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Conference Report

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RUSI Conference Report, October 2020



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# Countering CBRN at Home and Abroad

**T**HE USE OF chemical, biological, radiological and nuclear (CBRN) weapons is widely considered to be a serious breach of international norms, and constitutes a violation of international law for those states who have signed treaties prohibiting their use. Nevertheless, chemical weapons have been employed repeatedly by the Assad regime in Syria, while the Russian military conducted a chemical weapons attack on British soil in 2018, killing a civilian in Salisbury. Meanwhile, the coronavirus pandemic, though natural in origin, has demonstrated the widespread damage that biological weapons could cause. RUSI – in partnership with the Institute of Royal Engineers and Royal Engineers Historical Society (REHS) – held a virtual conference on 23 September to understand CBRN threats in the contemporary operating environment, and what must be done to address them.

The conference was introduced by Mungo Melvin, chair of the REHS, who highlighted the fact that the Royal Engineers, responsible for chemical warfare during the First and Second World Wars, were now again the defence lead for CBRN. CBRN, he stressed, remained very much a joint, combined arms and multi-agency business, depending on industrial and scientific support, and international cooperation. These themes were drawn on throughout the conference.

In his keynote address, Professor Gary Sheffield argued that chemical weapons are simultaneously an overrated and underrated threat. Based on analysis of their battlefield impact during the First World War, he argued that the popular perception of the deaths caused by gas warfare is significantly inflated. However, the psychological impact made it a highly effective battlefield weapon, especially when used in combination with conventional high explosives and ground manoeuvre to seize positions. Sheffield urged participants not to see chemical warfare as isolated from other methods, and instead assess the logic of its use in the context of combined arms operations.

Dan Kaszeta followed with an assessment of the technological, fiscal and tactical hurdles to the employment of chemical weapons today. He argued that chemical weapons tend to lack discrimination or predictability, making them ill-suited to modern military use. The complex supply chain and delivery systems required to employ nerve agents render them uneconomical as compared to conventional military capabilities, and the threat could be mitigated fairly easily by trained and well-equipped troops. However, along with his fellow panellist Amy Smithson, there was agreement that the use of lower-grade chemical weapons – including commercially available substances – is affordable and becoming more accessible. The use of these weapons by states would likely be tactically specific, but non-state actors have a strong interest in such substances, not least because of the terror they invoke in civilian populations. Smithson

added that one exception to the constraints elaborated was Russia, which appears to have an undeclared chemical weapons programme that should be of critical concern.

Smithson explored bio-weapon threats, noting that tactical bio-weapons are very difficult to deliver on the battlefield, but that weapons targeting the economy, or able to spread within a population, are viable and difficult to attribute or initially detect. Most alarmingly, she explained that while there is an international framework for regulating the storage of high-risk chemicals, and monitoring the development of chemical weapons, no comparable body exists governing bio-weapons. As a result, much less is known about what states or non-state actors have developed, and under what conditions they might be employed. North Korea, Russia, Egypt and Israel were flagged as states where there is either evidence of established capability, or a concerning lack of information.

The war in Syria has furnished an extensive set of examples as to how chemical attacks can be effective in modern warfare. Colonel Hamish de Bretton-Gordon described the systematic employment of chemical agents – primarily chlorine and mustard gas – by Russian and Syrian government forces to clear urban strongholds. The failure of the West to punish the use of nerve agents in 2013 after the flagrant crossing of the Obama administration's infamous 'red line' has led to a weakening of the norms against chemical weapons use to the point where most chemical weapons attacks receive minimal public attention unless nerve agents are involved. The result has been their normalisation as a component of urban warfare. The battlefield effect is the demoralisation of civilians and the overwhelming of medical facilities, leading to capitulation. Given the costs associated with assaulting urban terrain, it is entirely plausible that chemical weapons use will remain an element of urban warfare, if not a growing one.

