

USE IN GREY ZONE CRISES: FUTURE OF CHEMICAL WEAPONS

(UTILISATION DANS LES CRISES DE ZONE GRISE :
L'AVENIR DES ARMES CHIMIQUES)

« Prométhée aux enfers: permanences et mutations de la guerre chimique »
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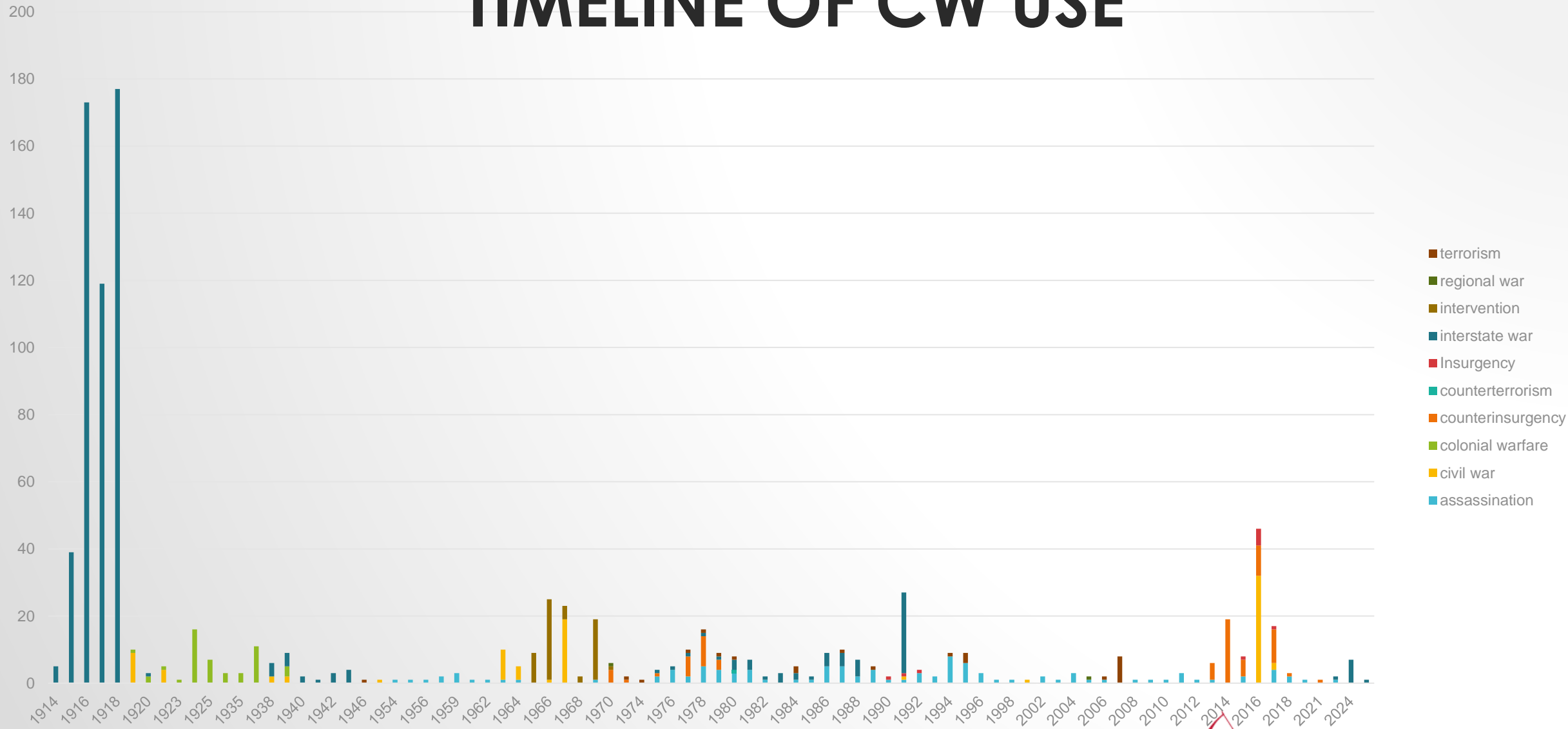
OUTLINE

- Summary of findings on CW utility in the XXI century.
- Timeline of CW use from 1915 to present.
- Shift in CW utility since 1946.
- State CW use in assassination operations.
- CW use in Grey War/Grey Zone.
 - Les crises de zone grise renvoient à des situations de guerre non déclarée
- Future Trends in State CW Use.

UTILITY OF CHEMICAL WEAPONS IN THE XXI CENTURY

- The utility of CW has evolved since the end of WWII with a few exceptions.
- Use of CW since the end of WWI has differed substantially, situationally and in scale.
- Post WWII CW use has focused on regime security: assassinations of regime opponents and insurgents, anticolonial leadership, and emerging communist leaders.
- Now, and in the foreseeable future, State CW use likely will involve assassination operations, sabotage, and small-scale special forces.
- Factors that may explain this shift:
 - Lack of CW utility against similarly trained and equipped adversaries.
 - International norms and agreements.
 - Fears of retaliation (représailles), shifting CW use to covert operations.

