working, he was asked to pretend to be an independent researcher preparing to produce a documentary about gas warfare.

Ross claimed that he repeatedly contacted senior officials in the Kremlin and told them that according to the information in his possession, chemical weapons were being sold by



Kuntsevich to the Syrians. The intention was to scare Moscow since the information was soon to be publicized. But this effort too, failed to yield results.

Israel was furious. On 29 April, 2002, in circumstances that remain unknown, Kuntsevich died during a flight from Aleppo to Moscow. The Syrians appear to be confident that the Israeli intelligence had succeeded in reaching and poisoning the general.

A top secret CIA document from the same period says that Syria managed, by the time of his death, to produce a large stockpile of particularly lethal chemical weapons. According to various other sources, during his final visit to Syria, Kuntsevich brought with him the blueprints for developing the "Novichok". If Kuntsevich had not died on the way back to Moscow, the problems facing the West and particularly Israel could have been significantly more serious.

The chemical weapon that was produced as a result of Kuntsevich's activities, so the Syrians claimed, were to be disposed of at a later date as part of a deal brokered by the Russians, in order to prevent an American strike.

It was this deal that led to Russia's heavy military involvement in the Syria and transforming into a major influential power in the region.

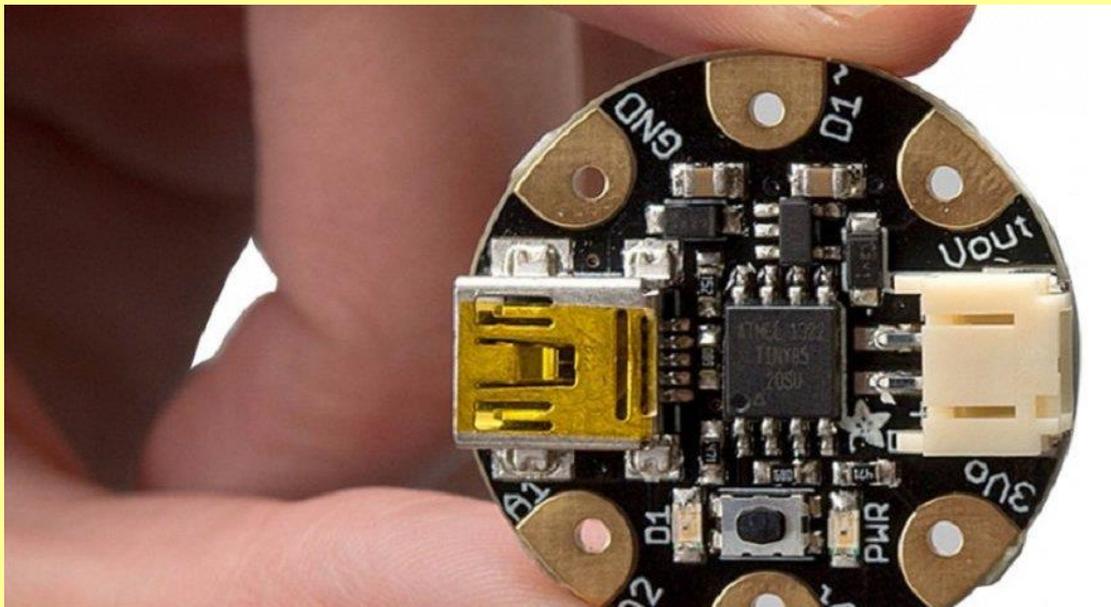
Dr. Ronen Bergman, a senior correspondent for military and intelligence affairs at Yedioth Ahronoth and a contributing writer for the New York Times, is the author of Rise and Kill First: The Secret History of Israel's Targeted Assassinations.



Future Forces to Use Compact Ring for Chemical Threat Detection

Source: <https://i-hls.com/archives/82013>

Mar 17 – The demand for compact, lightweight, and portable sensors having the capacity to connect to smartphones and laptops or computers is increasing. Among these are compact devices for the detection of chemical threats. A wearable sensor that detects external chemical and biological threats has been developed recently. It is designed as a ring, is light-weight and wirelessly connectable to smartphones and laptops.



The project was funded by the US Defense Threat Reduction Agency Joint Science and Technology Office for Chemical and Biological Defense have funded the project.



A team of researchers from the University of California, San Diego, led by Joseph Wang, has created a sensor and designed it as a ring wearable on a finger.



The ring consists of two parts, an electrochemical sensor cap for detecting chemical and biological threats, and a circuit board below the cap for processing and sending data wirelessly to a smartphone or laptop.

It is functional for voltammetric and chronoamperometric measurements, which allow the ring to detect a large area of chemical threats. The team introduced the sensor to explosives and organophosphate nerve agents. The ring was highly

functional and could detect the desired data in both forms – in vapor and liquid phases, reports coherentnews.com.

The developers believe that the device could detect or study other hazardous environmental or security agents at a later stage.

Various aspects of future forces technologies will be at the center of the coming Future Forces Conference and Exhibition organized by iHLS on May 9, 2018. The event that will be held at the Lago Conference Center, Rishon LeZion, will gather the ecosystem's leading defense industry representatives, experts from the armed forces, police and security services, entrepreneurs and investors.



Poisoning of Russian ex-spy puts spotlight on Moscow's secret military labs

By Joby Warrick

Source: https://www.washingtonpost.com/world/national-security/poisoning-of-russian-ex-spy-puts-spotlight-on-moscows-secret-military-labs/2018/03/18/9968efb6-2962-11e8-b79d-f3d931db7f68_story.html



The Center for Military Technical Problems of Biological Defense of the Scientific Research of Microbiology in Ekaterinburg, Russia, in 2015. The yellow boxes indicate areas that changed significantly since 2005. (Courtesy of Raymond Zilinskas/Center for Nonproliferation Studies)

Mar 18 – During his last run for the presidency, in 2012, Russian leader Vladimir Putin startled U.S. military experts with a mysterious pledge to develop novel kinds of weapons to



counter the West's technological edge. Armies of the future, he said, would need weapons "based on new physical principles" including "genetic" and "psychophysical" science.

"Such high-tech weapons systems will be comparable in effect to nuclear weapons," Putin said in an essay published in Rossiyskaya Gazeta, the Russian government's newspaper of record, "but will be more 'acceptable' in terms of political and military ideology."

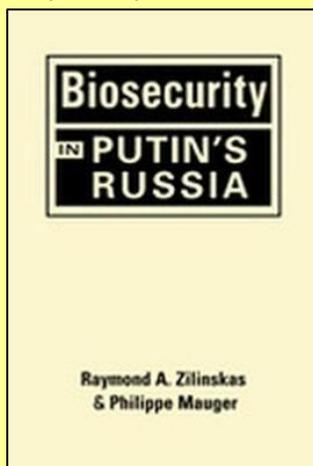
Exactly what Putin meant — and how any "genetic" weapon could square with international treaties outlawing chemical and biological warfare — remains uncertain. But what is now clear is that Putin's words unleashed a wave of activity across a complex of heavily guarded military and civilian laboratories in Russia.

Since the start of Putin's second term, a construction boom has been underway at more than two dozen institutes that were once part of the Soviet Union's biological and chemical weapons establishment, according to Russian documents and photos compiled by independent researchers. That expansion, which includes multiple new or refurbished testing facilities, is particularly apparent at secret Defense Ministry laboratories that have long drawn the suspicions of U.S. officials over possible arms-treaty violations.

In 1992, two Russian scientists approached The Post's Will Englund, then the Moscow correspondent for the Baltimore Sun, with news of a secret nerve agent. (Joyce Lee, Will Englund/The Washington Post)

Russian officials insist that the research in government-run labs is purely defensive and perfectly legal. But the effort has come under increased scrutiny in the wake of allegations of Moscow's involvement in the poisoning of a former Russian spy and his daughter in Britain. Both were sickened by [exposure to Novichok](#), a kind of highly lethal nerve agent uniquely developed by Russian military scientists years ago.

"The big question is, why are they doing this?" said Raymond Zilinskas, a chemical and biological weapons expert with the James Martin Center for Nonproliferation Studies in Monterey, Calif. In a newly released



book, "[Biosecurity in Putin's Russia](#)," Zilinskas and co-author Philippe Mauger analyze hundreds of contract documents and other records that show a surge in Russian research interest in subjects ranging from genetically modified pathogens to nonlethal chemical weapons used for crowd control.

The analysis also tracks a simultaneous rise in sensationalist Russian claims that the United States is itself pursuing offensive biological weapons. Reports posted on state-sponsored news sites and amplified over social media have accused U.S. scientists of being behind recent outbreaks of the Zika virus as well as the Ebola epidemic in West Africa that began in 2014. In each instance, U.S. federal agencies marshaled a sizable response to counter or contain the outbreaks.

Such baseless claims could be viewed as part of a deliberate effort to "explain to their own people why they need to do this research," Zilinskas said in an interview.

A spokeswoman for Russia's Ministry of Foreign Affairs declined to answer written questions but forwarded a March 13 statement by Vassily A. Nebenzia, Russia's ambassador to the United Nations. Nebenzia denied any involvement by the Kremlin in the March 4 nerve-agent attack and suggested that it was the United States and Britain, not Russia, that were continuing to conduct illegal research to create "new toxic substances."

The research by Zilinskas and Mauger appears to bear out long-held concerns by the State Department, which has sharply criticized Russia in recent years over a lack of transparency in its military-related biological and chemical research. Since 2012, State Department officials have issued a series of reports faulting Moscow for refusing to open its military research laboratories to outside inspectors, and for failing to provide proof that it destroyed the highly lethal arsenals created by Red Army scientists in the years before the Soviet Union's collapse.

Thomas Countryman, an assistant secretary of state for international security and arms control during the Obama administration, said that even before Putin, U.S. officials questioned whether the Kremlin had owned up to its past "fully and transparently." But over



the past six years, official distrust has grown as Moscow has embraced a more aggressive foreign policy that includes intimidation of Russia's neighbors and an unabashed support for a Syrian dictator who uses nerve agents to kill his own people.

"Moscow's full-throated defense of [Syrian use of chemical weapons](#) — and, especially, its apparent use of chemical agents in targeted assassinations — only add to the concerns," Countryman said.

Cold War pathogens

When the Soviet Union was dismantled in 1991, the Russian Federation became the heir to history's most dangerous arsenal of chemical and biological weapons.

During the Cold War, Soviet leaders spent vast sums to create weaponized versions of 11 different pathogens — including the microbes that cause anthrax, smallpox and the plague — while also experimenting with genetically altered strains. They created new classes of chemical toxins, such as Novichok, reportedly used in the attempted assassination of former Russian spy Sergei Skripal and his daughter, Yulia, in Salisbury, England.

A fourth-generation nerve agent more deadly than VX, Novichok is the stuff of legend. Russia denies that it ever researched or manufactured such nerve agents, but it arrested a [former Soviet weapons scientist](#) on charges of divulging state secrets after he published details about Soviet Novichok production in newspaper articles and a memoir.

The Soviet program was motivated in part by competition with the United States. Washington maintained its own stockpile of nerve agents during the Cold War and manufactured biological weapons until 1969, when President Richard M. Nixon dismantled the program. But the Kremlin pressed ahead, convinced that the Pentagon was continuing bioweapons research in secret. Finally, in 1992, newly installed Russian President Boris Yeltsin acknowledged the existence of the secret program to U.S. officials and reported that all Soviet bioweapons had been destroyed.

In the years immediately following the Cold War, securing and dismantling Soviet weapons of mass destruction united Americans and Russians in [a common cause](#). The United States helped Russia build incinerators for destroying its chemical weapons, and it sponsored programs that paired former Soviet bioweapons scientists with Western companies to keep them employed during the country's economic transition.

Such U.S.-Russian technical cooperation began to wane after Putin's election as president, and it collapsed after the Russian strongman won a second term in 2012. Yet, even during the Yeltsin years, Russia refused to grant access to key weapons sites, including four biodefense laboratories run by the Russian military and perpetually sealed off from outside visitors, former U.S. officials said.

"We were always curious: Were they embarrassed to let us in because of the shape of their labs? Or were they hiding something?" said Laura Holgate, a senior adviser to President Barack Obama on preventing biological, chemical and nuclear terrorism.

Holgate allowed that Russia's reluctance also may have reflected a "paranoia about what the U.S. might be learning" about the country's military capabilities. In any case, she said, it became clear over time that Putin intended to preserve some Soviet-era capabilities for use in very specific situations. One of these was assassination — the killing of the Kremlin's opponents using methods that were dramatic, yet allowed Moscow to plausibly deny culpability. Another was crowd control: the use of controversial "knockout" chemicals to incapacitate individuals involved in hostage standoffs and other mass disturbances.

Officials familiar with Russia's program said the expanded activity at military labs may be partly aimed at honing those capabilities, giving Putin a variety of tools for dealing with adversaries while seeking to avoid the most flagrant violations of Russia's treaty obligations.

Whatever the explanation, the buildup is striking. Data collected by Zilinskas and Mauger includes contract documents, Russian-language reports and aerial imagery that shed light on a dramatic expansion at the four secret Defense Ministry laboratories and numerous government-run civilian research centers across the country.

At one military complex at Yekaterinburg — the scene of an [accidental release](#) of anthrax spores in 1979 that is said to have killed 100 workers and townspeople — satellite images show clusters of newly built, warehouse-size industrial buildings dotting a walled



campus. Renovations can be observed in older buildings that in Soviet times were factories for mass-producing *bacillus anthracis*, the bacteria that causes anthrax.



At the **33rd Central Research Test Institute at Shikhan'ye** (map) — formerly a “closed” Russian military city on the Volga River in southwest Russia — records point to a recent spending spree for specialized equipment such as freeze-drying machines used in microbial production. Lab officials are shown soliciting bids for repairs to a wind tunnel, the type used in testing aerosolized bacteria and viruses, as well as upgrades to an area of bermed storage pens that the researchers say are probably intended for open-air testing involving explosives.

Wind tunnels and outdoor testing facilities can be used legitimately to develop defenses against biological and chemical attacks. Indeed, the Pentagon employs similar equipment at its biodefense research facilities in Maryland and Utah. But Zilinskas and Mauger say the Russian expansion invites a higher level of scrutiny in light of the explicit calls by Russian leaders for work on novel kinds of weapons, including “genetic” ones.

After Putin’s essay in 2012, several senior military officials, including the defense minister at the time, Anatoly Serdyukov, publicly endorsed Putin’s appeal for new kinds of weapons and promised to start building them, the researchers note. Serdyukov specifically pledged to incorporate “genetic” research in creating Russia’s next-generation arsenals.