The unwillingness to enforce international norms against chemical weapons use has in part stemmed from the blizzard of disinformation that has descended following attacks. The coordination of chemical attacks with disinformation has marked almost all chemical weapons incidents in Syria. Nick Waters explained how the facts of a given incident can often be established using open source information within three days. However, ensuring the proliferation of accurate information requires sustained release and mutual amplification of content produced by reliable sources, as well as the reinforcement of arbiters of truth, such as the Organisation for the Prohibition of Chemical Weapons. He also reiterated how demoralisation is the primary battlefield effect of chemical weapons.

Responding to a given incident – whether on the battlefield or home soil – largely depends on accurate information as to what kind of weapon is being used. Colonel de Bretton-Gordon described how the lack of sophisticated and networked sensors meant that the Syrian opposition would often be caught out when new kinds of chemical weapons were employed. This was a theme developed by Colonel Klaus Werner Schiff, who detailed how the Bundeswehr is expanding its counter-CBRN capability from two battalions to three regiments and is seeking to employ more sophisticated autonomous and remote sensors to create a dense detection network, enabling CBRN protection of forces in contact. He also outlined how the force is aiming to modernise to attract new talent, given the significant scientific expertise required to conduct

counter-CBRN operations. The Bundeswehr, while trying to network sensors across the force, is nevertheless pursuing a 'prevention before protection' methodology in warfighting, with the aim of disrupting the use of CBRN capabilities before they are employed. In the context of defending its domestic territory, the Bundeswehr has had to adjust its approach to allow military capabilities to be used to support the civil power.

The challenge of how to balance specialist military responsibilities with the protection of deployed forces and the civil population was prominent in presentations from British officers. Lieutenant Colonel David Robbins emphasised how military CBRN specialists would quickly be overwhelmed if they were seen as the only individuals qualified to respond to CBRN incidents. In a military context, dependence on these specialists would rapidly paralyse the force. Instead, military specialists should distribute themselves throughout units to advise and act as catalysts to respond most appropriately, saving specialist capabilities for where there is significant uncertainty as to the nature of a threat, and providing the best opportunity to mitigate it.

The need to have standardised training across the force to respond to CBRN incidents without over-committing specialist capabilities was also explored by Major General James Illingworth, who outlined how the British Army is updating its counter-CBRN doctrine. This has been prompted by the transfer of responsibility for counter-CBRN from the Royal Air Force to the British Army, though Major General Illingworth emphasised that it remained a joint capability. He also highlighted the availability of experts within the Land Warfare Centre to support civilian departments and cross-government activity, encouraging their employment.

The practicalities of providing Military Aid to the Civil Authorities (MACA) was outlined by Lieutenant General Tyrone Urch. Drawing on his experience from the Russian nerve agent attack in Salisbury and the military response to coronavirus, he emphasised the importance of embedding military planners into local government to liaise with civilian bodies and to coordinate with those in direct contact with affected civilians. He also stressed the importance of having a nationally dispersed portfolio of military bases from which to operate, to ensure local connections and available military infrastructure. This was consistent with observations by Colonel Werner Schiff regarding the need for a wider geographical spread of counter-CBRN units across Germany to ensure responsiveness. Lieutenant General Urch highlighted how the scale of activity required made delegation of permissions from the Secretary of State crucial to the efficient running of his operations centre. Finally, he highlighted the work of the Information Manoeuvre Group in gathering relevant data and providing timely and reliable information to government and local authorities. Despite these activities, Lieutenant General Urch stressed that the military should be the last resort, and that its efforts have to be aimed at bolstering civilian resilience to enable the military to focus on its core functions.