TIMELINE OF CW USE



Credit: Doreen Horschig

KEY POINTS IN THE TIMELINE

- CW use between nations in war is episodic after WWI and has largely involved attacks on poorly equipped, poorly trained adversaries. Examples include:
 - Italian use in Abyssinia (Ethiopia) in the interwar period.
 - Japanese CW use against the Chinese in WWII.
 - Iraqi CW use against Iranian human wave formations in the Iran-Iraq war.
- State use in counterinsurgencies continued throughout the timeline.
 - Soviet use in the 1920s and 30s; French use in Algeria (Algerian war); Egyptian use in Yemen; Rhodesian and South African use; Iraqi use (Operation Anfal); and Syrian use in the 2010s.
 - The lesson is that CW utility is most effective against poorly equipped/unequipped and untrained adversaries.
- An exception to this evolution is the Russian use of riot-control agents (RCAs) against Ukrainian trenches in the current conflict.

EARLY ERA (1915–1918): MASS BATTLEFIELD USE

- **World War I (1915–1918):** CW agents (chlorine, phosgene, mustard gas) were introduced as weapons of mass effect between major, similarly equipped armies (peers and near peers).
- **Drivers:** Tactical innovation, lack of international norms, the search for battlefield advantage.
- **Outcome:** High casualties but limited strategic effect; initiated global horror and revulsion. Adoption of international norms (1925 Geneva Protocol) banning use against States Parties. Several nations registered reservations that allowed for retaliatory CW use. No ban on use in colonial wars or counterinsurgencies.



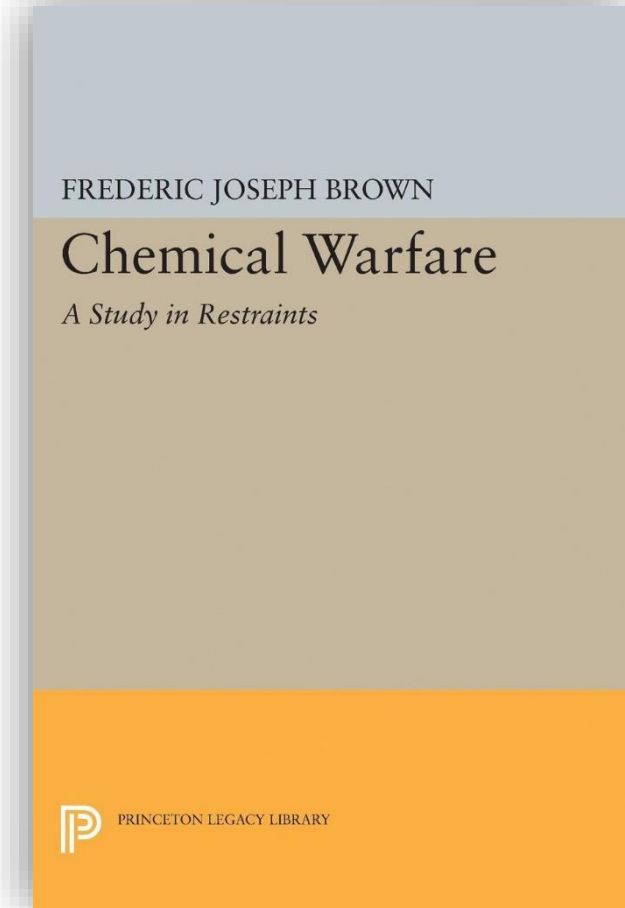
INTERWAR PERIOD (1919-1939)

- During the inter-war period (1919-1939), CW use was largely confined to:
 - *Colonial wars*—CW use in Spain's Rif war, the Italian conquest of Libya, and the Second Italo-Ethiopian War.
 - *Russian civil war*—Britain used its "M Device" to disseminate Adamsite against Bolshevik targets. British supplies of mustard gas to the White Russian forces are less documented.
 - *Soviet counterinsurgency*—Soviet forces reportedly used CW to suppress the Tambov rebellion (1920-21). Less documented--the Soviet use of CW against the Basmachi resistance in Central Asia.
- **Drivers:** Power asymmetry (colonial powers vs. poorly equipped adversaries), minimal risk of retaliation, and weak international enforcement.
- **Outcome:** CW used as a tool of repression and force multiplication.



CW USE IN WWII (1939-1945)

- **During WWII, CW use was limited to:**
 - *Japanese CW use in China*—CW use was deliberately brutal against a vulnerable adversary incapable of retaliation.
 - Polish and possibly Czechoslovakian resistance use of CW against German occupation forces.
- **Restraint by States in European Theater** due to mutual deterrence (dissuasion), WWI experiences, and alliance politics.
- **Drivers:** Asymmetry, brutality against vulnerable populations, but mutual deterrence/fear of retaliation among equals.
- **Outcome:** CW use was limited to Japanese use against the Chinese.



SHIFT IN CW USE SINCE 1946

Internal

Regime Security/Sécurité des régimes—assassinations of regime opponents (internal and external) and CW against anticolonialist forces and insurgents.

- Regime opponents/**Opposants régime** leaders of political opposition parties, exiled or expatriate dissidents, religious figures, trade unionists, etc.
- Transnational repression: including national assassination of regime opponents, typically expatriates. Transnational repression usually refers to actions undertaken by China, India, and Iran.

External

Grey War/Situations guerre non déclarée (hybrid war; sub-conflict)—CW use in assassinations, sabotage, and terror campaigns undertaken during a pre-conflict crisis period.