“We noted the numerous high-level calls for the development of biotechnology-based weapons in Russia, without further specification,” Zilinskas and Mauger write. At minimum, the vagueness of such statements potentially opens the door for any military official or “ambitious scientist” to lobby for a chance to develop a new kind of weapon — with the implicit blessing of top Russian officials, they write.

“When taken in conjunction with the [military’s] apparent support for the development of ‘genetic’ weapons, these statements erode normative barriers toward biological weapons in Russia,” the authors say.

Joby Warrick joined The Washington Post’s National staff in 1996. He has covered national security, the environment and the Middle East and writes about terrorism. He is the author of two books, including 2015’s “Black Flags: The Rise of ISIS,” which was awarded a 2016 Pulitzer Prize for nonfiction.

Novichok in a Suitcase

Source: <https://www.globalresearch.ca/novichok-in-a-suitcase/5632480>



It is highly unlikely that the nerve agent, which was used to poison former Russian spy Sergei Skripal and his daughter Yulia in Salisbury on March 4, arrived in the UK from Russia in Yulia Skripal’s suitcase, experts believe. Yulia Skripal arrived from Russia on March 3, and she and her father lost consciousness the following day.

Mar 18 – If there were a chemical agent in the suitcase, the two people would not be well for a whole day, Anton Utkin, an expert in chemical weapons, formerly a UN inspector to Iraq, told RBC. They would have fainted at home, right next to her suitcase. Yet, the two people were found unconscious in a park. To crown it all, a police officer, who did not inspect Yulia’s suitcase, was exposed to the poison as well, the expert said.

Former member of the UN Commission on Biological and Chemical Weapons Igor Nikulin also believes that the version about a container with Novichok nerve gas planted in the suitcase does not hold water.



“Traces were found in the suitcase, as well as in several institutions in Salisbury, that is, if the container had been planted there, it should have given a leak, which looks implausible,” he told RBC.

According to the expert, Novichok nerve gas has a specific smell and yellowish color, and it is impossible not to notice it.

“The only option is to transport the substance in a container or an activation device, when the ampoule could break inside to trigger the reaction. Yet, as long as Novichok was never in service, there are no precedents for the transportation of the substance, so no one has ever produced any carriers for it,” Nikulin said.

The experts also pointed out that Novichok could be synthesized not only in Russia. According to Nikulin, US special services could synthesize the poison formula successfully. During the 1990s, US special services disposed of an object near the city of Nukus in Uzbekistan, where the substance was synthesized. Technically, they could obtain samples, technological regulations and equipment.

According to Anton Utkin, any experienced chemist who has necessary reagents can synthesize this substance.

Earlier, *The Telegraph* wrote with reference to sources in British special services that the nerve agent, which poisoned Sergei Skripal, arrived in the UK in his daughter’s suitcase unbeknownst to her. It is believed that malefactors could break into Yulia’s apartment in Moscow and plant the nerve gas into her belongings. British investigators do not believe that the perpetrators, who conducted the [chemical attack in Britain](#), delivered the nerve agent to the country on their own. It was also said that police officer Nick Bailey could have been exposed to poison in Sergei Skripal’s home, rather than on the site where he was found with his daughter.

Sergei Skripal and his daughter were poisoned on March 4. They remain in critical condition.

Porton Down – A Gruesome Secretive Past. Britain’s Chemical Weapons Facility

Source: <https://www.globalresearch.ca/porton-down-a-gruesome-secretive-past-britains-chemical-weapons-facility/5632400>



Mar 16 – It is home to two UK Government facilities: a site of the Ministry of Defence’s Defence Science and Technology Laboratory (Dstl) – known for over 100 years as one of the UK’s most secretive and controversial military research facilities, occupying 7,000 acres

The laboratory’s remit was to conduct research and development regarding chemical weapons agents used by the British armed forces in the First World War, such as chlorine,

mustard gas, and phosgene.

When the Second World War ended, the advanced state of German technology regarding the organophosphorous nerve agents, such as tabun, sarin and soman, had surprised the Allies, who were eager to capitalise on it. Subsequent research took the newly



discovered German nerve agents as a starting point, and eventually VX nerve agent was developed at Porton Down in 1952.

In the late 1940s and early 1950s, research and development at Porton Down was aimed at providing Britain with the means to arm itself with a modern nerve agent-based capability and to develop specific means of defence against these agents. Tests were carried out on servicemen to determine the effects of nerve agents on human subjects, with persistent allegations of unethical human experimentation at Porton Down.

In 1942, [Gruinard Island](#), Scotland, was dangerously contaminated with anthrax after a cloud of anthrax spores was deliberately released over the island during a trial.

“From 1945 to 1989, Porton exposed thousands of human “guinea pigs” to nerve gas. It seems probable that Porton has tested more human subjects with nerve gas, for the longest period of time, than any other scientific establishment in the world” – reported [The Guardian](#) in 2004.

Two other nations have admitted testing nerve gas on humans, but nowhere on the scale the Britain has: the American military exposed about 1,100 soldiers between 1945 and 1975, and Canada tested a small number before 1968.

Nerve agent was placed in former spy’s BMW ventilation system: U.S. intel

Source: <http://www.homelandsecuritynewswire.com/dr20180319-nerve-agent-was-placed-in-former-spy-s-bmw-ventilation-system-u-s-intel>



Mar 19 – The former Russian spy Sergei Skripal and his daughter, Yulia, may have been exposed to a deadly nerve agent through his car’s ventilation system, ABC News [reports](#).



The two remain in critical condition in hospital after being exposed to the nerve agent novichok in Salisbury, in the U.K., two weeks ago.



ABC News reported that intelligence officials had said the “dusty” substance used was likely placed in the ventilation system of the BMW Skripal was driving.

The development comes as counterterrorism police renewed their appeal for sightings of Skripal's burgundy BMW 320D saloon car, registration HD09 WAO, in Salisbury on the morning of 4 March.

Neil Basu, a Metropolitan police assistant commissioner, said: “We are learning more about Sergei and Yulia's movements but we need to be clearer around their exact movements on the morning of the incident.” Scotland Yard and other British security agencies would not comment on the ABC News report. ABC also reported that intelligence officials had said that up to thirty-eight individuals in Salisbury had



been having been affected by the nerve agent, but that the full impact was still under investigation and that more victims were expected to be identified.



ABC News notes that this is not the first time U.S. media outlets have offered updates from American intelligence officials about terrorism incidents in the United Kingdom. This practice has not been welcomed by the British authorities, which temporarily suspended intelligence sharing with the United States in the wake of U.S. media reports, based on U.S. intelligence leaks, which followed the Manchester Arena bombing in May 2017.

On Sunday, the *Sun on Sunday* reported that Yulia Skripal's boyfriend was an active Russian secret service agent. The newspaper reported that she had worked in the U.S. embassy in Moscow.



Between 1963 and 1975 the MRE carried out [trials in Lyme Bay](#), Dorset, in which live bacteria were sprayed from a ship to be carried ashore by the wind to simulate an anthrax attack. The bacteria sprayed were the less dangerous *Bacillus globigii* and *Escherichia coli*, but it was later admitted that the bacteria adversely affected some vulnerable people. The town of [Weymouth](#) lay downwind of the spraying. When the trials became public knowledge in the late 1990s, Dorset County Council, Weymouth and Portland Borough Council and Purbeck District Council demanded a Public Inquiry to investigate the experiments. The

Government refused.

During the same time period Porton Down were [investigated](#) for another 25 deaths that surrounded the use of injecting anthrax, smallpox, polio and bubonic plague into unsuspecting volunteers. For 30 years the government refused any inquiries.

Porton Down has been involved in human testing at various points throughout the Ministry of Defence's use of the site. Up to 20,000 people took part in various trials from 1949 up to 1989.

From 1999 until 2006, it was investigated under [Operation Antler](#). In 2002 a first inquest and ([source](#)) in May 2004, a second inquest into the death of [Ronald Maddison](#) during testing of the nerve agent sarin commenced after his relatives and their supporters had lobbied for many years, which found his death to have been unlawful.



Ronald Maddison was 20 when he took part in what he allegedly thought was an experiment to find a cure for the common cold in May 1953. The leading aircraftman died minutes later and the original inquest – held in private for “reasons of national security” – ruled he died of asphyxia but his fellow servicemen claim he had been exposed to the deadly nerve agent Sarin at the government's chemical and biological warfare centre in Wiltshire

Most of the work carried out at Porton Down has to date remained secret. **Bruce George**, Member of Parliament and Chairman of the Defence Select Committee, told BBC News on 20 August 1999 that:

“I would not say that the Defence Committee is micro-managing either DERA or Porton Down. We visit it, but, with eleven members of Parliament and five staff covering a labyrinthine department like the Ministry of Defence and the Armed Forces, it would be quite erroneous of me and misleading for me to say that we know everything that's going on in



Porton Down. It's too big for us to know, and secondly, there are many things happening there that I'm not even certain Ministers are fully aware of, let alone Parliamentarians."

Different departments at Porton Down use animal experiments in different ways. The Biomedical Sciences department is involved with drug evaluation and efficacy testing including toxicology, pharmacology, physiology, behavioural science, human science, trauma and surgery studies. The Physical Sciences department also uses animals in its 'Armour Physics' research.

Like other aspects of research at Porton Down, precise details of animal experiments are generally kept secret. Media reports have suggested they include exposing monkeys to anthrax, draining the blood of pigs and injecting them with *E. coli* bacteria, and exposing animals to a variety of lethal, toxic nerve agents.

In a separate case in 2000, it was [reported](#) that Police were investigating chemical warfare tests at Porton Down and were examining at least 45 deaths. There is no further information as to the outcome of these investigations.

Hundreds of veterans who were subjected to tests at the Porton Down chemical warfare installation were [awarded compensation](#) totalling £3m, the defence minister, **Derek Twigg**, announced back in January 2008.

In a written statement to MPs, Twigg offered the government's first full apology to the servicemen, saying: "The government sincerely apologises to those who may have been affected."

The award was welcomed by representatives of the veterans, who say they were tricked into taking part in tests at the Wiltshire facility during the cold war. Many believed they were helping to find a cure for the common cold.

A group of 369 servicemen affected launched legal action against the MoD last March, arguing that tests – including being sent to gas chambers **and being exposed to nerve gas**, mustard gas and teargas – had left them with health problems ranging from respiratory and skin diseases to cancer and psychological problems.

Eric Gow, chairman of the Porton Down Veterans' Group, said: "I am just so very sorry and angry that many of our comrades had to die before we reached this point – but I am sure they will be looking down on us today with some degree of satisfaction."

Just six months ago, Animal-rights campaigners reacted with fury and shock after it [emerged](#) the Government's warfare laboratory tested on almost three times more monkeys than the previous year. Freedom of Information requests found that 2,745 animals – including macaque monkeys, pigs and marmosets – were housed there.

40 Tons Of Chemical Weapons Found In Areas Liberated From Militants In Syria

Source: <https://southfront.org/40-tons-of-chemical-weapons-found-in-areas-liberated-from-militants-in-syria/>



Mar 21 – Chemical weapon production facilities and 40 tons of poisonous substances have been found in areas liberated from militants in Syria.

"The Syrian Foreign Ministry pointed out that more than 40 tons of poisonous substances were found on the territories, liberated from terrorists," Igor Kirillov, the commander of Russia's Nuclear, Biological and Chemical Protection Forces, said on March 21.

Kirillov made his comment during a press conference in Moscow concerning the poisoning of former Russian double agent Sergei Skripal. The U.K. and some Western states accuse Russia of being behind the incident.

Kirillov recalled the case of Khan Shaykhun (Syria) and said that said the UK and Western states are prepared to use any means necessary to discredit Russia.





The alleged chemical attack in Khan Shaykhun took place on April 4, 2017 in an area controlled by militant groups, mostly Hayat Tahrir al-Sham (formerly Jabhat al-Nusra, the Syrian branch of al-Qaeda). Up to 100 civilians were allegedly killed by sarin gas. The US-led block accused Damascus of the attack [according to this version, the gas was released in an airstrike by government forces] and fired 59



Tomahawk cruise missiles at the Shayrat Airbase. Washington claimed that the Shayrat Airbase had been the very compound from which jets allegedly armed with the chemical took off.

Meanwhile, no real investigation of the Khan Shaykhun incident took place. Some experts believe that the chemical attack was staged by militants in order to blame the Syrian government.



Is Britain being played over the Russian nerve agent assassination?

By Jeff Charlton

Source: <https://www.linkedin.com/groups/1989189/1989189-6380419049771401218>

The supposed assassination attempt a former Russian spy (traitor) in Britain is full of dubious issues. The covert assignment was undertaken with a signature nerve agent (Novichok) which immediately (well 7 days) led directly back to the Russian developers.

Why undertake a covert assignment and leave a visiting card?



Nariman Panahian This is in reference to the recent revelations of the BMW 320 series ventilation system being the source of a chemical agent contamination..One would need to open the hood, remove some 8 bolts that hold down the plastic cabin filter cover, take out the cabin filter, spray on it this "whatever" and then put it back in place. What happens is that such a filter (e.g. Mann) is high quality and made like a HEPA filter & has carbon particles embedded in it that absorb all allergens including the "whatever" and hold it in place for MI-5/MI-6 people to find. So to make the long story short, it seems to be a one big contaminated crime scene. Both victims after exposure to the deadly, highly potent agent, x4-8 times more potent than VX, manage to walk around for about 2 hrs+ post-exposure, when their condition suddenly deteriorates. Not sure if their health status was recently reported to the public. **Show less**

Unlike | You + 1

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Mark Wheatley I agree that if the intention was to eliminate an individual there are 101 ways of doing it without raising suspicion reaching such international proportions, a heavy handed mugging, a hit and run, a household accident - along with a plethora of other opportunities! For instance only recently there were hemlock roots washed up on my local beach - a commonly available poison, and the poisons in hemlock are so deadly that people have died after only eating game birds that had eaten hemlock seeds! So why indeed would an assailant leave such a discreet calling card? Whoever was responsible clearly wanted to cause an international incident - and so far it has been very effective! **Show less**

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... 16h

The UK prime minister assured us that Russia was responsible because they developed it. But the actual chemist who developed it defected to USA where he's lived since 1996. This other Russian traitor sold his country out and I have to wonder if he sold formulae to any willing purchaser?

The Chemical Weapons Convention reasonably requires evidence of suspected breach in rules like the Salisbury event to be collaborated with actual evidence and distributed to all parties. Quite reasonably Russia asked for a sample to see if they could identify it. The request was remarkably refused.

So we have the accused Russians not being given evidence

of the charges so how can or could they defend themselves and how does that make the UK look? I'm sure Russia when they do see a sample will say it's not ours, but at least that can result in a legal scientific challenge.



Most interestingly with Putin standing election he might have chosen a better moment to bring down the wrath of the world. He is publically ignoring the issue and is obviously embarrassed which appears to be a little unusual for him.

