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# Dealing with Syria's Chemical Weapons: Military Options

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Given the complexities of military action, Washington and its partners should pursue a policy of deterrence, assistance, containment, and elimination to prevent the use or diversion of Syria's chemical arsenal.

Growing violence in Syria has raised concerns that the Assad regime might use its massive stockpile of chemical weapons (CW) against the opposition, or that antiregime insurgents, al-Qaeda, Hizballah, or other states might divert some of these arms for their own use. Just yesterday, Nawaf al-Fares -- Syria's former ambassador to Iraq who recently defected to the opposition -- warned that the regime would use CW if cornered. Such concerns have prompted calls for action to deal with this threat. Yet past experience in Iraq and Libya demonstrates the complex nature of this operational and policy problem.

## **SYRIA'S CHEMICAL PROGRAM**

Syria has probably the largest and most advanced chemical warfare program in the Arab world, reportedly including thousands of tube and rocket artillery rounds filled with mustard-type blister agents, thousands of bombs filled with the nerve agents sarin and possibly VX, and binary-type and cluster CW warheads filled with nerve agents for all its major missile systems. Its CW infrastructure is believed to include several production facilities and numerous storage sites, mostly dispersed throughout the western half of the country. (Syria is also believed to have a biological warfare research and development program, though it is not believed to have produced biological weapons.)

## **POSSIBLE SCENARIOS**

The Syrian regime is not known to have used CW in the past; there is no evidence for longstanding rumors that it did so in Hama in 1982. Yet other governments in the region

used CW against domestic opponents -- Yemen during its civil war in the 1960s, and Iraq against Kurdish and Shiite rebels in 1988 and 1991, respectively -- so such a scenario is not implausible in Syria. More likely, Damascus would increase its use of heavy artillery and aircraft before resorting to CW, though the growing role of *shabbiha* paramilitaries in the fighting complicates efforts to assess Syrian calculations regarding CW use.

Other scenarios presuppose the breakdown of security at CW storage facilities. For example, Syrian insurgents could use captured CW munitions against regime forces (just as some Iraqi insurgents used derelict CW munitions in improvised explosive devices against U.S. forces). Parts of the chemical stockpile could also be diverted by al-Qaeda, Hizballah, or even Iran, which reportedly destroyed its own CW stocks in the early 1990s prior to acceding to the Chemical Weapons Convention.

Diversion by nonstate actors could be difficult and dangerous if they lacked proper protective gear, training, and logistical support. Bulk agent is stored in large containers that may be hard to move, and filled munitions might leak if they were of poor quality or inadequately maintained. Moreover, binary-type munitions require two chemical components that are likely stored separately, so diverted weapons of this sort would be useless unless both components were acquired. Due to these complexities, local insurgent groups might not consider CW worth the effort to obtain.

In the event of security breakdowns at storage facilities, the diversion of small numbers of munitions by local insurgents willing to accept the risks involved might not attract notice. Yet Israel and the United States are reportedly keeping many of Syria's CW-related facilities under surveillance, so larger diversions could prove difficult to accomplish without detection. Such a diversion would require trained personnel and a significant logistical effort -- therefore, it would likely be noticed, especially if it aimed to remove CW from the country (e.g., to Lebanon).

## MILITARY OPTIONS

Israel, the United States, and other concerned countries could prevent the diversion or use of chemical weapons by launching airstrikes on CW bunkers (to deny access to the facilities or destroy munitions), or by sending in ground troops to physically secure storage facilities. Either option would require the neutralization or suppression of Syrian air defenses, further complicating an already difficult undertaking.

*Airstrikes.* The effectiveness of airstrikes would depend, in part, on the quality of the intelligence guiding them. In this regard, Iraq and Libya provide a cautionary lesson -- U.S. intelligence mischaracterized the scope and sophistication of CW programs in both countries. Thus, most of Iraq's then-extant CW arsenal survived the 1991 Gulf War because the United States lacked accurate intelligence on the regime's CW infrastructure, and because many munitions had been removed from storage bunkers and dispersed into open fields prior to the conflict. They were subsequently destroyed by the Iraqis and UN weapons inspectors.