- Targets political leaders; military commanders and their command & control centers; media broadcast facilities; and critical infrastructure (food, water, and electricity distribution centers).



COLD WAR AND POSTWAR ERA (1946–1990): TARGETED AND REGIME SECURITY USE

CW use became episodic and situational: France in Algeria, Egypt in Yemen, Rhodesia and South Africa in counterinsurgencies, Iraq in the Iran-Iraq War, and against the Kurds.

- **Drivers:** Regime security (suppressing insurgencies, regime opponents).
 - Lack of utility against similarly equipped adversaries.
 - Emergence of international norms (Geneva Protocol, later CWC).
 - Fear of retaliation and escalation.

Assassinations and Covert (*déguisé*) Operations: States (USSR/Russia, Bulgaria, Israel, North Korea, South Africa, US, UK, France) used CW for assassinations and targeted killings.

- **Drivers:** Plausible deniability, targeting inaccessible individuals, regime security, deterrence messaging (likely second-order effect).



CONTEMPORARY ERA (1990–PRESENT): GREY ZONE, ASSASSINATIONS, AND SPECIAL OPERATIONS

Large-scale use now rare: Most recent major use: Russian use of RCAs in Ukraine.

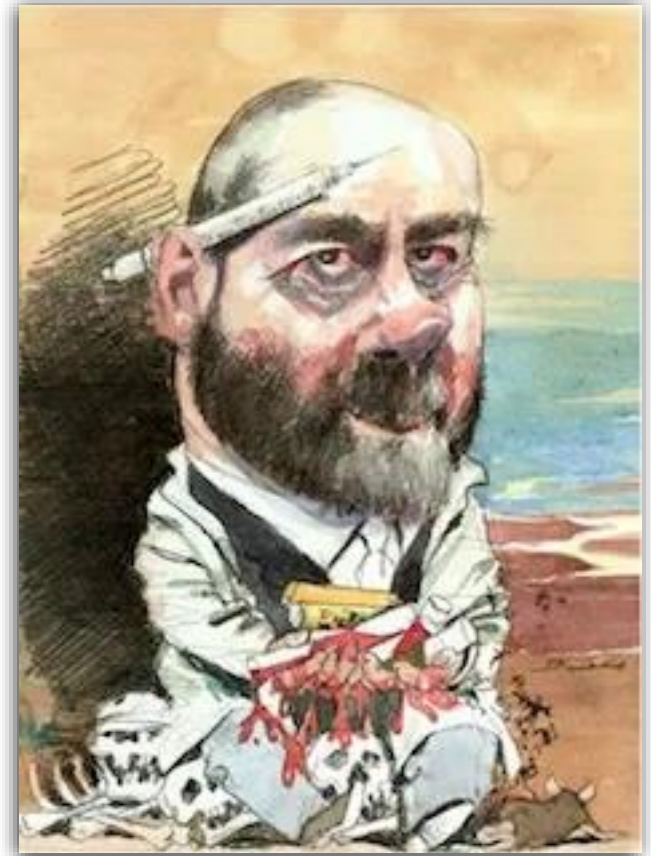
- **Drivers:** International condemnation, risk of military intervention, diminishing tactical utility.

Assassination Operations: Increasing use of CW in covert assassinations (e.g., Skripal, Kim Jong-nam, Gebrev, Navalny) and sabotage.

- **Drivers:** Weakening international norms, difficulty of attribution, low cost, and low risk of retaliation for covert use. Technological advances are enabling the development of more sophisticated, less detectable agents.

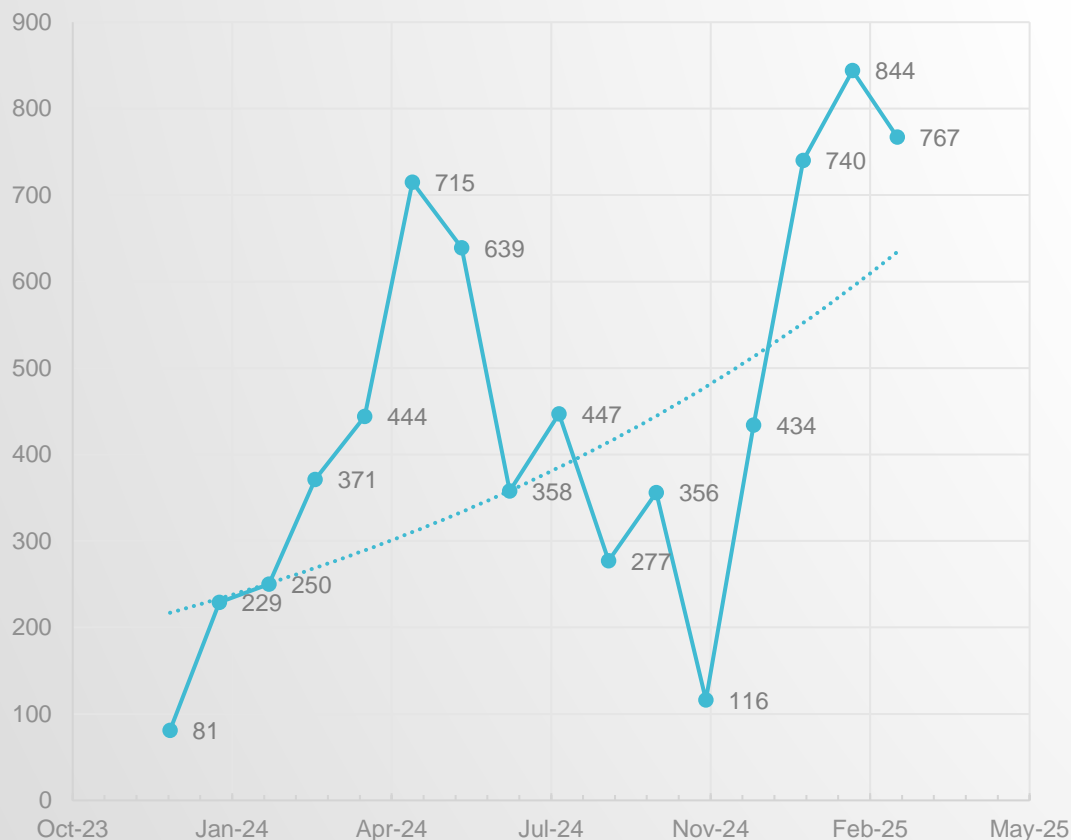
Grey War/Hybrid Warfare: CW as one tool among many (cyber, sabotage, disinformation) in sub-threshold conflict (**conflit de basse intensité**).