The biggest puzzle is that Novichok, which is recognised as one of the world's most potent of nerve agents which so far is said to have affected over 700 people, various restaurants, graveyards, vehicles and yet the two people exposed to the greatest concentration (Russians) are still alive??? Is this odd?

Jeff Charlton is Technical Director at Building Forensics .co.uk

Forty Hospitalized, Nobody Intoxicated: Who Has Access to A-234 Nerve Agent

Source: <https://sputniknews.com/analysis/201803221062808150-uk-russia-nerve-agent-skripal/>

Mar 22 – Britain's Skripal case evokes strong memories of Colin Powell's narrative of Saddam Hussein's developing weapons of mass destruction, Sputnik contributor Daniele Pozzati writes, stressing that in contrast to the US and the UK, Russia completely destroyed its chemical arms stockpiles.

No one among dozens of patients who went to a Salisbury hospital after the poisoning of former spy Sergei Skripal and his daughter Yulia has experienced similar symptoms, independent journalist Daniele Pozzati highlighted in his [op-ed](#) for Sputnik, citing Consultant in Emergency Medicine, Salisbury NHS Foundation Trust Stephen Davies' letter.

On March 14, The Sun [reported](#) that "nearly 40 people [had] experienced symptoms related to the Salisbury nerve agent poisoning." The doctor rushed to deny the claim, stressing in his open letter that there have been only three patients with significant poisoning, namely Sergei and Yulia Skripal and Detective Sergeant Nick Bailey.

"Several people have attended the emergency department concerned that they may have been exposed. None had symptoms of poisoning and none has needed treatment. Any blood tests performed have shown no abnormality. No member of the public has been contaminated by the agent involved," Davies' letter [reads](#).

On March 22, news emerged that a second policeman involved in the Skripal probe [has shown potential signs of poisoning](#). However, it was reported that the signs are not on the same scale as those of the Skripals and Bailey, who is now stable. For their part, the Skripals remain in critical condition in hospital.

Last week British Prime Minister Theresa May accused Russia of using the A-234 nerve agent in an attempt to kill former spy Sergei Skripal and his daughter Yulia. However, London refused to present samples of the poisonous substance to Russia as well as evidence found during the investigation.

Pozzati pointed out that according to the Convention on the Prohibition of Chemical Weapons, the UK ought to provide Russia with the nerve agent used to poison Skripal and give Russia 10 days to respond. Nevertheless, May didn't provide any evidence to Moscow and gave it just 24 hours to react to London's ultimatum.

The independent journalist cited Hamish de Bretton-Gordon, who claimed in an [interview](#) to The Guardian that the Russian city of Shikhany "was the sole location for development and production" of the A-234 nerve agent.

Pozzati highlighted that although Bretton-Gordon dismissed the assumption that the poisonous substance could be produced in other states of the post-Soviet space, a 1999 report by The New York Times [revealed](#) that the US took part in an effort to [decontaminate the Chemical Research Institute in Nukus, Uzbekistan](#).

The media outlet noted, citing Soviet defectors and American officials, that "the Nukus plant was a major research and testing site for a new class of secret, highly lethal chemical weapons," A-234.

Thus, since 1999 the US has had access to gas, Pozzati stressed, adding that for its part Russia



completed the destruction of its arsenal of chemical weapons on September 27, 2017. Commenting on Russia's move, head of the Organization for the Prohibition of Chemical Weapons (OPCW), Ahmet Uzumcu, stated: "The completion of the verified destruction of Russia's chemical weapons program is a major milestone in the achievement of the goals of the Chemical Weapons Convention."

"In contrast, both the United States and the United Kingdom still have a chemical weapons program," Pozzati highlighted. "The American [chemical weapons] project will be dismantled only in the next five years. In the light of Dr. Davis's statements, we can face yet another fake a-la Colin Powell's narrative about the chemical weapons of Saddam Hussein."

On March 4, the British police found former intelligence agent Sergei Skripal, 66, and his daughter Yulia, 33, unconscious near a shopping center in Salisbury. Following the alleged nerve gas attack, the British government pointed the finger of blame at Moscow despite the investigation into the Skripal case having not been completed. British PM May initiated the expulsion of 23 Russian diplomats which triggered a mirror response by Russia.

On March 19, experts from the Organization for the Prohibition of Chemical Weapons (OPCW) got [the samples of the poisonous substance](#) used in a supposed attack against the Skripals. According to the OPCW, it will take at least three weeks to study the nerve agent provided by the British authorities.

US blacklists mystery French chemical terrorist

Source: https://www.expatica.com/fr/news/country-news/US-France-chemical-attacks-Syria_1770732.html

Mar 22 – **The United States on Thursday identified a Frenchman it says provided chemical weapons to the Islamic State group and whose name, previously unreported, came as a surprise to French experts.**

US officials described as being born in the Cannes region of southern France between 1986 and 1988 and as "a senior chemical weapons expert" for the IS group in Syria.

He has now been listed as a "Specially Designated Global Terrorist," placing him under US sanctions with notorious militants that Washington believes pose a threat outside their immediate battlefield.

But they provided few details and French officials and experts alike said they had never heard the name of a suspect who does not appear to have attracted the attention of Paris authorities.

"Asperman oversaw chemical operations production within Syria for ISIS and the deployment of these chemical weapons at the battlefield," the US State Department said, announcing the designation.

Along with Bashar al-Assad's Damascus regime, the Islamic State group has also been accused of deploying chemical attacks in Syria, where it is one of the factions in the long-running civil war.

Although hundreds of French fighters are known to have travelled to the Middle East to fight with

jihadi groups -- and Cannes has been a French recruiting ground -- Asperman's name was not widely known.

Several French experts, including Jean-Charles Brisard of the Center for the Analysis of Terrorism, confirmed to AFP the name had not previously been known as a suspect.

And on Twitter, former French intelligence officer Claude Moniquet, now of the European Strategic Intelligence and Security Center, said it had "never, until today, circulated publicly."

Several other French suspects have been placed on the US "global terrorist" list, including bomb-maker Ahmad Alkhalid, jihadist recruiter Omar Diaby and alleged IS executioner Maxime Hauchard.

US citizens and residents are forbidden from doing business with SDGTs, and any assets they hold in areas under US jurisdiction are forfeit.

The designation also serves as a warning to law enforcement worldwide to be on the look-out for the suspects, and is a sign that US intelligence deems the individual or group an important target.

"This designation seeks to deny Asperman the resources he needs to plan and carry out further terrorist attacks," the statement said.

But US officials told AFP that they could reveal no more information



about the mysterious Asperman, and it was not clear whether the designation would have any immediate impact on his operations.

In addition to Asperman, the State Department also designated the Katibat al-Imam al-Bukhari, an armed group it describes as an Al Qaeda ally and "the largest Uzbek fighting force in Syria."

U.S., EU states expel dozens of Russian diplomats over nerve agent poisoning

Source: <http://www.homelandsecuritynewswire.com/dr20180326-u-s-eu-states-expel-dozens-of-russian-diplomats-over-nerve-agent-poisoning>

Mar 26 – **President Donald Trump has ordered the expulsion of sixty Russian “intelligence officers” in response to the poisoning of a former Russian double agent in England, while fourteen European Union members and Ukraine also announced expulsions.**

The nearly simultaneous announcements on 26 March signaled a united front in the face of what Britain and other Western countries say was the use of a military-grade nerve toxin against Sergei Skripal and his daughter, Yulia Skripal, in the English city of Salisbury.

Trump “ordered the expulsion of dozens of Russian intelligence officers from the United States and the closure of the Russian consulate in Seattle due to its proximity to one of our submarine bases and [plane maker] Boeing,” a White House spokesperson said.

“The United States takes this action in conjunction with our NATO allies and partners around the world in response to Russia’s use of a military-grade chemical weapon on the soil of the United Kingdom, the latest in its ongoing pattern of destabilizing activities around the world,” it said.

The U.S. order includes twelve Russian intelligence officers from Moscow’s UN mission in New York, senior administration officials told reporters on condition of anonymity.

Other countries expelling Russian diplomats included the Czech Republic, Denmark, France, Germany, Latvia, Lithuania, the Netherlands, and Poland.

European Council President Donald Tusk said that fourteen countries were expelling Russians and that further measures could not be ruled out.

Ukraine, which is not an EU member, said it would expel thirteen Russian diplomats.

Sergei and Yulia Skripal were found unconscious on a bench in Salisbury on 4 March. They remain in critical condition.

Analysts note that, taken together, the expulsions were an unusually wide-ranging expression of solidarity against Russia following the attack. The E.U. and the United States also coordinated economic sanctions against Russia after the Kremlin annexed Ukraine’s Crimean Peninsula in 2014, but subsequent actions have been more piecemeal.

In a statement, White House press secretary Sarah Huckabee Sanders said the attack was “the latest in [Russia’s] ongoing pattern of destabilizing activities around the world.”

“Today’s actions make the United States safer by reducing Russia’s ability to spy on Americans and to conduct covert operations that threaten America’s national security,” Sanders said. “With these steps, the United States and our allies and partners make clear to Russia that its actions have consequences.”

State Department spokeswoman Heather Nauert said in a statement, “We take these actions to demonstrate our unbreakable solidarity with the United Kingdom, and to impose serious consequences on Russia for its continued violations of international norms.”

The *Washington Post* [quotes](#) an administration official who said: To the Russian government, we say, when you attack our friend you will face serious consequences,” said a senior Trump administration official, who briefed reporters on the condition of anonymity.

“As we have continually stressed to Moscow, the door to dialogue is open,” the official added. But Russia must “cease its recklessly aggressive behavior.”

The actions taken today stands in contrast to Trump’s refusal, at least so far, to criticize Putin or Russia for Russian efforts to undermine U.S. democracy, and Russian policies which harm U.S. interests.



Angela Stent, a former national intelligence officer who focused on Russia in the George W. Bush administration, told the *Post* that the U.S. move contrasts markedly with Trump's efforts to improve relations with Moscow.

"These expulsions and closure of the consulate reinforce the reality of a relationship that continues on a downward spiral," Stent said. "The Kremlin will surely retaliate, leaving even fewer areas where the United States and Russia can work together. What a change from the president's congratulatory call to Vladimir Putin last week."

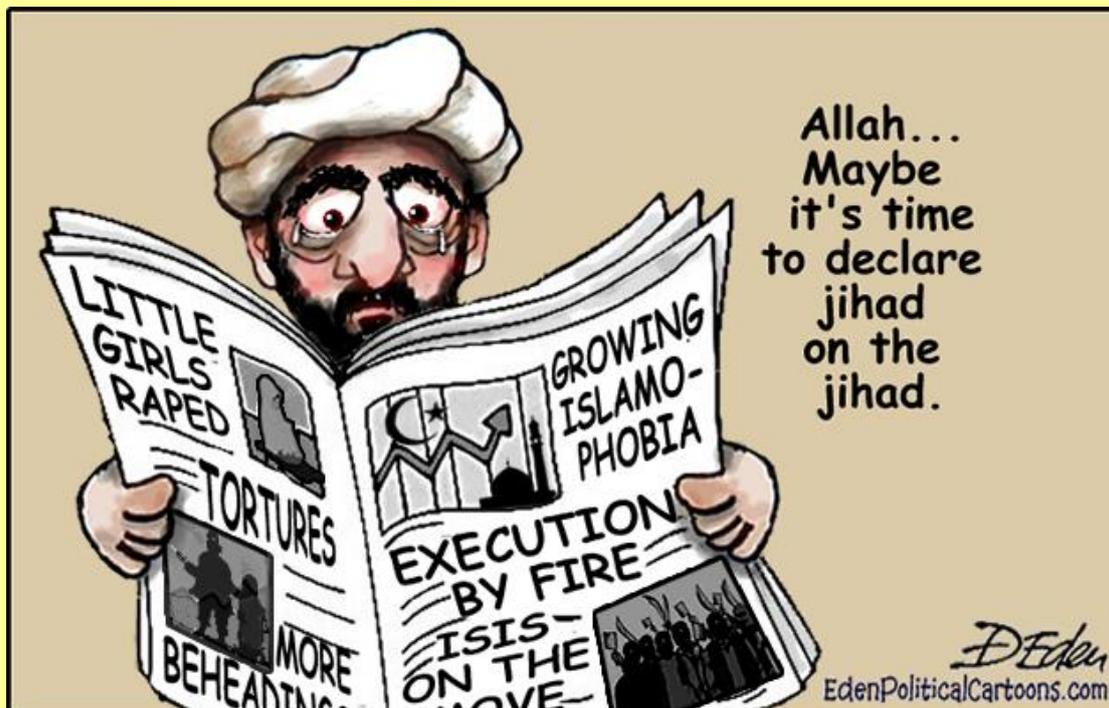
Michael Sulick, a former head of the CIA's National Clandestine Service and a former Moscow station chief, told the *Post* that "They'll certainly retaliate. The Russians live by strict reciprocity. It's tit for tat all the time."

The only time Russia did not retaliate, Sulick noted, was in December 2016, when Obama ordered the expulsion of thirty-five Russian diplomats as punishment for Russian meddling the election. Russia did not retaliate because Michael Flynn, in calls with Russian ambassador Sergey Kislyak – calls about which Flynn lied both the Vice President Michael Pence and the FBI – told the ambassador that if Russia refrained from retaliating, it would make it easier for the incoming Trump administration to lift the economic sanctions imposed on Russia because of its annexation of Crimea and its involvement in the war in Ukraine.

Sulick said that Putting would regard the expulsions of intelligence officers as a temporary setback. If it were up to him, Sulick told the *Post*, he'd be taking more aggressive actions, such as revealing "financial information that would embarrass Putin on the world stage," or other actions that would "really cut into him" economically.

"The Russians only understand one thing — when the boot is on their neck, and you keep pressing down," Sulick said.

EDITOR'S COMMENT: I totally disagree since I think that Peru is responsible for the assassination of the Russian ex spy and his daughter! Why Peru? Where are the evidence and proofs? They are in the same place where evidence and proofs are for the alleged Russian involvement. As far as I know we are still waiting for the lab results from OPCW. Irresponsible pons in the international chessboard trying to keep the queen happy rather than safe.



ICI
International
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BIO NEWS



Flu forecasting system tracks geographic spread of disease

Source: <https://www.sciencedaily.com/releases/2018/02/180226152618.htm>

Feb 26 – Scientists at Columbia University's Mailman School of Public Health developed a system to accurately predict the geographic spread of seasonal influenza in the United States, as reported in a paper published in the journal *PNAS*.

For the public, the flu forecast may promote greater vaccination, the exercise of care around people sneezing and coughing, and a better awareness of personal health. For health officials, it could inform decisions on how to stockpile and distribute vaccines and antiviral drugs, and in the case of a virulent outbreak, whether other measures, like closing schools, are necessary.

