Resurgence of Chemical Weapons as an Instruments of Terror

Old Weapons – New Uses

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Terrorist Use of WMD
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Resurgent interest in chemical weapons?

- **Terrorism with CW**
  - Aum Shinrikyo (Japan, 1990 – 95)

- **Use by terrorist entities as means of warfare**
  - Opportunistic use of industrial toxic chemicals
  - Use of indigenously produced warfare agents

- **Military use (Syria, December 2012 - Present)**
  - As a battlefield weapon for tactical use (sarin, chlorine)
    - Up to 2017
  - As a strategic instrument of terror (mostly chlorine)
    - Especially from late 2017 onwards
  - As a tool of strategic communication
    - Occasionally since acceding to the Chemical Weapons Convention (CWC, October 2013)

- **Use of military-type of agents as assassination weapons**
  - Aum Shinrikyo (against opponents; member executions)
  - Kuala Lumpur, Malaysia (February 2017)
  - Salisbury, UK (March 2018)
Aum Shinrikyo (Japan – 1990-95)

- **Goal**: Take over government of Japan
- **Development of wide array of weaponry + large military force**
  - CB agents intended to destabilise society (provocation of Armageddon)
  - Major CB research, development and production programme
- **Sarin attacks in Matsumoto (1994) and Tokyo (1995)**
  - Matsumoto: 8 fatalities; about 600 injured
  - Tokyo: 13 fatalities; 5500 other casualties (a large majority psychological distress)
- **Outcome**: failure
  - Strategic goals never attained
  - Both sarin attacks were tactical operations to thwart threats against cult
  - Biological weapon programme never produced a usable agent, even on research level
  - Cult dismantled; leaders arrested and tried (and now executed)
Terrorism or method of warfare?

• **Repeated use**
  - Several attacks involving chlorine attributed to *Islamic State in Iraq and the Levant* (ISIL) since the 2\textsuperscript{nd} half of 2014
    - Most in Syria, but also in Iraq
  - Three incidents involving mustard agent (Iraq and Syria)
  - ISIL precursor organisation – *al-Qaeda in Iraq* (AQI) – organised over 20 chlorine attacks in Iraq between October 2006 and July 2007

• **Purpose**
  - Terror played a significant role in AQI and early ISIL attacks
    - Targeted civil population to subdue local inhabitants (AQI & ISIL)
    - Used against combatants to frighten and demoralise combatants defending positions
  - From early 2015 on, increasing indications that toxic chemicals began supporting military operations
    - Initially chlorine released via Improvised Explosive Devices (was not very effective)
    - Isolated testing involving single mortar rounds already in autumn 2014
    - Late spring 2015: more concentrated attacks with many mortar rounds in support of combat operations
  - Use of mustard agent confirmed by OPCW, but purpose unclear
    - Isolated incidents
Opportunistic use of industrial toxic chemicals

• **Basic characteristics**
  • No autochthonous development or production of the toxic agent
  • Usually obtained from industrial production plants or storage sites
  • Attacks end after stockpile of toxic agent has been depleted

• **Challenge**
  • Other types of attack have involved sabotaging storage facilities, deliberate release into the environment (industrial action), or deliberate targeting of such installation by artillery (e.g., around Sarajevo)
  • In criminal or terrorism cases, occasionally off-the-shelf poisons (e.g., rodent exterminators) or caustic substances (e.g., acid attacks) have been applied
  • More toxic substances than those usually considered as warfare agents become possible weapons
    • E.g. in the Middle East *phosphine* – a chemical belonging to the nerve agent family – is widely used in agriculture as rodent pesticide or fumigant
Weapon innovation

- **AQI (October 2006 – July 2007)**
  - No development or production of the agent (chlorine)
  - Obtained from water purification installations and captured lorries
    - Attacks ceased when sources depleted and after the Iraqi government stopped chlorine transport from Jordan and Syria
    - Consequence: upsurge in cholera cases in and around Baghdad
  - However, some development in dissemination technology
    - Initially, explosives too strong and destroyed chlorine; casualties from debris
    - Spring 2007: explosives more calibrated; some casualties suffering from chlorine inhalation

- **ISIL (2014 – 2016)**
  - Opportunistic use of chlorine in Syria, but less certainty about provenance
    - First reports were not unlike those about AQI
  - Autumn 2014: reports from Iraq suggesting testing of different dissemination devices, including mortar rounds
  - Late spring 2015: several reports of attacks involving many chlorine-filled mortar rounds, some confirmed by the OPCW Fact-Finding Mission (FFM)