- **Drivers:** Great power competition, plausible deniability, and destabilize adversaries.



RETURN TO THE PAST

Number of Russian Uses of RCAs in Ukraine
(Alleged)



- The Ukraine war has seen an extensive Russian use of RCAs against Ukrainian trench lines.
- Use of RCAs as weapons of war is banned under the CWC.



PERSPECTIVES ON ASSASSINATIONS

- Long history of assassinations since the end of World War II.
- Historically, assassinations have not been publicly recognized or justified.
- Norm constraints on assassinations have eroded significantly since 2001 and likely have collapsed.



STATE USE OF CW IN ASSASSINATIONS

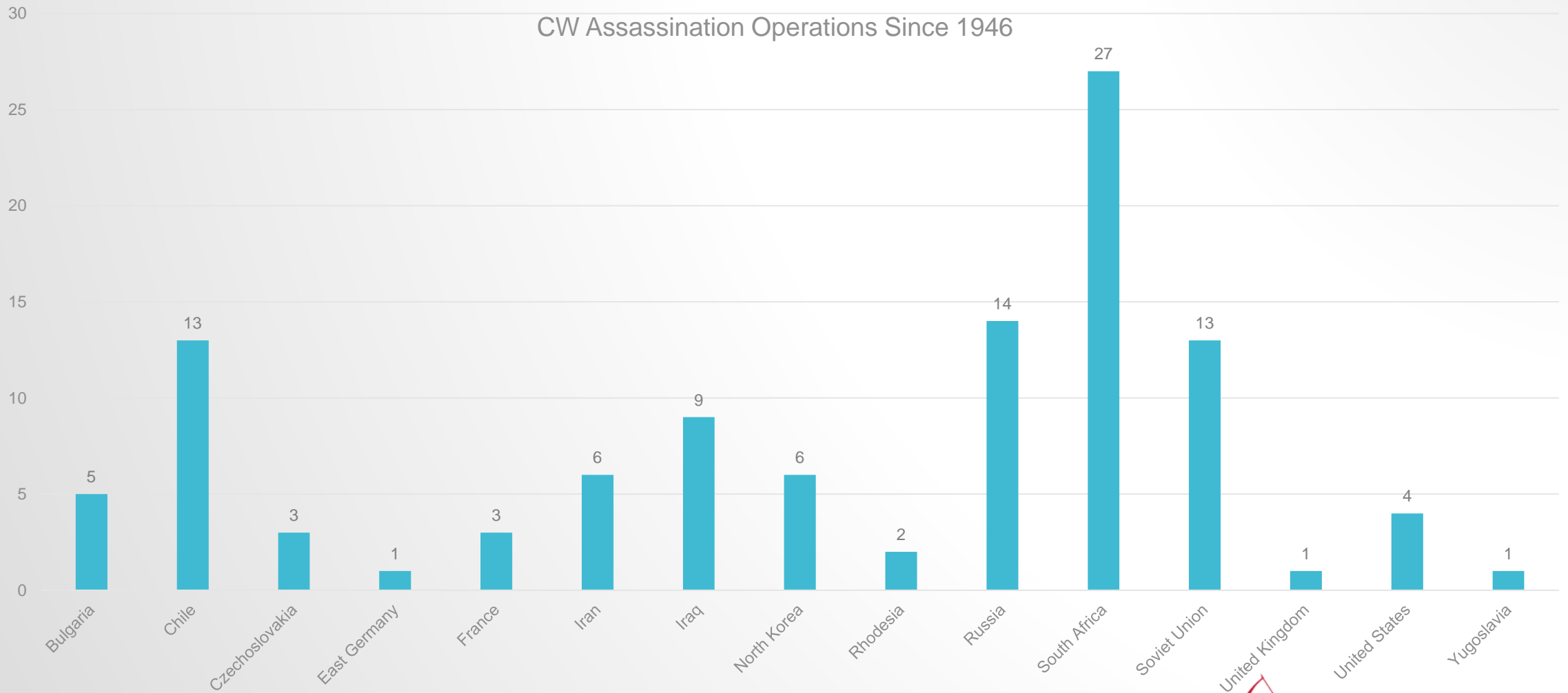
- Nations (both autocratic and liberal democracies) have used or planned/attempted to use CW in assassinations since the end of WWII.
- Use here includes:
 - Planning.
 - Preparations.
 - Attempted Assassination.
 - Successful Assassination.
- Assassination here includes:
 - Political Murder.
 - Extrajudicial killing.
 - Targeted killing.