In a retrospective test for the 2008-2009 through 2012-2013 influenza seasons in 35 states, the Mailman School researchers found their forecasting system accurately predicted local onset of flu six weeks ahead of time. **Compared to the previous version of the system, the new version improved forecasting accuracy with regard to onset, by 35 percent; peak timing, by 31 percent; and intensity, by 13 percent.** Similar improvements were seen at the county level in a test using data from Virginia.

The researchers expect to use the system in their online forecasts for the 2018-19 flu season. Currently, it is being employed as one of the Mailman School entries in the 2017-18 Center for Disease Control and Prevention flu forecast

challenge, which the research team previously won outright in 2014 and tied for first in 2015 and 2017.

"The system could also be adapted for use with other respiratory viruses, and with some modification, for infectious diseases more broadly," says lead author Sen Pei, a postdoctoral scientist in Environmental Health Sciences at Columbia's Mailman School of Public Health.

The forecasting system employs techniques used in modern weather prediction to generate local forecasts. It starts with data from the Department of Defense on local incidence of influenza-like illness combined with laboratory-verified cases of influenza and adds a spatial element by incorporating information from Census data on commuting patterns. The system accounts for differences in population location between day and night and irregular travel such as for business trips and vacations.

"Influenza, like many infectious diseases, is spread from person-to-person and as people move from place to place," says Jeffrey Shaman, the study's senior author and associate professor of Environmental Health Sciences at the Mailman School. "By assimilating information on commuting patterns, we've taken a big step forward and improved our ability to accurately forecast where the flu might crop up next."

Article: *Sen Pei, Sasikiran Kandula, Wan Yang, Jeffrey Shaman. Forecasting the spatial transmission of influenza in the United States. Proceedings of the National Academy of Sciences, 2018; 201708856 DOI: [10.1073/pnas.1708856115](https://doi.org/10.1073/pnas.1708856115)*

European health worries: High levels of drug resistance in zoonotic bacteria

Source: <http://www.homelandsecuritynewswire.com/dr20180228-european-health-worries-high-levels-of-drug-resistance-in-zoonotic-bacteria>

Feb 28 – A surveillance report from European health and food safety agencies indicates that antibiotic resistance in zoonotic bacteria from humans, food, and animals on the continent remains at high levels, with notable levels of multidrug resistance in two common causes of foodborne illness in humans.

The report is based on 2016 data provided by 28 EU member states and jointly analyzed by the European Centre for Disease Prevention and Control (ECDC) and the European Food Safety Authority (EFSA). It addresses resistance in bacterial isolates of zoonotic *Salmonella*



and *Campylobacter* from humans, food, and poultry, along with resistance levels and mechanisms in indicator *Escherichia coli* and methicillin-resistant *Staphylococcus aureus* (MRSA) in animals and food. Zoonotic bacteria are organisms that are transmissible between animals and humans, either through direct exposure or through consumption of contaminated meat. The ECDC and EFSA have been collecting and analyzing data submitted by EU countries on these bacteria to monitor for levels of antibiotic resistance since 2013.

Worrisome levels of multidrug resistance

CIDRAP [reports](#) that among the key findings of the report is that more than 1 in 4 (26.5 percent) of *Salmonella* isolates from human cases of Salmonellosis were multidrug-resistant, and high proportions of isolates were resistant to sulfonamides (34.6 percent), ampicillin (29.5 percent), and tetracyclines (29.2 percent). Among the most worrisome *Salmonella* serovars identified was *S Kentucky*; more than three-quarters of *S Kentucky* isolates (76.3 percent) were multidrug-resistant, and nearly half were resistant to at least five antibiotic classes. More than 85 percent of *S Kentucky* isolates were highly resistant to ciprofloxacin, and 19.8 percent were found to harbor extended-spectrum beta-lactamase (ESBL) enzymes.

About 40 percent of isolates from two other common *Salmonella* serovars, *S Infantis* and *S Typhimurium*, were multidrug-resistant, with one *S Typhimurium* isolate reported to be resistant to 8 of 9 tested antibiotics.

High levels of resistance were also reported in *Campylobacter* isolates from humans. Among isolates of *C jejuni*, the most common species identified in 2016, 54.6 percent were resistant to ciprofloxacin, with several countries (Portugal, Spain, Italy, Cyprus, Estonia, and Lithuania) reporting ciprofloxacin resistance levels of between 84 percent and 95 percent. Levels of resistance to tetracyclines in *C jejuni* were also high (42.8 percent). Among *Campylobacter coli* isolates, 63.8 percent were resistant to ciprofloxacin and 64.8 percent were resistant to tetracyclines. Resistance to erythromycin was higher in *C coli* isolates (11 percent) than in *C jejuni* isolates (2.1 percent).

While combined clinical and microbiological resistance to both ciprofloxacin and erythromycin—which are critically important for treatment of Campylobacteriosis—was low overall (0.6 percent in *C jejuni* and 8 percent in *C coli*), resistance to this combination was found in more than a third of all tested human *Campylobacter* isolates in three member states.

Campylobacter and *Salmonella* are the two most common foodborne zoonotic bacteria in Europe, with *Campylobacter* being the most-reported cause of food poisoning. Most infections occur through eating food contaminated with the bacteria, and abdominal pain and diarrhea are the main symptoms. But infections with drug-resistant *Salmonella* and *Campylobacter* can cause more severe illness.

“We are concerned to see that *Salmonella* and *Campylobacter* bacteria in humans show high levels of antimicrobial resistance,” Mike Catchpole, PhD, the ECDC’s chief scientist, said in an ECDC press release. “The fact that we keep detecting multidrug-resistant bacteria means that the situation is not improving. We need to investigate the origins and prevent the spread of highly resistant strains, such as ESBL-producing *Salmonella Kentucky*.”

High levels of resistance found in poultry

Among the *Salmonella* isolates from poultry meat (broilers and turkeys), resistance to tetracycline, ampicillin, and sulfamethoxazole ranged from moderate to extremely high, with the highest levels of resistance to these drugs found among *S Infantis* isolates from broiler meat. Multidrug resistance was reported in 50.3 percent of *Salmonella* isolates from broilers and 23.7 percent from turkey meat. In *Salmonella* isolates from poultry populations, most member states reported moderate to high or extremely high resistance to tetracyclines and sulfonamides, and similar or slightly lower levels of ampicillin resistance.

Observed levels of resistance among *C jejuni* and *C coli* isolates from broilers, turkeys, and their meat to ciprofloxacin, nalidixic acid, and tetracyclines were generally high (ranging from 50 percent to nearly 90 percent), but the prevalence of multidrug-resistance was low (around 1 percent).



Analysis of commensal *E coli* isolates from broilers, turkeys, and their meat found high levels of resistance to ampicillin, tetracyclines, ciprofloxacin, and sulfamethoxazole. The level of multidrug-resistance was also high (50.2 percent in broilers and 48.7 percent in turkeys), with considerable variation between the reporting member states.

Specific monitoring of commensal *E coli* isolates in poultry and poultry meat for production of ESBL, AmpC beta-lactamase, and carbapenemase enzymes, conducted for the first time in 2016, showed that the prevalence of ESBL-producing *E coli* isolates was low overall also varied widely among member states. Of note was the detection of 14 carbapenemase-producing *E coli* isolates from Romania and Cyprus.

Zoonotic bacteria carrying ESBL and carbapenemase enzymes are considered a public health concern because they are resistant to a wide spectrum of antibiotics, including penicillin derivatives, cephalosporins, and carbapenems—a class of last-resort antibiotics. Monitoring commensal *E coli* bacteria for these resistance mechanisms is important for both human and animal health because they can potentially be transferred to other types of bacteria that can spread among people and animal herds. Also of note, two linezolid-resistant livestock-associated MRSA isolates were identified from the pig production sector in Belgium. The isolates were found to harbor a transferable linezolid resistance gene. Since linezolid is one of the last remaining treatments for highly resistant strains of MRSA, this finding could have important implications for workers on pig farms, who are the most at-risk for LA-MRSA infections.

“The detection of resistance to carbapenems in poultry and to linezolid in methicillin-resistant *Staphylococcus aureus* in pigs is alarming because these antibiotics are used in humans to treat serious infections,” said Marta Hugas, PhD, EFSA chief scientist. “It is important that risk-managers follow-up on these findings.”

— *Read more in European Food Safety Authority and European Centre for Disease Prevention and Control, “The European Union summary report on antimicrobial resistance in zoonotic and indicator bacteria from humans, animals and food in 2016,” [EFSA Journal](#) 16, no. 2 (2018).*

The low-down on biological warfare

By Tim Newman

Source: <https://www.medicalnewstoday.com/articles/321030.php>

Mar 01 –“Biological weapons.” The phrase alone could send chills down the spine. But what are they? How do they work? And are we really at risk? In this Spotlight, we survey their history and potential future. Sometimes known as “germ warfare,” biological weapons involve the use of toxins or infectious agents that are biological in origin. This can include bacteria, viruses, or fungi.

These agents are used to incapacitate or kill humans, animals, or plants as part of a war effort.

In effect, biological warfare is using non-human life to disrupt — or end — human life. Because living organisms can be unpredictable and incredibly resilient, biological weapons are difficult to control, potentially devastating on a global scale, and prohibited globally under numerous treaties.

Of course, treaties and international laws are one thing — and humanity’s ability to find innovative ways of killing each other is another.

Biological warfare: The early days

The history of biological warfare is a long one, which makes sense; its deployment can be a lo-fi affair, so there is no need for electrical components, nuclear fusion, or rocket grade titanium, for instance.

An early example takes us back more than 2 and a half millennia: Assyrians infected their enemy’s wells with a rye ergot fungus, which contains chemicals related to LSD. Consuming the [tainted water](#) produced a confused mental state, hallucinations, and, in some cases, death.

In the 1300s, Tartar (Mongol) warriors besieged the Crimean city of Kaffa. During the siege, many Tartars died at the hands of plague, and their lifeless, infected bodies were [hurled over the city walls](#).



Some researchers believe that this tactic may have been responsible for the spread of Black Death plague into Europe. If so, this early use of biological warfare caused the eventual deaths of around 25 million Europeans. This is a prime example of biological warfare's potential scope, unpredictability, and terrifying simplicity.

Moving forward to 1763, the British Army attempted to use smallpox as a weapon against Native Americans at the Siege of Fort Pitt. In an attempt to spread the disease to the locals, the Brits presented blankets from a smallpox hospital as gifts.

Although we now know that this would be a relatively ineffective way to transmit smallpox, the intent was there.

During World War II, many of the parties involved looked into biological warfare with great interest. The Allies built facilities capable of mass producing [anthrax](#) spores, brucellosis, and [botulism](#) toxins. Thankfully, the war ended before they were used.

It was the Japanese who made the most use of biological weapons during World War II, as among other terrifyingly indiscriminate attacks, the Japanese Army Air Force dropped ceramic bombs full of fleas carrying the bubonic plague on Ningbo, China.

The following quote comes from [a paper](#) on the history of biological warfare.

"[T]he Japanese army poisoned more than 1,000 water wells in Chinese villages to study [cholera](#) and typhus outbreaks. [...] Some of the epidemics they caused persisted for years and continued to kill more than 30,000 people in 1947, long after the Japanese had surrendered."

Dr. Friedrich Frischknecht is professor of integrative parasitology, Heidelberg University, Germany.

New pathogen research rules: Gain of function, loss of clarity

By Gregory D. Koblenz and Lynn C. Klotz

Source: <https://thebulletin.org/new-pathogen-research-rules-gain-function-loss-clarity11540>

Feb 28 – In December 2017, after six years of debate and discussion, the United States government closed a chapter—though perhaps not the book—on one of the most controversial experiments in the annals of dual-use research: the creation of an H5N1 avian influenza virus that was transmissible through the air between mammals. That is, the Health and Human Services Department has finally issued new rules governing how it will decide whether to fund similar experiments in the future. While these new rules embody a reasonable set of principles for assessing the risks and benefits of such research, the review process could also be strengthened in several ways to ensure that it is comprehensive and rigorous.

The rise of “gain of function”

In 2011, Dutch researcher [Ron Fouchier](#) and American virologist Yoshihiro [Kawaoka](#) sparked a major controversy when, separately, they submitted manuscripts to *Science* and *Nature* in which they described how to generate strains of H5N1 avian influenza that were transmissible between mammals. This research on mammalian airborne transmissible H5N1, or math5N1, was published only after the [National Science Advisory Board on Biosecurity](#) and the [World Health Organization](#) engaged in lengthy and contentious review processes that focused on whether the research should be made public.

The experiments—which not only demonstrated that mammalian transmission of the virus was possible but also provided information on how to construct such a virus—triggered broad concern about the safety and security of so-called “gain-of-function” experiments. “Gain-of-function” experiments were defined by the US government as experiments that resulted in the creation of pathogens with enhanced virulence or transmissibility, or both. The introduction of the term “gain of function” immediately caused confusion. From a scientific perspective, “gain of function” can refer to a wide range of natural or artificially induced biological mutations, some of which could potentially create a more dangerous pathogen and others that do not. Because the controversy over math5N1 was framed in terms of “gain of function,” and not according to existing terminology and concepts for describing and assessing dual-use research that had been developed over the previous



10 years, the life sciences and biosecurity communities had to endure a long, unproductive debate about how to define this new category of worrisome research. Carving out “gain of function” as somehow distinct or separate from dual-use research has muddied debate and has had a long-lasting impact on policy.

The controversy over experiments that could make H5N1 transmissible between mammals triggered a flurry of new policies on dual-use research in the United States. In [2012](#) and [2014](#), the US government issued new regulations describing oversight of dual-use research of concern. The term “dual-use research of concern” was defined as comprising seven types of experiments conducted on one of 15 pathogens or toxins that, because they posed the highest risk of deliberate misuse, were designated as [Tier 1 agents](#). Despite these new rules, concern about gain-of-function research was renewed when the Centers for Disease Control and Prevention and the National Institutes of Health, in July 2014, experienced a trio of [biosafety failures](#) involving variola virus (the causative agent of smallpox), *Bacillus anthracis* (the bacterium that causes anthrax), and avian influenza. None of these incidents caused any human illnesses, but they occurred over a short time and at elite biomedical research institutions; these circumstances heightened concerns about the safe conduct of research into pathogens with enhanced virulence or transmissibility.