Although direct aerial bombing might destroy large numbers of Syria's CW munitions, some chemical agents would likely be released into the air, endangering nearby civilians (though the downwind hazard could be mitigated by striking during favorable weather conditions). Moreover, many munitions would probably survive the strikes, leaving them

vulnerable to pilferage -- presuming that looters had the proper protective gear to function in a contaminated environment. Alternatively, the entrances to mountainside CW bunkers could be obstructed by bombing and then mined from the air with cluster munitions. This would reduce the likelihood of any unintended release of agent while hindering access to entombed munitions.

Despite these limitations on airstrikes, Israel might be prompted to bomb particular CW storage facilities if it believed that Hizballah or al-Qaeda were in the process of pilfering munitions from them. It might also strike a Hizballah convoy transferring such munitions to Lebanon.

*Boots on the ground* . A more systematic approach to preventing diversion or use would be to insert special operations and conventional forces to seize and secure at-risk CW facilities. Depending on the scope of the effort, this could require thousands if not tens of thousands of troops and significant intelligence, surveillance, reconnaissance, and air support -- though the 75,000 figure that some media outlets have attributed to Defense Department planners seems excessive. Such a force would need to be able to defend itself against both insurgent and regime forces. It must also be capable of operating in a contaminated environment should regime forces bombard CW sites in order to complicate its mission. Although U.S. allies could contribute important assets to such an effort (e.g., Jordan's Special Forces Brigade), it would have to be a U.S.-led effort, as few other countries have the forces and expertise required for such a mission.

Securing at-risk CW facilities would be only the beginning of a protracted accounting and elimination process that could take years. CW elimination is difficult enough to accomplish in a permissive environment (e.g., it took several years to destroy the bulk of Iraq's CW program in the early 1990s), even more so in a country still at war. Furthermore, the regime could inadvertently lose track of part of its CW inventory, mingling chemical with conventional munitions, as occurred in Iraq. This is especially true if it moves the weapons around to better secure them from the chaos of civil war.

Alternatively, if the regime uses its CW, the United States may be forced to deal with the consequences of a mass-casualty incident. This could include the insertion of small numbers of U.S. personnel into Syria to help create humanitarian enclaves or corridors and facilitate the provision of medical assistance to those affected.

## **CONCLUSION**

Given these complexities, the preferred means of dealing with the problem of Syrian CW are deterrence, assistance, containment, and elimination.

- *Deterrence*. Washington must convince the Assad regime that the use of CW is a game-changer that could prompt international military action. It should also spread the word among regime security forces that those complicit in the use of CW will be sought out and punished, while those who refuse orders to use CW will be assisted if they choose to escape the country, or shielded from retribution should the regime fall.
- *Assistance*. To deal with the threat of diversion, the United States should quietly work with Russia, building on their history of cooperation on a variety of threat-reduction initiatives in order to offer Syria various means of maintaining accountability and

control over its CW stockpile. While the United States does not have an interest in strengthening Assad, it does have an interest in the regime retaining control over its CW for as long as it is around (just as the United States offered the Soviet Union technology to help secure its nuclear arsenal during the Cold War, to avoid accidental or unauthorized use).

- *Containment*. The United States should continue to work with Syria's neighbors to tighten border security and ensure that CW do not leak out of Syria. This includes being ready to support military efforts by allies to prevent the organized transfer of chemical munitions out of the country.
- *Elimination*. Finally, if it has not done so already, Washington should begin planning to locate, secure, and eliminate Syria's chemical stockpile and infrastructure should the regime lose control of CW facilities or fall outright. It should also build on the lessons of Iraq and Libya in three ways: first, by preparing for the possibility that existing intelligence on Syria's CW is incorrect in fundamental ways; second, by realizing that the elimination of Syria's CW stockpile and infrastructure may have to be carried out under unsettled, perhaps even violent circumstances prior to or following the regime's fall; and third, by considering ways to find gainful employment for key Syrian CW engineers and scientists (as has been done for their counterparts in Russia, Iraq, and Libya) so that they are not recruited by other states of concern.

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