SCALE OF CW USE

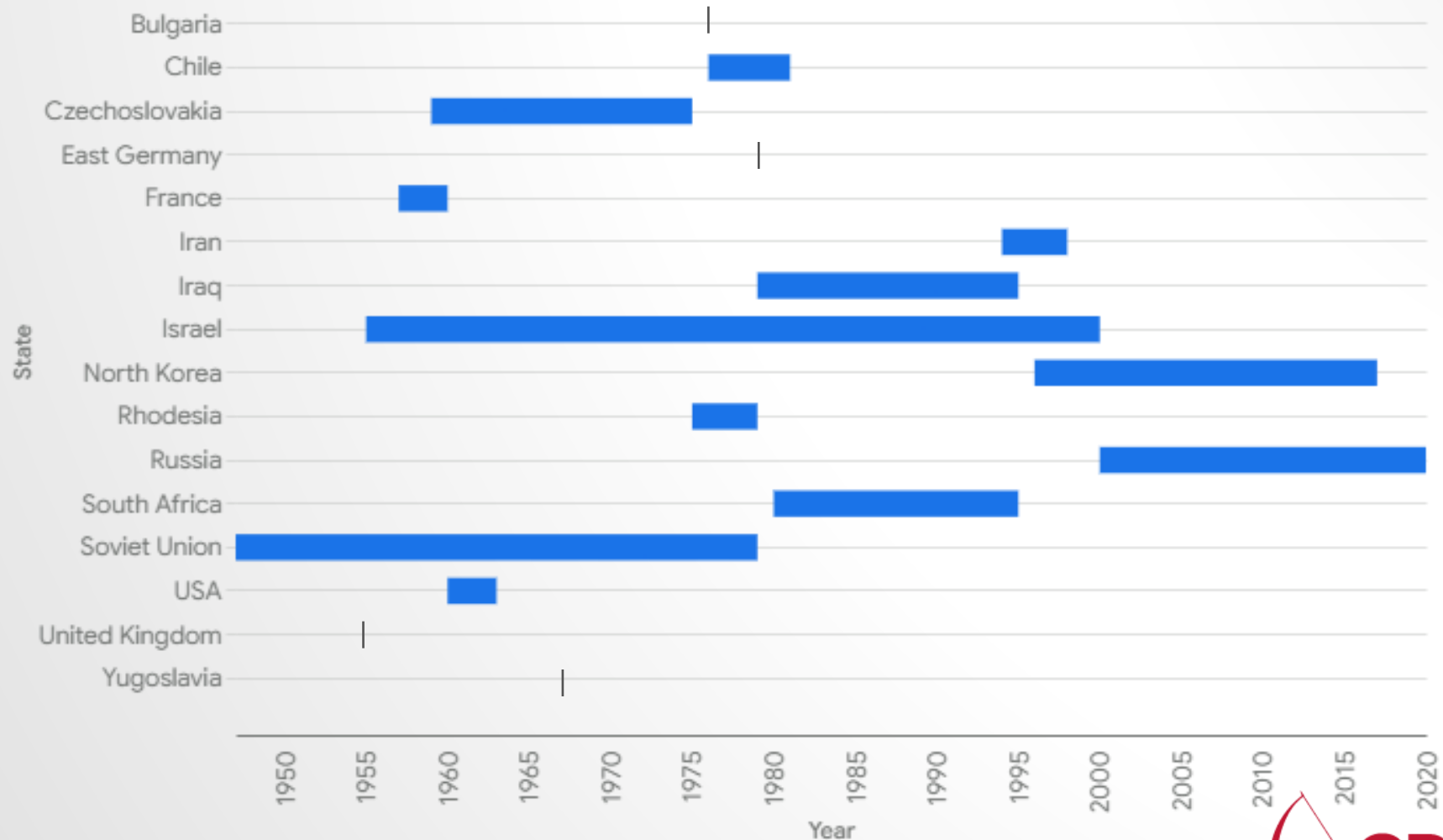
- During the post-WWII period, 16 states* are assessed (évalués) as having used CW agents in assassinations.
- Over 100 known incidents of State involvement in CW use in assassinations since the end of World War II.
 - Almost all operations are conducted by State intelligence or security services.
- In almost all cases, individuals were targeted. In a few cases, a group was targeted.
- 24 known cases occurred after the conventions came into force.