In response to the incidents, in October 2014 the White House [issued](#) a moratorium on funding new gain-of-function studies on influenza, SARS, and MERS; asked scientists engaged in such research to voluntarily halt their experiments; and announced that it would initiate a “deliberative process” to develop a new policy on dual-use gain-of-function research. The deliberative process, which was led by the National Science Advisory Board on Biosecurity, and which lasted 18 months, consisted of five meetings of the board; the commissioning of both a technical report analyzing the risks and benefits of gain-of-function research and an ethical study of such research; and two workshops, conducted by the National Academies of Science, to solicit the input of stakeholders. In May 2016, the advisory board issued its [recommendations](#) for oversight of gain-of-function experiments. (The recommendations introduced yet another confusing term: “gain-of-function research of concern.”)

In January 2017, the deliberative process reached its culmination with the issuance of [guidance](#) by the White House Office of Science and Technology Policy on research involving enhanced pathogens of pandemic concern. The shorthand for this guidance is “the P3CO Framework,” where—in government-speak—“P3CO” stands for “potential pandemic pathogen care and oversight.” The problematic terms “gain of function” and “gain-of-function research of concern” were thankfully replaced by language built around a better term—“enhanced.”

In its guidance, the Office of Science and Technology Policy recommended that federal agencies adopt new mechanisms to govern the creation, transfer, and use of potential pandemic pathogens with enhanced virulence, transmissibility, or both. According to the guidance, agencies adopting such policies might be able to resume funding the research that the White House had suspended in October 2014.

In December 2017, the Health and Human Services Department—home of the National Institutes of Health, the world’s [largest funder](#) of biomedical research—issued its policy on the oversight of research involving enhanced potential pandemic pathogens. This new policy—called the “[Framework](#) for guiding funding decisions about proposed research involving enhanced potential pandemic pathogens”—is broadly similar to, but not identical to, the corresponding guidance from the Office of Science and Technology Policy, which itself drew heavily from the advisory board’s report. The department, at the same time it issued its policy, also announced that, under the new oversight system recommended by the Office of Science and Technology Policy, it was resuming funding of research into enhanced potential pandemic pathogens.

We, the authors, harbor concerns about adequate oversight of potentially dangerous research, and the framework incorporates several elements that address those concerns. The framework is thorough. It does a good job of laying out the principles and processes through which the Health and Human Services Department will make funding decisions regarding research that involves enhanced potential pandemic pathogens. The framework’s approach to dual-use research of concern is not based on lists of experiments or on specific pathogens, but instead takes a risk-based approach that focuses on the attributes of modified organisms. While the identity of starting organisms is central to existing oversight policy for dual-use research of concern, the



framework emphasizes the importance of organisms' properties once the experiment is over. This more comprehensive approach to dual-use research is a welcome change. Some elements of the new framework, however, remain worrisome.

Too narrow

The framework's scope is not broad enough. The framework applies only to research funded by the Health and Human Services Department, and primarily the National Institutes of Health. Research funded by other federal agencies, or by the private sector, is not subject to this review process. This narrow scope contrasts with rules that the United States issued in 2012 regarding [oversight of dual-use research](#), which applied government-wide. Key provisions in the Health and Human Services framework contain wording almost identical to that in the guidance issued by the Office of Science and Technology Policy, so there does not appear to be a compelling reason that every federal agency should need its own set of rules to oversee research involving potential pandemic pathogens. Yet other agencies do need to oversee such research. The Agriculture Department has [identified](#) research on transmission of avian influenza between species, including mammals, as a key gap in understanding the epidemiology of this virus, and one that needs to be filled. Potential biodefense research, especially [research involving threat characterization](#), could be conducted or funded by the Defense Department, the Homeland Security Department, or the intelligence community, and such research could be relevant as well.

Likewise, considering current growth in the [bioeconomy](#), increasing [commercialization](#) of synthetic biology and genome editing, and the [increasing role](#) of the private sector in funding basic research, the exemption from oversight of privately funded life sciences research is a large and growing loophole. The recent synthesis of [horsepox virus](#) by Canadian scientists, with funding from a US biotech company, illustrates how privately funded research [can stray](#), intentionally or inadvertently, into the realm of dual-use research. The National Science Advisory Board on Biosecurity recommended that oversight of gain-of-function research be applied to all researchers, regardless of their source of funding. While this approach has not yet been implemented, the guidance issued by the Office of Science and Technology Policy held out the prospect of revisiting oversight of potential pandemic pathogens to determine if such oversight could be extended to all life sciences research, regardless of source of funding.

Terminology and definitions

The framework's definitions of certain terms leave a lot to be desired. For example, the framework defines a potential pandemic pathogen as a pathogen that has both of the following properties:

1. It is likely highly transmissible and likely capable of wide and uncontrollable spread in human populations; and
2. It is likely highly virulent and likely to cause significant morbidity and/or mortality in humans

This definition of a human potential pandemic pathogen has some flaws. The word "likely" is too strong, as it implies a high probability or a high level of confidence in the estimated probability. "Possibly" would be a better qualifier—it implies some probability, but does not set the bar too high. Words such as "highly" and "significant" might be too strong as well.

Assessing the risk posed by research with potential pandemic pathogens requires consideration of several factors. These include the likelihood that an experiment will generate an organism with enhanced virulence, transmissibility, or both; the likelihood that this virus could escape the laboratory; and the consequences of such a release. An estimated [60 percent case fatality rate](#) is associated with wild-type H5N1 avian influenza. So even if the likelihood of an experiment generating a strain of this virus with enhanced transmissibility among mammals were judged as possible but not likely, grave concerns about the virus's potential to seed a pandemic if it escaped from a laboratory would remain high.

As another example, consider a highly pathogenic avian influenza strain that has been modified in the laboratory to bind to isolated human lung-cells in culture—a first step toward infection in humans via airborne transmission. If these modified viruses have *not* been tested for airborne transmissibility in ferrets, the standard animal model for studying human influenza airborne transmission, would they qualify as being "likely highly transmissible" among humans and therefore subject to review under the framework? The framework should not be



interpreted to apply only to reviewing *in vivo* work with enhanced potential pandemic pathogens. *In vitro* research with an enhanced virus that could possibly be transmissible among humans should still be subject to review.

The framework does a better job defining what an enhanced potential pandemic pathogen is—or, in the older vernacular, a gain-of-function potential pandemic pathogen. An enhanced potential pandemic pathogen is defined as “a [potential pandemic pathogen] resulting from the enhancement of the transmissibility and/or virulence of a pathogen.” This definition is straightforward. The “and/or” language here is important, as the literature is rife with research studies in which the virulence of avian or human influenza viruses has been intentionally or accidentally increased in ferrets, mice, and other mammals. Such research, based on the definition cited just above, should be subject to review under the framework as well.

Review process

The review process created by the new rules is a mixed bag. One positive development is that entities such as institutional biosafety committees, which review research to ensure that it adheres to relevant biosafety and dual-use research rules, have been removed from the process of deciding if a proposed project should be referred to the Health and Human Services Department for review. Institutional biosafety committees may not have the expertise necessary to review certain types of research proposals, and they could be pressured by investigators within their institutions to deem proposed research not subject to review by Health and Human Services.

Instead, the funding agency holds the primary responsibility for implementing these new rules. First, the funding agency “conduct[s] standard scientific merit review” of a proposal. Next, proposed research that is “reasonably anticipated” to create, transfer, or use enhanced potential pandemic pathogens is referred to departmental-level review. The department-level review is conducted by a multidisciplinary group including experts with experience in scientific research, biosafety, biosecurity, medical countermeasures, law, ethics, public health preparedness and response, biodefense, select agent regulations, and public health policy. The review group can also contain voting and non-voting members from Health and Human Services or other federal agencies. The funding agency must “consider the recommendations resulting from the departmental-level review” to make a decision on funding.

[Multidisciplinary review](#) is an important aspect of dual-use research oversight, and its inclusion in the new rules, along with the wide-ranging expertise suggested for the proposed department-level review committee, is to be applauded. But multidisciplinary review committees should include some *ad hoc* members from outside the government—otherwise, the details of reviews may never be transparent to outsiders.

An important question remains about where the review group will be based. It is unclear where the departmental review would be managed. The guidance by the Office of Science and Technology Policy, in order to reduce the risk of conflict of interest, encouraged agencies to vest responsibility for oversight of enhanced potential pandemic pathogens in offices that are not part of an agency that is proposing to fund such work. This recommendation was a direct result of a controversy surrounding H5N1—the advisory board [got into trouble](#) for questioning the wisdom of experiments that had been funded by the National Institutes of Health, the board’s parent agency. Subsequently, most of the board’s members were replaced, the charter of the group was narrowed, and no meetings were held for two years. Any review of research into enhanced potential pandemic pathogens needs to be organized and conducted by a group [sufficiently independent](#) from the funding agencies that have an interest in the research under review. The Office of the Assistant Secretary for Preparedness and Response in the Health and Human Services Department is one logical choice.

Another positive aspect of the framework is that it requires the department-level committee to consider the risks posed by research that involves any of the following outcomes:

- ◆ Enhancing the harmful consequences of a pathogen
- ◆ Disrupting immunity or the effectiveness of an immunization against the pathogen without clinical or agricultural justification



- ◆ Conferring to the pathogen resistance to clinically or agriculturally useful prophylactic or therapeutic interventions against that pathogen, or facilitating the pathogen's ability to evade detection methodologies
- ◆ Increasing the pathogen's stability, transmissibility, or ability to disseminate
- ◆ Altering the host range or tropism of the pathogen
- ◆ Enhancing the susceptibility of a host population to the pathogen
- ◆ Generating or reconstituting an eradicated or extinct pathogen

These seven categories of experiments are based on a list first put forward 14 years ago in a National Academy of Sciences [report](#) titled "Biotechnology research in an age of terrorism" (also called the Fink Report). This is the same list of experiments included in the 2012 and 2014 US government policies for dual-use research of concern—but those policies are only applied to research with 15 Tier 1 pathogens and toxins. The inclusion of these seven categories of dual-use experiments in the framework usefully expands, beyond increases in virulence and transmissibility, the range of potential risks that will be subject to review by the Health and Human Services Department. Still, since the new department policy only applies to enhanced potential pandemic pathogens, it represents only incremental progress toward the Fink Report's recommended goal of reviewing all research in the life sciences that engages in such experiments.

New criteria for risks and benefits

Assessing the risks and benefits of research into enhanced potential pandemic pathogens is [inherently problematic](#). During the deliberative process, participants never achieved agreement on whether potential benefits outweighed risks for mH5N1. Many still believe that the potential benefits of that research do not justify the potential risk. How will the risks and benefits of research into enhanced potential pandemic pathogens be measured and balanced? What criteria will the Health and Human Services Department use to guide its review of research proposals and its funding decisions? What is the threshold or standard of evidence that will be used to make these judgments? Most of the criteria discussed in the framework are standard in existing policy regarding dual-use research of concern, and will generate the same intensity and diversity of opinion that were witnessed throughout the debate on H5N1 and during the deliberative process.

The framework contains two notable items that are not standard in existing policies for dual-use research of concern. First, review of proposed research with an enhanced potential pandemic pathogen will include an assessment of whether there are "no feasible, equally efficacious alternative methods to address the same question in a manner that poses less risk than does the proposed approach." During the deliberative process, some observers pointed out that [alternative methods](#) have been published that can determine the mutations required to make H5N1 avian influenza transmissible through air between mammals—and that these methods would not generate new strains of enhanced live viruses. Researchers should always employ low-risk or no-risk alternatives first, before resorting to live virus—especially one with the potential to cause a global pandemic if it escaped from a lab. Therefore, it is good to see this principle of responsible research enshrined in the framework.

The second addition to the criteria for guiding funding decisions by the Health and Human Services Department is laudable, but it may prove more difficult to operationalize. The final criterion in the Health and Human Services review process, which is based directly on recommendations by the advisory board and the Office of Science and Technology Policy, is to determine whether or not research is "ethically justifiable." The department-level review committee, in its review of the ethical aspects of a proposed experiment, is encouraged to consider to what extent the experiment represents non-maleficence, beneficence, justice, respect for persons, scientific freedom, and responsible stewardship. Previous guidance for dual-use research of concern was focused strictly on scientific criteria for assessing the risks and benefits of dual-use research. In a [2015 paper](#) commissioned, as part of the deliberative process, by the advisory board on the ethics of dual-use research, Monash University professor Michael Selgelid observed, "Like risk-benefit assessment, ethics involves inevitable uncertainty." The Health and Human Services Department, facing an extra



dimension of uncertainty in the review process, will be forced to grapple with a [new set of issues](#) which it might find itself unprepared to address adequately.

Transparency

The criteria used to judge which experiments involving enhanced potential pandemic pathogens warrant review by the Health and Human Services Department—and how the risks, benefits, and ethical aspects of such experiments are measured and weighed—are ambiguous enough to provide departmental reviewers wide latitude in their funding decisions. The process and outcomes must be transparent in order to demonstrate that the process is conducted in good faith and that policy is implemented appropriately. The framework, though it recognizes the importance of transparency for maintaining public trust in science, does not go far enough in actually providing the requisite level of transparency.

The guidance from the Office of Science and Technology Policy called on agencies “to the maximum extent possible” to “provide transparency to the public regarding funded projects involving the creation, transfer, or use of enhanced [potential pandemic pathogens].” According to the framework, the Health and Human Services Department “will periodically ask the National Science Advisory Board for Biosecurity to review the process described herein.” This approach to transparency is neither timely nor tied to specific reviews of proposed or funded projects. Instead, the policy provides only for occasional transparency about the process itself, not the results of that process. In addition, nothing guarantees that the advisory board review will be made available to the public. Furthermore, since the advisory board is advisory only, it has no ability to force Health and Human Services to revise its process if it finds the process lacking, or to revisit or reverse a funding decision. Meanwhile, the advisory board itself recommended the establishment of an independent advisory committee to evaluate the implementation of the new oversight policy. Until such an accountability mechanism is established, the Health and Human Services Department should provide annual reports on the implementation of its policy on potential pandemic pathogens, which would be reviewed by the advisory board and interested stakeholders. It is also incumbent upon the Office of Science and Technology Policy to follow up on the commitment it made in its guidance to review the implementation of departmental policies on review of potential pandemic pathogens one year after their adoption and determine if any revisions are necessary.

International considerations

The final weakness in the framework is that it only applies to research conducted within the United States. Previous research has demonstrated that research with enhanced potential pandemic pathogens is occurring in [labs around the world](#). Ultimately, the release of an enhanced potential pandemic pathogen from a laboratory is an international issue, as pandemics know no boundaries. With modifications, the framework could serve as a starting point for international discussion about oversight and regulation of research into enhanced potential pandemic pathogens. In December 2017, state parties to the Biological and Toxin Weapons Convention—the international treaty that outlaws the development and possession of biological weapons—agreed to establish a number of [expert working groups](#) to examine key issues related to the treaty. One of the working groups will be dedicated to examining developments in science and technology related to the treaty, including biological risk assessment and management. Another working group will focus on strengthening national implementation, including measures to prevent the development of biological weapons and the transparency of dual-use research. Both of these working groups could provide suitable venues for discussing new US policies on the oversight of research into enhanced potential pandemic pathogens and for learning how other countries approach this issue.

