

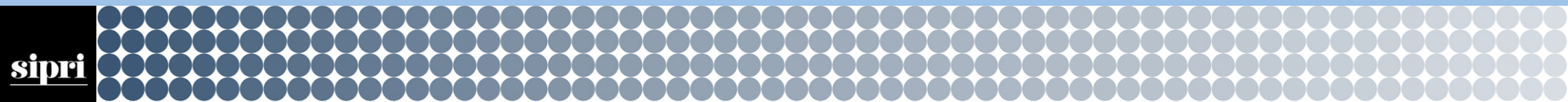
Use of chemical weapons in Syria and its repercussions for the 'New World Order'

*25th ISODARCO summer course on: International Security in
a Rapidly Evolving Political and Technological Environment*

Eastern Mediterranean University

Famagusta, Cyprus

10-15 July 2017



1. Purpose

- To review lead-up to Syria's accession to the 1993 Chemical Weapons Convention (CWC).
 - To review allegations of the use of chemical weapons in Syria.
 - To suggest implications for international peace and security.
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- Please see end presentation slides for acronyms listing.

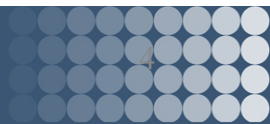


2. Definitions

- WMD
 - The linkage made by the US Government between chemical, biological and radiological weapons dates to at least July 1948 when the Joint Chiefs of Staff “recognized the necessity” of combining the weapon types in military planning since:
 - “these three weapon systems have similar potential in that they could be employed to contaminate areas for neutralization or mass casualty effect without materiel destruction.” (p. 17, Report of the Secretary of Defense’s Ad Hoc Committee on Biological Warfare, 11 July 1949)

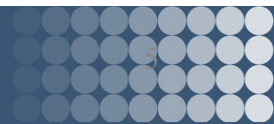
3. Definitions, cont'd

- Weapon of Mass Destruction (WMD)
 - WW II context (see previous slide).
 - S. Carus revised 2012 US NDU study (http://ndupress.ndu.edu/Portals/68/Documents/occasional/cswmd/CSWMD_OccationalPaper-8.pdf).
 - WMD as essentially: i. a synonym for NBC, ii. CBRN, iii. CBRNe; iv. killing large nos. of people; v. mass destruction or effect.
- Nuclear weapons
 - Fission or fusion (thermonuclear)
 - Gun design, implosion design
 - Sub-critical experiments allowed under Comprehensive Nuclear-Test Ban Treaty (CTBT)
 - Non-self sustaining chain reaction ('Fizzile')



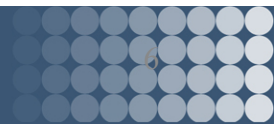
4. Definitions, cont'd

- Biological weapon
 - 1972 Biological and Toxin Weapons Convention
 - General purpose criterion (GPC)
- Chemical weapons
 - 1993 Chemical Weapons Convention
 - GPC



5. Effects

- General observations
 - Chronic versus acute toxicity
 - Disease burden context
 - Environmental toxic chemicals exposure context
- Biological agents
 - Bacteria, viruses, rickettsia, toxins
- Chemical agents
 - Traditional state programme agents (sarin, VX, HD)
 - Toxic industrial chemicals (TICs)
 - Central nervous system (CNS)



IT SMELLED
LIKE



FLYPAPER



CHLORPICRIN

MRTC
BARKELEY,
TEXAS

COUGH, CRY, VOMIT:

