

# Resurgence of Chemical Weapons as an Instruments of Terror

*Old Weapons – New Uses*

Dr Jean Pascal Zanders

The Trench

*Terrorist Use of WMD*

Centre of Excellence – Defence Against Terrorism, Ankara, 11 December 2018

# 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<sup>nd</sup> 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



# THE TRENCH

**Recalling** where science, industry and military art converged  
**Challenging** entrenched positions

[www.the-trench.org](http://www.the-trench.org)

*E-mail*

[jpzanders@the-trench.org](mailto:jpzanders@the-trench.org)