The December 2017 adoption of the framework by the Health and Human Services Department is a milestone in the long-running debate over how best to provide oversight of life sciences research to maximize benefits and minimize risks. While this policy was the culmination of several years of effort by a diverse group of stakeholders, it is by no means the final word on the subject. The Office of Science and Technology Policy is supposed to lead a review of policies on potential pandemic pathogens one year after their adoption by departments. This article has provided an initial assessment of the areas that deserve further scrutiny—and possibly revision—in order to strengthen oversight of this important field of research.



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Terror nightmare: ISIS trying to cook up ricin and anthrax in UK lab

Source: <http://www.ibtimes.co.uk/terror-nightmare-isis-trying-cook-ricin-anthrax-uk-lab-1665100>

Mar 04 – ISIS terrorists are trying to create killer poisons like ricin and anthrax in UK labs.

Security chiefs say the UK is not prepared for even the most basic bio-attack.



It is feared a terror cell could use ricin or anthrax – each with the potential to kill hundreds - to contaminate water or food supplies, the Daily Star reported.

Ricin occurs naturally in the seeds of the castor oil plant.

A security source told the paper: "We know that al-Qaeda terrorists have tried to manufacture ricin in the UK in the past. We now suspect members of Isis based in the UK are attempting to do the same.

"The use of chemical and biological weapons by Isis is

a threat which is being treated very seriously.

"We know that British citizens who fought with Isis in Iraq and Syria were trained in a number of terrorist tactics including the development of basic bio-weapons."

Last week, Prince Harry and fiancée Meghan Markle were at the centre of an anthrax scare when white powder was found in the mail at Kensington Palace.

The powder was found to be harmless but it also shows the fear among security chiefs.

Anthrax is a bacteria infection. Ricin occurs naturally in the castor oil plant but in its pure form is incredibly toxic

Scientists develop new tool for imprinting biochips

Source: https://www.eurekaalert.org/pub_releases/2018-03/asrc-sdn030518.php

Mar 08 – 3-D printing has gained popularity in recent years as a means for creating a variety of functional products, from tools to clothing and medical devices. Now, the concept of multi-dimensional printing has helped a team of researchers at the Advanced Science Research Center (ASRC) at the Graduate Center of the City University of New York develop a new, potentially more efficient and cost-effective method for preparing biochips (also known as microarrays), which are used to screen for and analyze biological changes associated with disease development, bioterrorism agents, and other areas of research that involve biological components.

In a paper published today in the journal *Chem*, researchers with the ASRC's Nanoscience Initiative detail how they have combined microfluidic techniques with beam-pen lithography and photochemical surface reactions to devise a new [biochip](#) printing technique. The method involves exposing a biochip's surface to specific organic reagents, and then using a tightly focused beam of light to adhere the immobilized reagents to the chip's surface. The process allows scientists to repeatedly expose a single chip to the same or different factors



and imprint the reactions onto different sections of the biochip. The result is a biochip that can accommodate more probes than is achievable with current commercial platforms.

"This is essentially a new nanoscale printer that allows us to imprint more complexity on the surface of biochip than any of the currently available commercial technologies," said Adam Braunschweig, lead researcher and associate professor with the ASRC's Nanoscience Initiative. "It will help us to gain much better understanding of how cells and biological pathways work."

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

Health security's blind spot

By Seth Berkley

Science 09 Mar 2018: Vol. 359, Issue 6380, pp. 1075

Source: <http://science.sciencemag.org/content/359/6380/1075.full>

The severity of this year's influenza virus is a reminder of the daunting task facing the global health community as it struggles to prevent infectious diseases from sparking deadly epidemics. Today, yellow fever and cholera continue to spread in Africa, while Brazil is in the midst of a major yellow fever outbreak. It was only recently that Zika virus and Ebola virus epidemics were in the headlines. The world needs to harness every resource and tool in the battle to catch outbreaks before they catch us. Prevention is always the first line of defense, and nations must maintain vigilant surveillance—and yet, effective and affordable, quick and definitive diagnostics are absent in the countries where they are most needed. This represents one of our most serious global health security blind spots.

During the 2014 Ebola epidemic in West Africa, the first cases were initially misdiagnosed as cholera, and then later as Lassa fever on the basis of clinical symptoms. It took nearly 3 months before blood samples sent to Europe finally identified the disease as Ebola, during which time it was allowed to spread. Similarly, in Nigeria, a lack of rapid diagnostics is making it difficult to get ahead of the current yellow fever outbreak with targeted vaccination. Throughout 2016 and the first 8 months of 2017, Nigerian laboratories were unable to carry out tests on almost all suspected cases of yellow fever, owing to a shortage of chemicals needed for those diagnostics. When these reagents eventually became available last fall, yellow fever had spread to multiple states. As of last month, there were more than 350 suspected yellow fever cases over 16 states and 45 deaths. The world's poorest countries simply

cannot equip and maintain their limited laboratory facilities.

But the problem is not just how well-stocked laboratories are, it's also about how quickly and reliably they can respond. For yellow fever, whenever lab tests are positive or inconclusive in Africa, samples are sent to a Regional Reference Laboratory for confirmation. For the whole of Africa there is just one such facility in Dakar, Senegal. Even under the best conditions, these lab tests are expensive and take at least a month. What's more, about 40% of samples found to be positive by Nigerian national laboratories have tested negative in Senegal, creating uncertainty about the reliability of the test. The United States Centers for Disease Control and Prevention (CDC) has historically played a major role in helping countries expand disease surveillance and modernize laboratories, particularly for new viruses and drug-resistant bacteria. But now it is feared that the CDC may scale back its global health security work in 39 developing countries. This prospect highlights the need for low-income countries to create a sustainable program for their disease surveillance.

Ultimately, to achieve sustainable global epidemic preparedness, we need to stimulate the development of cutting-edge diagnostic technologies—both for laboratories and for use in the field in remote locations—and make them available and affordable in low-income countries. One approach is to provide incentives to industry by creating markets that may have seemed impossible. At Gavi, the Vaccine Alliance, we have been doing this by working with industry to harness innovative



refrigeration technologies to modernize vaccine cold chains in poor countries. The global health community could look at how partnerships with industry can be applied to innovative diagnostic technologies. Early detection through reliable, available, and efficient testing is essential to stopping outbreaks before they spread. With many diseases presenting similar first

symptoms, it's all too easy to get a diagnosis wrong and potentially miss an outbreak. And given the ease and speed at which pathogens can now travel in the modern urban-dense global village, any delay in diagnosis will inevitably and increasingly be measured in lives lost.

Seth Berkley is chief executive officer of Gavi, the Vaccine Alliance, Geneva, Switzerland.

Jihadis could develop deadly viruses that STRIP human DNA

Source: <https://www.dailystar.co.uk/news/world-news/687649/crispr-dna-weapons-mass-destruction-wmd-gene-editing>

Mar 09 – With its potential for treating diseases ranging from cancer to diabetes, cutting-edge tech CRISPR has taken the medical world by storm.

The technique has given scientists a powerful way to make precise changes to DNA in bacteria, plants and now in human cells.

But CRISPR's low cost and relative ease of use has spooked intelligence agencies.

The basic ingredients can be bought online for £40.

And boffins have speculated whether CRISPR can be used to make killer mosquitoes, plagues that wipe out staple crops, or even a virus that cuts away people's DNA.



Getty / Crispr Cas-9 technology kits can cost only £40

While the tech allows scientists to edit dangerous mutations from genes, the reverse is also true - meaning mass malevolent alterations can create deadly mutations.

The threat is so grave that James Clapper, US director of national intelligence, has described the threats posed by gene editing as a Weapon of Mass Destruction.

It was the only biotechnology appearing in a tally of more conventional threats, like North Korea's nuclear testing, Syria's undeclared chemical weapons, and new Russian international treaty – violating cruise missiles.

“Research in genome editing conducted by countries with different regulatory or ethical standards than those of Western countries probably increases the risk of the creation of



potentially harmful biological agents or products,” the National Intelligence Authority worldwide threat assessment report said.

The concern is that biotechnology is a “dual use” technology - meaning normal scientific developments could also be harnessed as weapons.

The report noted that new discoveries “move easily in the globalised economy, as do personnel with the scientific expertise to design and use them”.

“Biotechnology, more than any other domain, has great potential for human good, but also has the possibility to be misused,” says Daniel Gerstein, a senior policy analyst at RAND and a former under secretary at the Department of Homeland Defence.

“We are worried about people developing some sort of pathogen with robust capabilities, but we are also concerned about the chance of misutilisation.

“We could have an accident occur with gene editing that is catastrophic, since the genome is the very essence of life.”

In 2016, Bill Gates warned “the next epidemic could originate on the computer screen of a terrorist intent on using genetic engineering to create a synthetic version of the smallpox virus”.

And more recently, John Sotos, of Intel Health & Life Sciences, stated that gene editing research could “open up the potential for bioweapons of unimaginable destructive potential”.

The technology's origins can be traced back to bacteria, which protect themselves by cutting out invading viruses' DNA and inserting it into their own, then replicating the new sequences to prevent future viral invasions

Since its discovery, CRISPR has been used for a variety of impressive feats, from producing mushrooms that don't go mouldy to removing HIV from human cells.

Progress is also being made in tackling genetic diseases such as sickle-cell anemia and certain forms of blindness and muscle wastage.

And scientists in Massachusetts reported they had made a significant advance towards pig-to-human organ transplants. They used CRISPR to inactivate 25 viruses intrinsic to pigs' genomes, overcoming a big obstacle in making porcine transplants safe for humans.

Situational Uses of Syndromic Surveillance

By James W. Buehler, Ellen A. Whitney, Donna Smith et al.

Biosecurity and Bioterrorism: Biodefense Strategy, Practice, and Science [Vol. 7, No. 2](#) Original Articles
(Published Online: 27 Jul 2009)

Abstract

Since 2001, many state and local health departments have implemented automated systems to monitor healthcare use and to promptly identify and track epidemics and other public health threats. In 2007-08, we conducted case studies of selected events with actual or potential public health impacts to determine whether and how health departments and hospitals used these new systems. We interviewed public health and hospital representatives and applied qualitative analysis methods to identify response themes. So-called “syndromic” surveillance methods were most useful in situations with widespread health effects, such as respiratory illness associated with seasonal influenza or exposures to smoke from wildfires. In other instances, such as a tornado or hazardous material exposures, these systems were useful for detecting or monitoring health impacts that affected relatively few people, or they were used to affirm the absence of outbreaks following natural disasters or the detection of a potential pathogen in air samples. Typically, these data supplemented information from traditional sources to provide a timelier or fuller mosaic of community health status, and use was shaped by long-standing contacts between health department and hospital staffs. State or local epidemiologists generally preferred syndromic systems they had developed over the CDC BioSense system, citing lesser familiarity with BioSense and less engagement in its development. Instances when BioSense data were most useful to state officials occurred when analyses and reports were provided by CDC staff. Understanding the uses of surveillance information during such events can inform further investments in surveillance capacity in public health emergency preparedness programs.





Disease X: World Health Organisation issues global alert for potential pandemic

Source: <http://www.news.com.au/lifestyle/health/disease-x-world-health-organisation-issues-global-alert-for-potential-pandemic/news-story/8aca8d48b253da7c164784967a6ed174>

Mar 11 – The World Health Organisation has a list of diseases which pose a serious outbreak threat.

[Ebola.](#)

[Lassa fever.](#)

[CCHF haemorrhagic fever.](#)

[Nipah / henipaviral.](#)

[MESS.](#)

[SARS.](#)

[Zika.](#)

Now a high-level meeting of the world's best medical scientists has added another to the high-risk list.

[It's been dubbed 'Disease X'.](#)

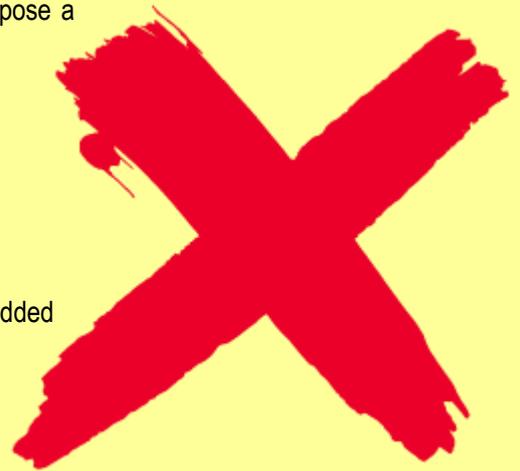
The group, based in Geneva, convenes each year to discuss what new diseases pose the greatest potential of turning into a global pandemic.

This year, they've conceded they don't know what it is.

But their computations warn conditions are ripe for its arrival.

And it's not just a stressed Mother Nature — with new organisms constantly being exposed by deforestation and close contact between humans and animals — who's likely to be at fault.

The WHO points out the use of chemical warfare is on the rise, both on the battlefield and in international espionage. And a series of deadly new diseases have recently been deliberately created through gene editing.



What if one goes rogue?

"Disease X represents the knowledge that a serious international epidemic could be caused by a pathogen currently unknown to cause human disease," [the WHO said in a statement.](#)

It believes the world's not in a good position to respond to such a surprise.

"History tells us that it is likely the next big outbreak will be something we have not seen before", WHO committee science adviser John-Arne Rottingen told the [Telegraph.](#) "The point is to make sure we prepare and plan flexibly in terms of vaccines and diagnostic tests."

Germ warfare

The WHO is worried a new international public health crisis could come from any direction.

Not that it doesn't have enough to worry about as it is

The flu virus continues to rapidly mutate. And new exotic pathogens keep jumping to humans from animals.

"These diseases pose major public health risks, and further research and development is needed, including surveillance and diagnostics", it states.

But a recent explosion in gene editing technology — such as CRISPR — has come at a bad time.

It highlights how post-World War II taboos against the use of nerve and poison gas, as well as weaponised bacteria and viruses, have been breaking down.

North Korea stands accused of using a nerve agent to kill the brother of their leader, Kim Jong-un.

Russia stands accused of using a radioactive substance to murder a former spy in Britain in 2006. It's again been implicated in a nerve-agent attack on another spy, Sergei Skripal, earlier this month.



Syria — after promising to hand over all its chemical weapons several years ago — is once again being accused of unleashing toxic substances against its own population in towns and suburbs under the control of rebel forces.

The WHO points out that synthetic diseases will face no natural immunity in the world's population. Nobody has ever been exposed to them before. So their immune systems haven't found any weak spots in such a disease.