: QUIET, WASH EYES, WARMTH

LEWISITE



smells like

GERANIUMS

NASAL IRRITANT, SKIN BURNS • GAS MASK,
PROTECTIVE CLOTHING • DARK GREEN OILY LIQUID

MRTC • BARKELEY • TEXAS

MUSTARD GAS



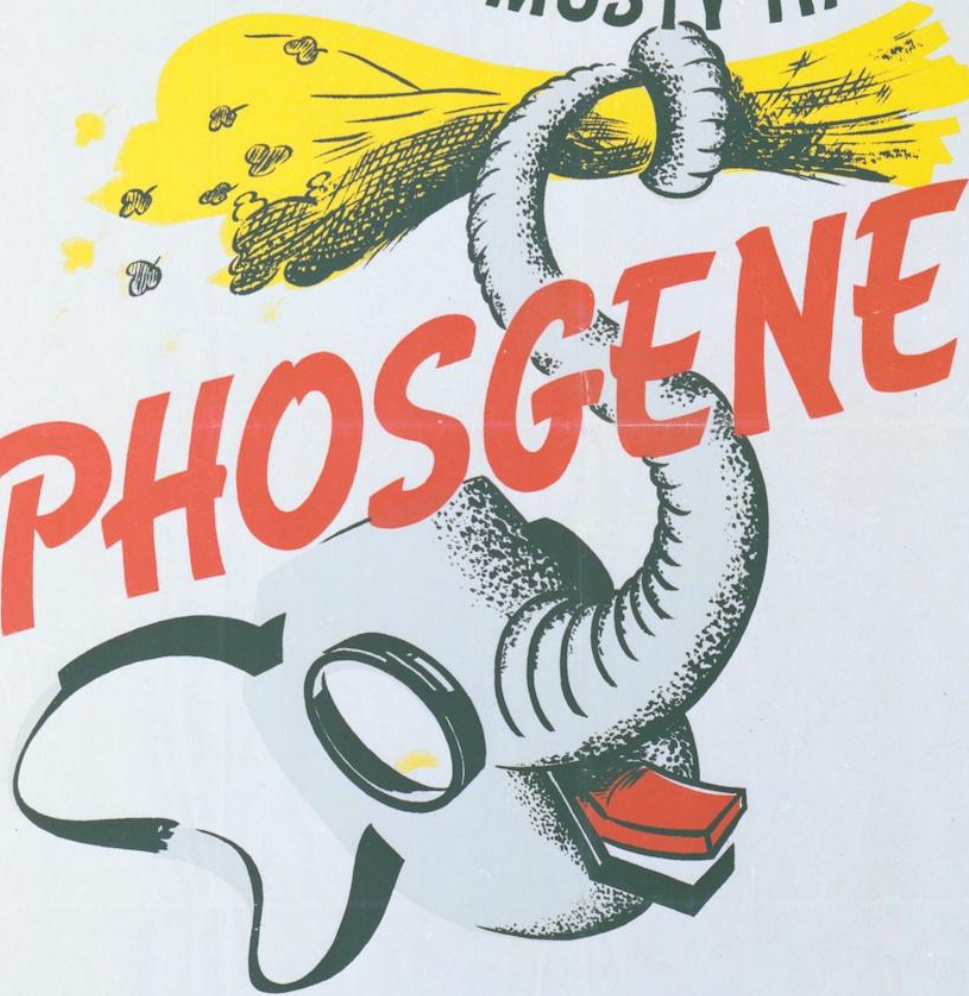
Smells like
GARLIC...

**HORSERADISH · MUSTARD
STRONG VESICANT**

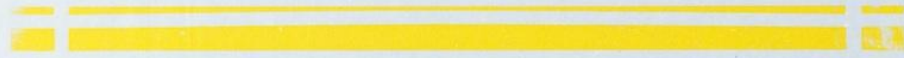
MRTC ART DEPT.
CAMP BARKELEY,
TEXAS

SMELLS LIKE MUSTY HAY-

PHOSGENE

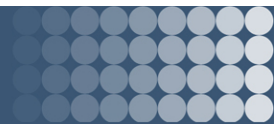


OR GREEN CORN • LUNG IRRITANT • CAUSES
INCREASED DOPEY FEELING • COLORLESS GAS



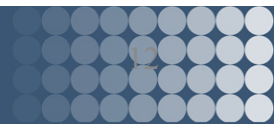
10. Actors in Syria CW context

- Organisation for the Prohibition of Chemical Weapons
 - Fact Finding Mission (FFM)
 - Declaration Assessment Team (DAT)
- UN Security Council
- OPCW-UN Joint Investigative Mechanism (JIM) in Syria (7 August 2015-present).
- UNODA, UNOPS (logistics, analysis, etc.)