STATES INVOLVED IN CW ASSASSINATIONS



WHEN

Timeline of Incidents by State

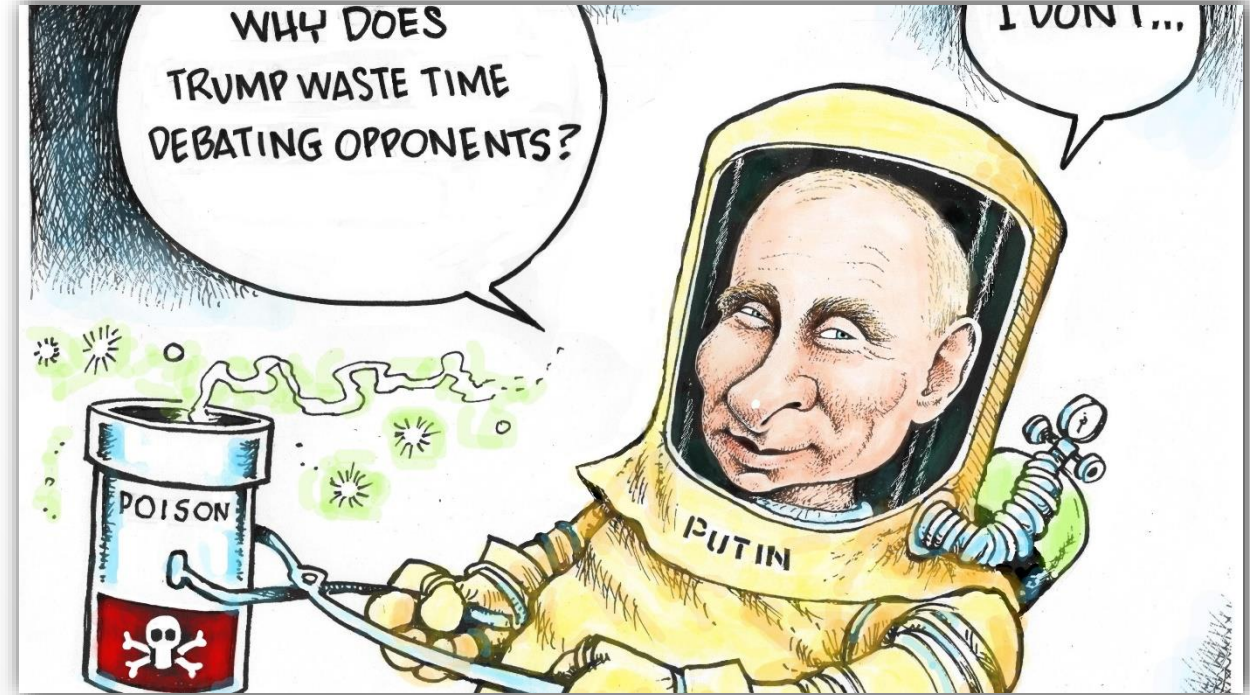


Some of these states likely are retaining assassination capabilities.

MOTIVATIONS

Why Use CW Agents in Assassinations?

- Attacks on “hard targets” (i.e., those targets otherwise well-defended or inaccessible).
- In many cases (not all), the goal was plausible deniability.
- In many—if not most—cases, the goal is for the cause of death to appear natural (“*pas vu, pas pris*”).
- Attribution likely difficult to prove; high uncertainty.
- Norm erosion has weakened effective international responses.



GREY WAR/GREY ZONE

- Grey War refers to **coercive or subversive adversarial actions below the threshold of open conflict**: cyber attacks; political, economic, and societal disruption; disinformation; assassination; sabotage; and terrorism.
- **Intended to advance a political or security goal**; to weaken or change a foreign government; *coerce* a change of behavior; challenge or assert sovereignty or effective control over territory or seize sovereign economic resources; or gain an advantageous position for future *armed conflict*.
- Key to Grey War tactics is that they are **plausibly deniable, if not covert**.



STASI CW RESEARCH & DEVELOPMENT

- East Germany's security service, the Stasi, undertook a comprehensive effort to identify fast-acting cardiac poisons, convulsive toxins, deadly neurotoxins, contact poisons, kidney poisons, so-called mask-breakers, agents that cause anxiety psychoses, curare, arsenic, and strychnine.
- The Stasi effort was likely in support of the *Arbeitsgruppe des Ministers Aufgabenbereich "S"* (AGM/S), a paramilitary branch of the Stasi.