This means a deliberate outbreak is likely to spread fast, with a high level of fatality.

And the increasing ease with which genetic material can be crafted makes the likelihood of a 'rogue' researcher crafting biological weapons that much more likely.

Nature sickened

Despite the increased threat of manufactured plague, the WHO still believes it is much more likely the next worldwide epidemic will come from nature.

It highlights increasing human population densities make it easier for contagious diseases to spread. It also brings more people in contact with a greater variety of animals, plants and soils as towns and cities spread.

HIV is believed to have jumped to humans from monkeys.

SARS is likely to have passed from bats to civet cats before invading the human population.

ZIKA is carried by mosquitoes.

"The intensity of animal and human contact is becoming much greater as the world develops. This makes it more likely new diseases will emerge but also modern travel and trade make it much more likely they will spread," [says WHO scientific adviser](#) Professor Marion Koopmans.

Several such diseases were considered for listing at this year's meeting.

Monkeypox. Leptospirosis. Chikungunya.

"The importance of the diseases discussed was considered for special populations, such as refugees, internally displaced populations, and victims of disasters," the WHO statement reads.

But none have quiet yet set off alarm bells.

Instead, the WHO hopes that formally designating "Disease X" as the unknown next pandemic will help spur researchers worldwide into preparing a rapid response to any surprise outbreak.

New technology gives early warning of exposure to disease-causing pathogens

By Dorothy Ryan

Source: <http://www.homelandsecuritynewswire.com/dr20180313-new-technology-gives-early-warning-of-exposure-to-diseasecausing-pathogens>

Mar 13 – Overt symptoms of many diseases often do not manifest until days after a person's initial exposure to the causative pathogen, typically a virus or bacteria. By then, the disease may have progressed to a level at which the benefits of patient treatment are diminished and the likelihood of pathogen exposure among a wider population is high. Doctors and public health officials would welcome warnings that enable them to begin early mitigation and containment of disease outbreaks.

Researchers at MIT Lincoln Laboratory, the National Institutes of Health Integrated Research Facility (NIH-IRF), and the U.S. Army Medical Research Institute of Infectious Diseases (USAMRIID) are developing a technology that may provide those early warnings. The PRE-Symptomatic AAgent Exposure Detection (PRESAGED) algorithm uses real-time physiological data, such as heart electrical activity (electrocardiography, ECG), breathing rate, and temperature, to calculate the probability that a person has been exposed to a virus or bacteria. PRESAGED is designed to run on data collected from noninvasive medical sensors—for example, wearable electrocardiographs (also known as Holter monitors).

The objectives of the PRESAGED research, which is sponsored by the Defense Threat Reduction Agency, are to provide both effective individual patient care resulting from early



treatment and faster, more confident implementation of public health measures, such as isolation, to improve overall population health by blunting epidemics. “The message that ‘earlier is better’ is found throughout medicine, and only recently have small, wearable medical devices enabled the persistent surveillance needed for detecting pathogen exposure. The earlier you know you’ll be sick, the faster you can begin to respond, and perhaps avoid the worst of the illness completely,” said Albert Swiston, a

principal researcher on the PRESAGED project. “Earlier detection of epidemics on the per-person scale also offers an entirely new method for public health surveillance and countermeasures,” he added.

Using data acquired from non-human primates at USAMRIID and NIH-IRF, the researchers developed and tested PRESAGED for several exposure methods (intramuscular, aerosol, or intratracheal routes) to one of several viral hemorrhagic fevers, including Ebola virus, or the bacterial pathogen, *Y. pestis*. Because PRESAGED detects a subject’s physical response to the pathogen and does not recognize biomarkers for the pathogen itself, PRESAGED currently does not differentiate or identify the viruses or bacteria. The subjects’ physiological data were standardized to remove the effects of daily rhythms, aggregated to reduce short-term fluctuations in data, and then provided to a supervised binary classification machine learning algorithm. The machine learning technique used can learn subtle physiological changes over time and apply them to the data analysis, thus enabling an ongoing check for signs of pathogen exposure rather than relying on a one-time “snapshot” of physiological data, such as a single blood sample analysis.

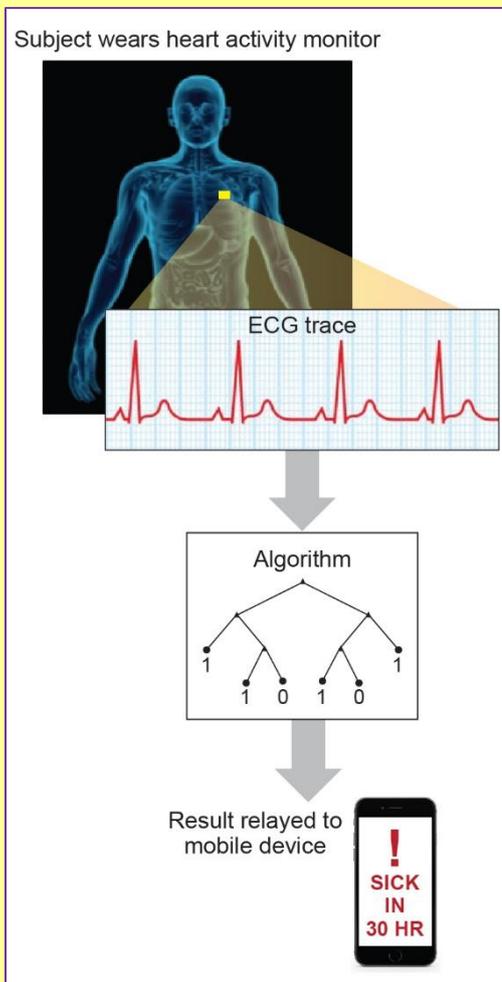
“Everyone knows from experience that they have their own ‘normal.’ Perhaps your temperature usually runs low, or you have high blood pressure or rapid heart rate. The fundamental leap forward with PRESAGED is the ability of the [machine learning] algorithm to analyze each individual’s continuously collected data to detect differences in health status and prompt with alerts,” says Anna Honko, a member of the development team from the National Institutes of Health’s Integrated Research Facility.

During PRESAGED’s development, all of the test subjects did eventually display overt symptoms of disease, primarily fever. PRESAGED was able to consistently warn of possible viral or

bacterial exposure more than two days before fever developed in almost all animals. Currently, the best-possible tests to indicate pathogen exposure are invasive, labor-intensive, serially-sampled blood-based assays, which may give only 6 to 12 hours of warning.

The physiological biosignal features provided to PRESAGED during the primate testing were collected by implanted monitoring devices. To evaluate PRESAGED’s performance with data from noninvasive devices, which would be practical for clinicians and public health workers to use, the researchers conducted a computer simulation using a dataset that included only ECG-derived features, such as the time intervals between certain peaks of the ECG waveform. The PRESAGED team compared the performance of the PRESAGED algorithm when all available physiological features were analyzed against the algorithm’s performance when features derived only from the ECG waveform were considered. Only modest performance decreases in early-warning time and probability of detection were seen. These results suggest the implementation of this algorithm with ECG-based devices, such as wearable heart-rate monitors.

“In an era of ‘precision medicine’ where people are becoming more comfortable with the integration of technology in their lives, the PRESAGED algorithm has amazing potential to



transform not only the field of biodefense and emerging diseases, but also healthcare in the rest of our lives—in our hospitals, schools and large cities,” says Honko.

PRESAGED is the first system capable of giving early warning of incipient disease symptoms (e.g., fever). The algorithm robustly predicts the probability of pathogen exposure, without regard to the particular pathogen, the exposure route, or pathogen dose. PRESAGED has also been shown to provide early warning on exposure to entirely novel pathogens (i.e., pathogens unavailable for algorithm training), suggesting that this approach will be robust in detecting emergent diseases, such as SARS/MERS or novel flu strains, well before new training data are available.

The research team is working toward future iterations of PRESAGED that will include using the algorithm to identify specific pathogens, moving the implementation entirely to wearable devices, and making alerts to users over their phones or the cloud.

Challenges and Achievements in Prevention and Treatment of Smallpox

By Sharon Melamed, Tomer Israely and Nir Paran

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Vaccines 2018, 6(1), 8; doi:[10.3390/vaccines6010008](https://doi.org/10.3390/vaccines6010008)

Source (full paper): <http://www.mdpi.com/2076-393X/6/1/8/htm>

Abstract

Declaration of smallpox eradication by the WHO in 1980 led to discontinuation of the worldwide vaccination campaign. The increasing percentage of unvaccinated individuals, the existence of its causative infectious agent variola virus (VARV), and the recent synthetic achievements increase the threat of intentional or accidental release and reemergence of smallpox. Control of smallpox would require an emergency vaccination campaign, as no other protective measure has been approved to achieve eradication and ensure worldwide protection. Experimental data in surrogate animal models support the assumption, based on anecdotal, uncontrolled historical data, that vaccination up to 4 days postexposure confers effective protection. The long incubation period, and the uncertainty of the exposure status in the surrounding population, call for the development and evaluation of safe and effective methods enabling extension of the therapeutic window, and to reduce the disease manifestations and vaccine adverse reactions. To achieve these goals, we need to evaluate the efficacy of novel and already licensed vaccines as a sole treatment, or in conjunction with immune modulators and antiviral drugs. In this review, we address the available data, recent achievements, and open questions.



Treatment for Smallpox Gets FDA Priority Review

Source: <https://www.empr.com/drugs-in-the-pipeline/smallpox-tpoxx-tecovirimat-siga-barda/article/742601/>

Feb 07 – The Food and Drug Administration (FDA) has accepted and granted priority review to the New Drug Application (NDA) for TPOXX, an antiviral therapy for smallpox. There is currently no treatment approved for smallpox infection.

TPOXX (tecovirimat; SIGA Technologies) is a novel small molecule orally-administered antiviral. The treatment was developed under the FDA's 'Animal Rule' where efficacy is determined in animal studies and human studies determine safety and appropriate dosing.



“Our public-private collaboration serves as an important example of how such partnerships can advance novel drugs for unmet medical needs,” said Dr. Phil Gomez, CEO of SIGA. “Eventual approval of this product would be an important step in advancing health security against the serious threat of a potential smallpox-based bioterror attack.”

SIGA received funding to complete the development of TPOXX from the U.S. government's Biomedical Advanced Research and Development Authority (BARDA). Although not yet



approved, BARDA has already purchased 2 million courses of TPOXX, which have been delivered to the Strategic National Stockpile (SNS).

The FDA has stated a target action date for TPOXX of August 8, 2018.

Postulated Threat and Understanding the Adversary

By Wayne Tackett

Source: <http://at-riskinternational.com/news/postulated-threat-and-understanding-the-adversary/>

Feb 27 – Unfortunately, in the world today we face threats in many areas of our daily lives. As security professionals, it is essential that we know, analyze and mitigate the threats that we face to the greatest extent possible.

I have spent more than 30 years in the business of security, the majority of that within the United States Department of Defense, but in the civilian sector I have found that threat management is not too dissimilar. It is in this capacity that I have discovered one of the best ways to understand and mitigate the threat you face in any aspect of your life is by looking at the risk from a postulated perspective.

From my experience, managing the threat and the design basis threat, is easiest when you put it all into perspective and develop the best possible way to understand your potential adversary; whether your adversary is in the corporate environment, on the roadway, on the playing field or in a high-threat travel/operational location.

First, we need to determine **what is a postulated threat?** The dictionary defines postulated as a form of postulate;

◆ **Verb:** suggest or assume the existence of fact, or truth as a basis for reasoning, discussion, or belief

◆ **Noun:** a thing suggested or assumed as true as the basis for reasoning, discussion or belief

So, in essence a postulated threat is based on something that you know or assume to be true with which you determine the best course of action for mitigation.

What do we need to know or understand about the threat we face? One of the first things you should determine is the number or the commonality of identified groups both in observed and potential strength, specifically in the environment of your operations.

Identified groups are a collection of people determined to likely attempt overt or covert aggression against your location or operation. Some of the variables you should use to determine the potential of aggression are:

1. Presence in the area
2. Intent to target operation
3. Capacity for success against operations
 - a. Tactics, techniques or procedures
 - b. Training
4. Capabilities projected during previous activity

One method you can use to assist in gathering this type of intelligence is including as many stakeholders as possible in the affected area to share different sources and experiences.

Once you have gathered intelligence, training is the next logical step. How do we train ourselves to help ensure the best possible opportunity for success in the corporate world, on the playing field or in our everyday lives? We practice, practice, practice. Tried and true methods of preparation are to develop plausible scenarios that our competition may use against us and train ourselves for those postulated activities. There are four key things you must consider to maximize your training efforts:

1. Understand fully the environment and any considerations needed for success
2. Consider how your adversary's vulnerabilities may be exploited based on demonstrated or assessed capabilities
3. Determine desired intent – theirs and yours
4. Develop scenarios based on all this information and train yourself and your personnel for success



You may be thinking that this sounds too much like a military aspect of threat management, however I would argue that you can incorporate this into everyday life. In business, you need to know the capabilities of your competition when it comes to sales, contracts and hiring practices. On the playing field, you certainly need to study your opponent's capabilities to enable your team to develop the best solutions based on your understanding of their strengths and weaknesses. In a high-threat travel/operational environment, all of this will help you survive a situation with the best possible outcome based on your understanding and preparation.

Wayne Tackett, is the Deputy Director of International Biosecurity and Biosafety Programs for AT-RISK International. In this role, he develops and implements biosecurity tactics, techniques and procedures. Mr. Tackett has over 35 years of experience with interpretation, analysis, training and implementation of biological and nuclear-related security concepts in the United States Department of Defense (DoD) as well as the private sector. He has authored DoD-level security manuals and regulations.

Funky Protein in Platypus Milk Could Beat Antibiotic Resistance

Source: <https://www.livescience.com/62030-platypus-milk-antibiotic-resistance.html>



Mar 15 – The milk of the [platypus](#) may contain a protein that can fight drug-resistant bacteria.

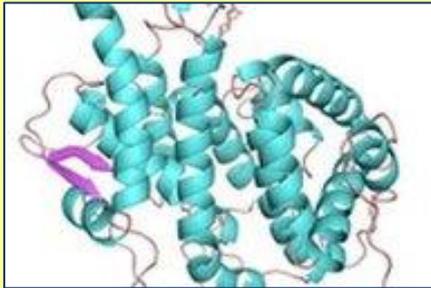
Now, a new analysis of that protein reveals that its shape is as bizarre as the shape of the animal that excreted it. The protein has a never-before-seen protein fold, now dubbed the "Shirley Temple" thanks to its ringlet-like structure, according to researchers from the Commonwealth Scientific and Industrial Research Organization (CSIRO) and Deakin University in Australia.