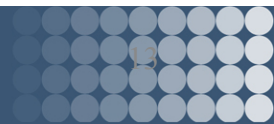
11. Syria developments

- Conflict may be dated to Mar. 2011; CW use allegations since 2012.
- Longstanding allegations of CW programme and stockpile (centred on sulphur mustard, sarin & VX)
- 23 July 2013 Syrian MFA press briefing
- Reaction
 - Red line warnings,
 - Consultations and exercises for identifying and securing CW-related sites
 - Emphasis by some on 1925 Geneva Protocol



12. Syria-related events, cont'd

- March 2013 request by Syrian Government to UN Sec.-General to investigate alleged CW use (chlorine).
- UN Secretary-General mechanism
 - Revised technical guidelines
 - Updated list of technical experts
 - Support of other international bodies (e.g., OPCW, WHO)
 - Team headed by Åke Sellström based in Cyprus
 - Relevant actors unable to agree and implement mandate (until August 2013).



13. Initial declaration (‘Progress in the elimination of the Syrian chemical weapons programme’, Note by the Director-General, EC-M-34/DG.1, 25 Oct. 2013)

- 41 facilities at 23 sites,
- 18 chemical weapon production facilities,
- 12 chemical weapon storage facilities,
- 8 mobile filling units, 3 chemical weapon-related facilities,
- 1000 tonnes of category 1 chemicals (mainly precursors),
- 290 tonnes of category 2 chemicals,
- 1230 unfilled munitions and 2 cylinders not claimed by the Syrian Government and possibly filled with chemical weapons.
- site diagrams for chemical weapon storage facilities.

14. Syria and OPCW

- OPCW involvement
 - Russian-US Framework document of 14 Sep. 2013
 - First OPCW mission and joint OPCW-UN mission established Oct. 2013
 - OPCW Fact Finding Mission (FFM) and Declarations Assessment Team (DAT)
- UN Security Council Res. 2118 (2013)
 - UN-OPCW joint inspection team mandate ended 30 Sep. 2014
- UN Security Council Res. 2235 (2015)
 - Initial 12-month joint UN-OPCW team est. to attribute responsibility. Now extended through 2017.
 - Multiple actor use of chlorine and HD

15. Maritime operations

- 'The Moscow Plan' (27 Dec. 2013)
 - OPER RECSYR, Task Group 420.01, CTF-64
- National contributions
 - UN Trust Fund
 - OPCW Syria Trust Fund
 - In-kind contributions (multilateral/bilateral)



MV Cape Ray

(The container ship M/V Cape Ray departs Portsmouth, Va., Jan. 10, 2014, for sea trials. U.S. Navy photo by Petty Officer 2nd Class Jared Walker)



HDMS Esbern Snare

Absalon class support ship

Builder: Odense Steel Shipyard

Commissioned: 18 April 2005

Displacement: 6401 tonnes [fully loaded]

Draft: 6.3 m

Complement: 99 + 70 personnel

Boats carried: 2 x SB90E LCP [or similar]; 2 x RHIBs [or similar]

Aircraft carried: 2 helicopters

Saunders, S., *IHS Jane's Fighting Ships: 2013-2014* (IHS Jane's: Coulsdon, Surrey, 2013), p. 196.

The Storebro [big bridge] SB90E was originally developed by Swedish yacht company for military unit insertion and medical evacuation. It is currently sold on the civilian market, as well as to various navies (SB90H).



RS Pyotr Veliky

RS Pyotr Veliky [Peter the Great] [formerly the Yuri Andropov]

1 Kirov (Orlan) class battle cruiser (project 1144.1/1144.2) (CGHMN)

Builder: Baltic Yard 189 (St. Petersburg)

Commissioned: 9 April 1998

Displacement: 24690 tonnes [fully loaded]

Draft: 9.1 m

Complement: 744 (82 officers, 18 air crew)

Aircraft carried: 3 helicopters



CS Huangshan

13 + 7 Jiangkai II (Type 054A) class (FFGHM)

Builder: Huangpu Shipyard (Guangzhou)

Commissioned: 18 April 2005

Displacement: 3963 tonnes [fully loaded]

Draft: 5 m

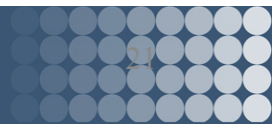
Complement: not specified

Aircraft carried: 1 helicopter



20. Operational factors

- Rules of engagement (ROEs)
- Standard operating procedures (SOPs)
- Operational environment



21. The 9 JIM cases (24 Aug. 2015 initial)

Kafr Zita, Hama Governate, 11 Apr. 2014

Kafr Zita, Hama Governate, 18 Apr. 2014

Talmenes, Idlib Governate, 21 Apr. 2015 (SY)