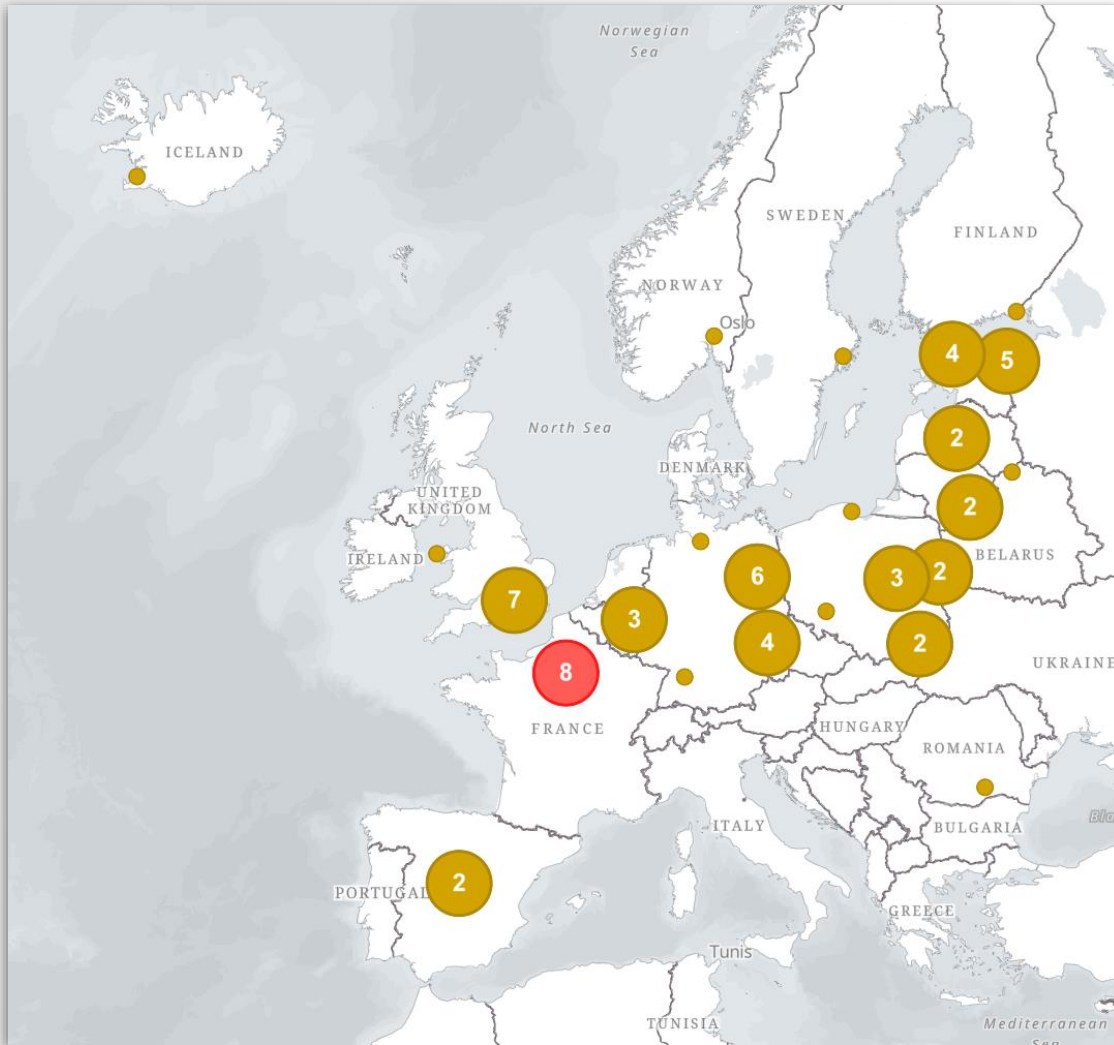


STASI CW PLANS

- The AGM/S focused on “diversionary combat”* missions deep in West Germany, including:
 - *Assassination*: using CW and conventional weapons to target key politicians, military leaders.
 - *Sabotage*: attacks on command, control, communication, and intelligence (C³I) centers; ammunition depots and factories; and critical infrastructures (gas pipelines, power generating plants, etc.)
 - *Terror*: use CW to cause fear, terrorizing the civilian population by targeting food and water supplies.
 - *Partisan warfare*: organize and train guerrilla groups to seize key road junctions, railroad facilities, bridges, etc.
- These plans likely mirror plans for use in present-day Grey War scenarios.

*“diversionary combat” désigne les attaques secondaires destinées à détourner les ressources et l'attention de l'ennemi de l'axe principal de l'attaque.

GREY WAR TODAY



Credit: AP News, 21 March 2025, <https://apnews.com/article/russia-ukraine-war-europe-hybrid-campaign-d61887dd3ec6151adf354c5bd3e6273e>

- Since the 2022 Russian invasion of Ukraine and ongoing Western support for Kyiv, suspicious (possibly Grey War) actions have taken place throughout Europe.
- These activities have included:
 - Espionage targeting Western support for Ukraine.
 - Attempted assassinations.
 - Sabotage.
 - Cyberattacks.
 - Disinformation campaigns.

CW USE IN GREY WAR/GREY ZONE

- Several states currently possess the capability (technologically and operationally) to use CW in assassinations and covert (déguisé) special forces operations.
- Russian GRU unit 29155 has been linked with the 2018 attempted assassination of Sergei Skripal (Novichok), the 2015 attempts to assassinate Bulgarian arms dealer Emilian Gebrev (Novichok), the 2020 attempt to assassinate Alexei Navalny, several high-profile murders, and arson at several arms manufacturing plants in the Czech Republic.
- Hypothetically, China could use CW agents to target political and military leadership in Taiwan before an invasion of the island.