The challenge presented in protecting the homeland and forces deployed was also raised by Rebecca Hersman, who argued that there is very little functional difference anymore between 'home and away', especially with CBRN incidents, where contamination, fear, diplomatic repercussions and disinformation all flow across borders. She also argued that, given the need to maintain military capacity, a dichotomy between civilian and military bodies is unhelpful

when it comes to responding to domestic CBRN incidents. She pointed out that the discussion of CBRN threats was too often technically oriented, when responses to CBRN incidents tended to encompass all government departments, and be accompanied by significant competition in the information space. She encouraged governments to adopt a four-stage approach to deterring CBRN attacks by building a 'system of restraint' comprising taboos, norms, costs and resilience. 'Taboos' mean ensuring that there is a widespread public understanding that CBRN attacks are unacceptable, which imposes a high diplomatic and political cost on their use. 'Norms' ensure international legal frameworks that preserve freedom of action to respond to incidents and punish use. Imposing costs relies on the threat of retaliation. 'Resilience' means making the state a hard target with effective mitigations, so that adversaries will struggle to justify the expense of employing CBRN capabilities versus the damage inflicted.

Resilience extends far beyond providing medical support to affected individuals and securing contaminated sites. The impact of a CBRN incident on a local economy can be devastating – especially for small and medium-sized businesses. Julian Enoizi outlined how the UK has about £2.2 trillion worth of assets that could be affected by terrorism. The progressive development of reinsurance structures means that government is insulated from up to £10 billion of damage from conventional terrorism, but CBRN incidents pose a very significant problem for insurers. This stems from a lack of understanding as to the long-term costs of decontamination or the duration of support required to affected areas. For this reason, PoolRe has partnered with government and academia to conduct extensive modelling of CBRN impacts across the UK, and is now extending this work to explore means of insuring against pandemic risk. It was clear that the scale of cost is not supportable solely by the insurance industry and requires a close partnership between industry and government. Nevertheless, Enoizi hopes to make modelling available to government and the insurance industry to improve understanding and support the assessment of risk.

The conference closed with a keynote presentation by Lord Mark Sedwill shortly after he relinquished the dual roles of national security advisor and cabinet secretary. Lord Sedwill outlined how the UK had responded to the Salisbury incident and the lessons from it. He emphasised the importance of quickly identifying the cause of an incident, and calibrating responses to the specific threat. This chimed with earlier presentations from Colonel de Bretton-Gordon and Hersman, who argued that personal protective equipment needed to match the threat, rather than taking a 'one suit for all situations' approach.

Lord Sedwill also noted that in many cases local authorities would be the first on the scene – often being unaware of the threat. This requires clear lines of responsibility and communication to bring relevant assets to bear as soon as the nature of an incident can be established. Lord Sedwill also explained that a pure law enforcement approach in responding to such an incident is too slow, and that intelligence and diplomacy need to let the facts be made public as quickly as possible to get ahead of disinformation and to impose a tangible cost. This was something that he said had not been achieved in response to the assassination of Alexander Litvinenko.

Finally, Lord Sedwill reiterated the need for multinational agreements to uphold norms against CBRN use. Although the failure to respond to CBRN use in Syria led to the normalisation of chemical weapons so that their future employment was far more likely, he urged a stronger commitment to international frameworks designed to increase transparency and constrain the employment of CBRN capabilities, since the threat could be far worse than what has occurred in Syria or Salisbury.

The world is currently entering a new era of great power competition, and as multilateral cooperation is challenged, new international norms are emerging. There is currently a window of opportunity to shape the grammar of the next era of competition. Whether CBRN capabilities are a part of future warfare is likely to be determined by the deterrence postures, norms and resilience established today. It is therefore a vital time to engage and be proactive in confronting this threat, both at home and abroad.

# About the Author

**Jack Watling** is Research Fellow for Land Warfare at RUSI. Jack has recently conducted studies of deterrence against Russia, force modernisation, partner force capacity building, the future of corps operations, the future of fires, and Iranian strategic culture. Jack's PhD examined the evolution of Britain's policy responses to civil war in the early 20<sup>th</sup> century. Prior to joining RUSI, Jack worked in Iraq, Mali, Rwanda, Brunei and further afield. Originally a journalist, he has contributed to *Reuters*, *The Atlantic*, *Foreign Policy*, *The Guardian*, *Jane's Intelligence Review*, *Haaretz*, and others. Jack was shortlisted for the European Press Prize Distinguished Writing Award in 2016, and won the Breakaway Award at the International Media Awards in 2017.