Al-Tamanah, Idlib Governate, 29 and 30 Apr. 2014

Al-Tamanah, Idlib Governate, 25 and 26 May 2014

Qmenas, Idlib Governate, 16 Mar. 2015 (SY)

Sarmin, Idlib Governate, 16 Mar. 2015 (SY)

Binnish, Idlib Governate, 24 Mar. 2015

Marea, Aleppo Governate, 21 Aug. 2015 [ISIL HD-use]



22. OPCW DAT and FFM

- Confirming full nature of and role (if any) of the Syrian Scientific Studies and Research Centre (SSRC).
- Clarifying significance of OPCW team sampling and analysis possibly indicative of undeclared chemicals.
- General absence of programme documentation.
- June 2017 FFM report on 4 April 2017 sarin attack (see below).



23. 4 April 2017 sarin attack

- C. 86 people died in Khan Shaykhun (concurrent to Syrian Sukhoi SU-22 attack).
- 7 April US Tomahawk strike against Shayrat Air Base.
- Special OPCW Executive Council meeting convened on 13 April.
- OPCW Executive Council negative vote on Iranian-Russian proposal to form new investigative body on 20 April.
- 29 June 2017 FFM report (S/1510/2017).
 - No site access, observed autopsies in 3rd country.
 - No conclusions on type of munition.
 - Biomedical, soil and rock samples positive.

24. Competing narratives of 4 Apr. attack

- Time of day (morning/noon)
- Wind direction
- Samples (environmental, biomedical):
 - nature and chain-of-custody discussions.
 - origin of 'sarin-like'.
- Air bomb, rocket, IED
 - Remnants?
 - If air bomb: at what height did it explode?
- Crater origin of casualties or nearby 'warehouse'?
- Lack of prior understanding/confirmation that non-state groups have used sarin in Syria.
- Is hexamine solely associated with Syrian Government CW programme (cf, declarations to OPCW)?
- Data overload + role of social media.
- False flag operations:
 - Any? How many? How representative in totality of incidents?

25. CWC-relevant expertise

- Arms control verification.
- Chemistry.
- Convergence between chemistry and the life sciences.
- Decontamination methods and strategies.
- Engineering.
- History.
- Industrial process design and control.
- Intelligence methods.
- International relations.
- Law.
- Medicine.
- Particulate modeling.



26. Conclusions

- Drawing political, legal and criminal conclusions from large data sets that contain errors.
- Linking and interpreting issues to support preferred geopolitical outcomes.
 - Sending and receiving signals.
 - ‘Reductionist’ challenging of all aspects of a case vs. the need to understand overall significance of evidence.
- Norm against chemical warfare weakened?



27. Detonation pool

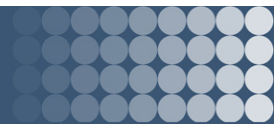


28. Non-leachable vitrified glass



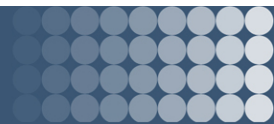
29. Acronyms

- CBRN – Chemical, Biological, Radiological, Nuclear
- CNS – Central Nervous System
- CTBT – Comprehensive Nuclear-Test-Ban Treaty
- CW—Chemical Warfare/Chemical Weapon
- CWC—Chemical Weapons Convention
- DAT—Declaration Assessment Team
- FFM—Fact-Finding Mission
- GPC—General Purpose Criterion
- IAU—Investigation of Alleged Use
- JIM—Joint Investigative Mechanism in Syria



30. Acronyms

- MFA – Ministry for Foreign Affairs
- NBC – Nuclear, Biological, Chemical
- NDU – National Defense University
- OCAD—OPCW Central Analytical Database
- UNODA – United Nations
- UNOPS – United Nations Office for Disarmament Affairs
- OPCW—Organisation for the Prohibition of Chemical Weapons
- ROE – Rules of Engagement
- SOP – Standard Operating Procedure
- TIC – Toxic Industrial Chemical
- WMD – Weapons of Mass Destruction



*Teşekkür ederim.
Thank you.*

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*Presentation contents are personal views
and do not necessarily reflect those of SIPRI.
Systems mentioned should not be understood as an endorsement.