- **Mustard agent**
  - 3 attacks attributed to ISIL in Iraq and Syria
  - Initially, many hypotheses about origin (production in Mosul, al Muthanna CW site in Iraq, recovered battlefield munitions from Iran – Iraq war, former Syrian stockpile, etc.)
  - OPCW FFM confirmed indigenous production, but:
    - How large was the programme?
    - What was its production capacity?
    - Who and how many persons were involved?
Chlorine use by Syria: Strategic tool of terror

- **Strategy emerged after Syrian forces started to regain control over territory lost to insurgents and ISIL**
  - First observed in 2017; increase of incidents in late 2017 and 2018

- **Implementation**
  - Encirclement of insurgent forces
  - Large civilian population in encircled pockets
  - After military pressure has been maximised, offer to insurgent forces to negotiate a withdrawal for them and trapped civilians in their area
  - If an insurgent group accepts, people may evacuate the pocket
  - If an insurgent group refuses, its area of control is targeted with chlorine
  - Evacuation conditions usually accepted after a few chlorine barrel bomb attacks
  - Government forces take control over area
  - Next military target: Defenders are forewarned (psychological impact)

- **Rotterdam, 14 May 1940: a precedent**
  - Nazi Germany air force eradicated the city
  - Threat of repeat actions if Netherlands government were to refuse to surrender
  - Netherlands government surrendered
Syrian CW use: Strategic communication

- **Communication to own population**
  - Demonstration of strength
  - Despite international pressure, the government resists and demonstrates that it is in charge

- **Communication to insurgents**
  - The government is in charge
  - The government will defeat the insurgency whatever it takes
  - Communication of a certain sense of impunity
  - Method of forewarning insurgents of fate if they do not evacuate areas

- **Communication to the international community**
  - We shall be victorious
  - After victory, there will be no criminal repercussions
    - Especially from late 2017 onwards
  - We retain total sovereignty over our actions, despite CWC accession
  - Pushing international response capacity (via OPCW, UNSC) to its limits → Russian vetoes
  - Full denial of events / claim of insurgent responsibility: public opinion battle

- **Communication strategy may explain isolated incidents of sarin use**
  - E.g. Khan Sheikhoun, 4 April 2017 (led to end of OPCW – UN Joint Investigative Mechanism)
Assassination with military-type CW

• **Aum Shinrikyo use of VX, December 1994 – January 1995**
  • 1 person died; 2 other ones survived attacks (suspected spy; dissidents)
  • Initially, investigators suspected use of organophosphate compound, but did not identify the VX agent until after the arrest of cult member later in 1995
  • Reported execution of 20 cult members with VX

• **Murder of Kim Jong-nam, Malaysia, 13 February 2017**
  • Ordered by the DPRK (not a party to the CWC)
  • VX applied by two women, possibly in binary form (women had time to wash their hands afterwards; walked away from airport; no reports of poisoning)
  • Malaysia conducted investigation independently
  • OPCW involvement limited to supply of VX reference kits after technical assistance request

• **Assassination attempt on Sergei & Yulia Skripal, UK, 4 March 2018**
  • Russian military intelligence implicated (Russia is party to the CWC)
  • Nerve agent used identified as belonging to the *Novichok* family
    • Developed and produced (not stockpiled) by USSR in late 1980s
    • Relative unknown agent; few refereed research papers; not on CWC or Australia Group control lists
  • UK conducted domestic forensic, criminal and intelligence investigations
  • UK requested OPCW technical assistance to independently analyse and identify nerve agent used
  • UK chose not to invoke other procedures (e.g. under CWC Article 9) to address accusations against Russia
Some implications for the OPCW

• **Insurgent use of CW: Awkward problem from a legal perspective**
  • Use of CW by a non-state actor against another non-state actor on the territory of a State Party that is not in control of that territory
  • Problems for
    • Investigation of allegations
    • Attribution of responsibility
    • Sanctioning perpetrators (domestic penal law; international criminal law)
    • Scope of action for States Parties to CWC; UN Security Council

• **Near-universality of the CWC**
  • Risk that States Parties, nationals from States Parties or entities operating from the territory of States Parties play a role in the acquisition of CW and preparations for their use by insurgents *is not beyond imagination*
    • Already several allegations to that effect related to the Syrian civil war since late 2012
  • The problem needs to be characterised, assessed, and if necessary, addressed
    • For the future of the treaty regime, refutation is as important as confirmation

• **Assassination with CW**
  • Fine line between domestic crime and CWC violation (consequence of CW definition)
  • OPCW only becomes involved following state party request
    • Victim state party determines whether to involve OPCW and for what purpose
Recalling where science, industry and military art converged
Challenging entrenched positions

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