"[Platypuses are such weird animals](#) that it would make sense for them to have weird biochemistry," study researcher Janet Newman of CSIRO said in a statement.

Platypuses are monotremes, or egg-laying mammals. They suckle their





young, but they don't have teats or nipples. Instead, they "sweat" milk from glands on their bellies. Baby platypuses gather around their supine mother, lapping up puddles of milk from her skin.

Scientists have discovered a unique structure in a platypus milk protein that forms a 3D fold similar to a ringlet. *Credit: CSIRO*

Many types of mammal milk have antibacterial properties, according to a 2014 paper [in the journal Genome Biology and Evolution](#). Platypus milk may be particularly protective, though, because baby platypuses are exposed to many pathogens throughout their infancy. Their milk sits on their mothers'



exposed skin, and they live in microbe-rich burrows as soon as they hatch. [\[Mammal Milk: How the Fat Measures Up \(Infographic\)\]](#)

A spur on the heel of the male platypus. **BEWARE:** it can inject venom that causes ["long lasting excruciating pain that cannot be relieved with conventional painkillers."](#)

Newman and her colleagues replicated an unknown protein from platypus milk in a laboratory

and then studied its structure, discovering the unique ringlet shape. They reported their findings March 14 in the journal *Structural Biology Communications*.

"Although we've identified this highly unusual protein as only existing in monotremes, this discovery increases our knowledge of protein structures in general, and will go on to inform other drug discovery work done at the center [CSIRO]," Newman said.

Weaponised smallpox virus could infect thousands in major cities

Source: <https://www.telegraph.co.uk/news/2018/03/15/weaponised-smallpox-virus-could-infect-thousands-major-cities/>

Mar 15 – A weaponised smallpox virus could have a devastating effect on the world's major cities, infecting thousands because of the growing numbers of people with suppressed immunity, researchers have warned.

Smallpox, which was **eradicated globally in 1980**, is classed by the United States government as a category A bioterrorism agent because of its potential to spread rapidly, infect swathes of the population and incite widespread fear and panic.

Researchers at the University of New South Wales have used a mathematical model to predict how many people would become infected and how many would die in bioterrorism attacks on New York and Sydney. The data is likely to be scrutinised carefully by public health officials in Britain in the wake of the attack on Salisbury last week. Russia is known to hold samples of the smallpox virus.

Raina MacIntyre, professor of infectious diseases epidemiology and lead author of the study, said that since smallpox was wiped out, the population has changed greatly with many more



people living with conditions that suppress their immunity. They would be particularly at risk of catching and therefore spreading the disease, she said.

"The change in medical immunosuppression since 1980, when smallpox was eradicated, is huge. Diseases like HIV were virtually unknown at the time. The first heart-lung transplant had not yet occurred – transplantation medicine has progressed in leaps and bounds.

"We also have an ageing population, with age-related decline in immunity, and many more drugs for the treatment of cancer and autoimmune diseases which suppress immunity. No other model of smallpox has accounted for this," said Professor MacIntyre.

The researchers estimated that about one in five people in New York and one in six in Sydney have lowered immunity but say these are probably conservative estimates.

Large-scale smallpox vaccination programmes ended in the 1970s meaning that there is also very little immunity in the general population.

The researchers put in place a scenario based on the smallpox virus being released in a crowded place, such as an airport, and then worked out how it would spread and its effect on the population over 100 days.

They calculated that an outbreak would peak at 70 days after the first case, by which time it would have infected around 4,200 people in New York, killing around 1,200. In Sydney, around 2,200 people would be infected, with more than 600 deaths.

Professor MacIntyre said that high levels of immunosuppression have not been considered in planning for smallpox attacks, with emergency planning still "rooted in the past".

She added that the implications for London would be the same as for New York and Sydney, as it has a similar number of immunosuppressed individuals - about 17 to 20 per cent of the population.

"Large cities are at the greatest risk because of high population density, rapid spread of infection and greater difficulty in contact tracing of exposed people," she said.

She urged authorities to start thinking about which vaccines could be used on which populations and how fast an outbreak could spread, given the high numbers of people with suppressed immune systems.

Commenting on the research, Amesh Adjala, an infectious diseases expert and senior scholar at the Johns Hopkins Center for Global Health Security, said the prospect of smallpox attack would be a "national security event without precedent".

"It's considered a major threat. The virus has been eradicated from the planet and only exists in designated repositories in the United States and Russia. It's something people have thought about as a bioterrorism agent and that's why the US government has put in so much effort to develop new vaccines," he said.

Authorities would most likely tackle a smallpox epidemic with a technique called ring vaccination, where the contacts of those infected are vaccinated to form a ring protecting the rest of the population, said Dr Adjala.

However, he added that people with lowered immune systems would not be able to have the standard vaccine.

"With smallpox there has been an effort to develop new generation vaccines that are safe to use in the immuno-suppressed population. In the US they're not yet licensed to use however they are stockpiled in the strategic national stockpile. In the event of an outbreak they would probably be given an emergency use authorisation," he said.

The World Health Organization has stockpiled around 30 million doses of first, second and third generation vaccines.

Smallpox vaccine study yields favorable results

Source: <https://medicalxpress.com/news/2018-02-smallpox-vaccine-yields-favorable-results.html>

Feb 07 – Officials from Bavarian Nordic yesterday announced the results of a successful Phase 3 clinical trial led by USAMRIID that demonstrated the safety and efficacy of the company's investigational, non-replicating smallpox vaccine, IMVAMUNE.



The product is being developed as an alternative to the current U.S. licensed replicating smallpox vaccine, ACAM2000, which cannot be used by certain populations, including people with atopic dermatitis and HIV. It is already approved in Canada and the European Union.

USAMRIID study director Phillip R. Pittman, M.D., collaborated with the U.S. Defense Health Agency to enroll 440 subjects at a U.S. military post in South Korea. The randomized, open-label study had two co-primary endpoints. The first was to show that IMVAMUNE induced a non-inferior antibody response when compared with ACAM2000. In this study, the peak neutralizing antibodies induced by IMVAMUNE were shown to be twofold higher than those stimulated by ACAM2000, demonstrating a statistically superior immune response.

The second co-primary endpoint was to demonstrate an attenuation or prevention of a "take" in volunteers previously vaccinated with IMVAMUNE. Historically, a take is a measure of efficacy against smallpox in people vaccinated for the first time. It consisted of a pustule, scab and scar that developed on the skin following initial vaccination with replicating smallpox vaccines like ACAM2000. Following the second vaccination, those who had developed a protective [immune response](#) showed either a reduced take or none at all. This also was achieved in the USAMRIID-Bavarian Nordic study.

"If approved, this [vaccine](#) will have a direct impact on improving force health protection for U.S. Soldiers and other service members who are required to be immunized against [smallpox](#)," said COL Gary Wheeler, commander of USAMRIID.

According to Paul Chaplin, President and Chief Executive Officer of Bavarian Nordic, IMVAMUNE has been given to more than 7,800 subjects in 21 clinical studies, including this trial and one other Phase 3 study. He said the company plans to file a Biological License Application with the U.S. Food and Drug Administration later this year.

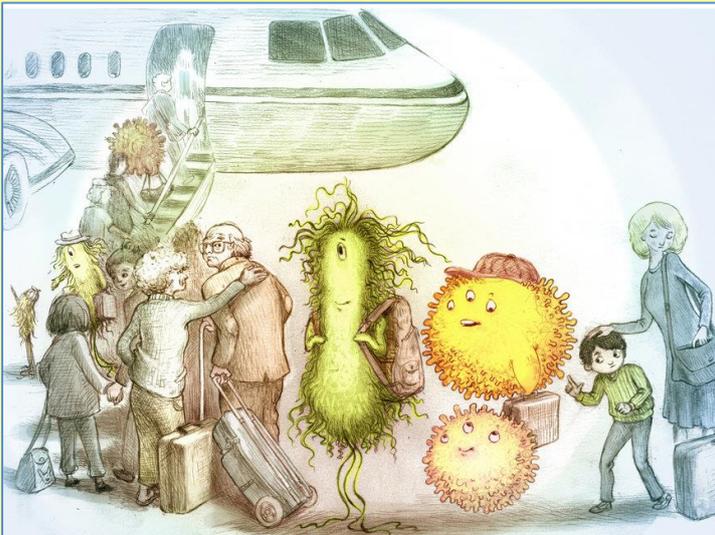
"This program has only been possible through the consistent and strong support of numerous U.S. Government agencies and demonstrates what can be achieved through a successful public-private partnership to protect the public from the deliberate release of the [smallpox virus](#)," Chaplin added.

When does a sick passenger on a plane pose a health risk?

Source: <https://www.cbsnews.com/news/when-does-a-sick-fellow-flier-pose-a-health-risk/>

Mar 19 – If you worry about catching a [nasty infection when you fly](#), a new study suggests your risk boils down to exactly how close you are to that sick passenger.

A row in front, a row in back, a couple of seats to the side, and your chances of getting sick jump, researchers report.



"Passengers should not, however, worry about getting sick from somebody coughing five rows behind," said lead researcher Vicki Stover Hertzberg, director of Emory University's Center for Data Science, in Atlanta.

In the study, funded by the airplane manufacturer Boeing, Hertzberg and her colleagues looked at the chances of an infectious passenger transmitting an illness to an uninfected person through large respiratory droplets within about a radius of a yard.

"Our particular model assumed an extraordinarily high infection rate," she said. "We quadrupled the rate of infection observed in a plane that sat on a tarmac without any air circulation for nearly five hours -- a worst-case scenario."

This model indicated that passengers at highest risk are those seated within a row of the sick passenger, or a seat or two to the side. These folks faced an 80 percent increased risk of catching whatever made the original passenger sick.



But, "the risk to passengers seated outside of this perimeter was very low," under 3 percent, Hertzberg said.

"Our model does not take into account the [risk of transmission](#) via [vomiting]," she added.

The researchers added that a sick crew member could infect close to five passengers per flight.

In addition to the tarmac scenario, the investigators took five round-trip cross-country flights. Four of the flights were taken during [flu season](#).

"We took environmental samples on all flights and tested them for 18 common [respiratory infections](#)," Hertzberg said. "All the samples were negative."

One infectious diseases expert said the findings should reassure fliers.

"This study tells us something we knew, which is that air filters on planes are about 95 percent effective," said Dr. Marc Siegel. He's a professor of medicine at NYU Langone Medical Center in New York City.

"You won't get sick simply by being in the airplane," he said.

To stay healthy while flying, Hertzberg said, you should wash your hands often and keep them away from your face.

"If you are a sick passenger, observe cough-sneeze etiquette -- cough or sneeze downward, into the crook of your elbow. As a courtesy to neighboring passengers, turn your air on," she said.

In addition, Siegel recommends keeping hydrated, because dry nasal passages are ripe for infection.

Another health expert, Dr. Sunil Sood, chairman of pediatrics at Northwell Health Southside Hospital in Bay Shore, N.Y., recommends carrying a face mask with you.

"I like to take a mask with me, and if my neighbor is coughing, I try to wear the mask," he said.

The report was published online March 19 in the *Proceedings of the National Academy of Sciences*.

Dr Muiris Houston: Bio-weapons are scarily easy to get and use

Source: <https://www.irishtimes.com/life-and-style/health-family/dr-muiris-houston-bio-weapons-are-scarily-easy-to-get-and-use-1.3433802>

‘The one that scares me to death, perhaps even more so than tactical nuclear weapons, and the one we have least capability against, is biological weapons.’

– Gen Colin Powell

Mar 27 – Recent events in Salisbury are not just a demonstration of the unforgiving nature of espionage, but are also a reminder of how difficult it can be to track down the exact type of weaponised chemical or biological agent thought to have been released into the environment.

Former Russian spy Sergei Skripal and his daughter Yulia were found slumped over a park bench earlier this month in the southern English town. They had been exposed to Novichok, a Cold War chemical agent of Russian military origin; the dust-like organophosphate neurotoxin had been placed in the ventilation system of Skripal's car.

In total, some 28 people have been affected by the chemical agent, most with minor symptoms. But there can be no doubt the intention was to kill the former spy and his daughter: the neurotoxin essentially overloads the nervous system with chemical messengers, putting it into overdrive and causing excessive salivation, muscle spasms, convulsions, paralysis, and heart failure.

Novichok is an example of a slow-release chemical weapon – one that uses chemicals to inflict death or injury; biological weapons involve the use of organisms to cause disease. Biological agents include bacteria, viruses, fungi, and toxins (poisons produced by animals or plants). In general, biological weapons have the ability to cause more widespread harm than chemical agents.

History is full of examples of biological weapons' use.

Before the 20th century, biological warfare took on three main forms: deliberate poisoning of food and water with infectious material; use of microorganisms or toxins in some form of weapon system; and the use of biologically inoculated fabrics such as blankets.

According to *Medscape* magazine, as far back as 400BC, Scythian archers infected their arrows by dipping them in decomposing bodies or in blood mixed with manure. In the 18th century, during the French and Indian War, British forces in [North America](#) gave blankets



from smallpox patients to the Native Americans to transmit the disease to tribes who had no natural immunity to the virus. And since the 1980s, terrorist organisations have used biological agents.

Biological agents

Biological agents are easy to acquire and use.

The small amount of agents necessary to kill hundreds of thousands of people in a metropolitan area make the concealment, transportation, and dissemination of biological agents relatively easy. In addition, biological warfare agents are difficult to detect or protect against; they are invisible, odourless, and tasteless, and their dispersal can be performed silently; their capacity to cause public panic and social disruption is high, and they require special preparatory action if public health authorities are to react appropriately.

It is estimated that at least 70 different types of bacteria, viruses and fungi can be formulated into weapons of mass destruction. These include anthrax, Q fever, typhus, smallpox, brucellosis, botulism toxin, dengue fever, Lassa fever and the Ebola virus.



French infantrymen, blinded probably by gassing, are escorted by a British soldier after the second battle of the Marne during the second World War. Photograph: Hulton-Deutsch Collection/Corbis via Getty Images

The problem from a treatment perspective is that scientists have created antibiotic resistant strains of some of these bacteria. Viruses and toxins can also be genetically altered to heighten their infectiousness, thus rendering vaccines less effective.

It is standard practice to provide broad-spectrum intravenous antibiotics as initial treatment for victims when a biological agent is suspected. And vaccinations are available for anthrax, botulinum toxin, tularaemia, plague, Q fever, and smallpox.

To be an effective weapon, airborne microbes must be dispersed as fine particles less than 5 micrometres in size. The dusty particles of Novichok placed in the air vents of Skripal's [BMW](#) would have been this size. All it took was some normal inspirations of air inside the car for the horrible cascade of poisonous effects to begin.

It really was a frightening illustration of TS Eliot's words: *"I will show you fear in a handful of dust."*