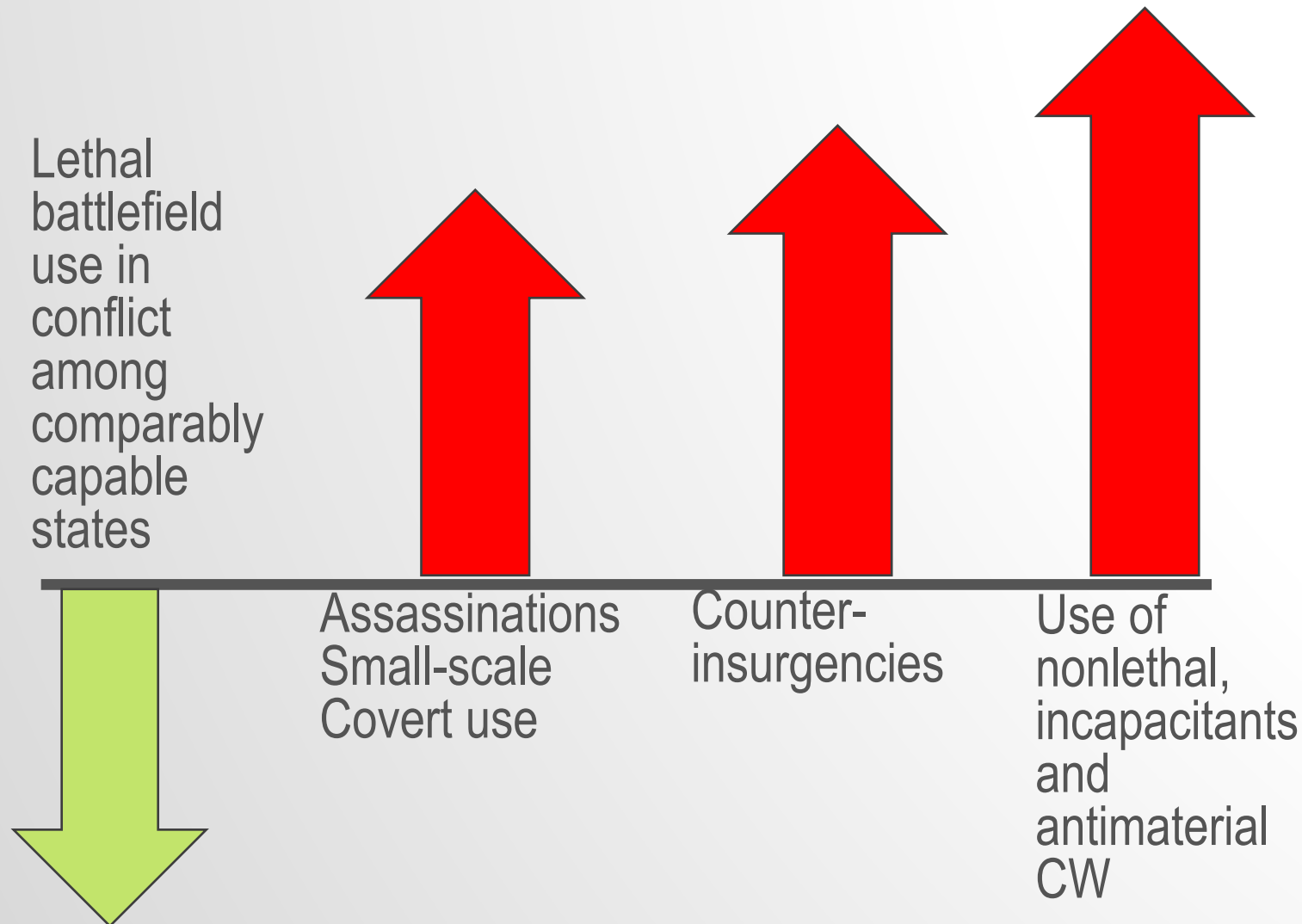
NORM EROSION AND STRATEGIC COMPETITION

- **International norms are ineffective against stronger states** determined to act in their own best interest.
- Norms against CW use have failed to prevent use in notable cases (typically regime security contexts).
- Norms against CW use in assassinations are relatively new and evolving while the norms against assassinations in general have collapsed.
- **International response mechanisms likely will weaken further** as attribution becomes harder and norm erosion continues.

LOOKING FORWARD: FUTURE TRENDS

- **CW use will remain rare in large-scale conflicts/L'utilisation d'armes chimiques restera rare dans les conflits de grande envergure** due to lack of battlefield utility and high risk of escalation.
- **Continued Shift to Covert and Targeted Use /Poursuite vers une utilisation déguisé et ciblée:** Assassinations, sabotage, and special operations will be the primary modes of CW employment.
- **Covert use/Usage clandestin for assassinations, sabotage, and regime security** will persist and almost certainly will increase, especially by Russia, North Korea, Iran, and potentially China.
- **Grey zone and hybrid operations/Opérations en zone grise et guerre hybride** will increasingly feature CW as one tool among many, especially for intimidation, disruption, and targeted killings.
- **Emerging Technologies /Technologies émergentes:** Advances in artificial intelligence, synthetic biology, nanotechnology, robotics, personalized medicine, protein folding, and pharmaceutical agents may yield new, more lethal, less detectable, and possibly more targeted CW.
 - Personalized toxins and agents designed for deniability.
 - New agents and delivery methods will complicate investigation and response.

TRENDS



While the likelihood (*vraisemblance*) of battlefield use of lethal CW agents among peer and near-peer adversaries (*adversaires de même niveau et quasi équivalents*) falls significantly,

- Use in assassinations and covert operations will trend upward.
- Use in counterinsurgencies likely will increase more significantly as seen in Syria.
- Use of nonlethal CW agents, incapacitants, irritants, and antimaterial agents will increase most significantly as seen in Ukraine.

QUESTIONS?

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