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Syria's Chemical Weapons: A Risk Assessment

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Following the assassination of key personnel in the Syrian security establishment in a successful attack by the rebels, and the battles between opposition forces and the Syrian army in parts of Damascus and Aleppo – the two major cities whose fall would signal the fall of Assad's regime – assessments of the impending collapse of the regime have become more prevalent. These assessments have again touched off a debate about Syria's chemical weapons in a scenario of a disintegrating regime.

It seems that the regime recovered quickly from losing many of its senior members, and military forces, still cohesive and loyal to the regime, have managed to take advantage of their military superiority to overcome the rebels who infiltrated Damascus, which is again under almost complete control of the regime. The army is trying to replicate its performance in Aleppo, and stands good chances of doing so. Yet while chemical weapons may thus currently seem a less urgent topic, it remains important, as the regime seems incapable of suppressing the rebellion despite of its obvious superior strength. Presumably the military capabilities of the opposition forces will increase, thanks to assistance from several countries, and therefore it is quite possible that assessments about the eventual demise of the regime are valid, even if it takes significantly longer than initially expected.

Three principal scenarios have arisen in which chemical weapons could be a factor, either when the Syrian regime approaches its end or after its fall:

- a. The regime makes a desperate attempt to use chemical weapons against opposition forces, as Saddam Hussein did in the Kurdish revolt.
- b. The regime transfers the chemical weapons to Hizbollah when it senses its end is near.
- c. The chemical weapons stockpiles fall into the hands of armed rebels, including extreme groups associated with al-Qaeda.

The scenario in which a dying regime uses chemical weapons against Israel seems implausible. It is unclear what benefit the leaders of the regime would gain; the regime is

not fundamentally ideological, driven by the desire to see the destruction of Israel. It is much more interested in its own survival, both as a regime and as individuals.

In response to reports about chemical weapons in Syria, including statements by Israel's Prime Minister and Defense Minister on the possibility of Israeli military intervention, the Syrian Foreign Ministry announced that the Syrian government would not use chemical weapons against its own people but only against foreign threats. It seems that on the one hand the Syrian regime is using the West's discussion of the chemical weapons to clear its name as a murderous regime, and on the other hand, to deter any foreign military intervention. It also constituted Syria's first public confirmation that it has chemical weapons.

The use of chemical weapons against the rebels would not be particularly effective, because the rebels operate like guerilla forces and the fighting occurs mostly in populated urban settings. Chemical weapons would cause primarily the deaths of unprotected civilians. Regime leaders likely understand that in addition to this type of weapon being ineffective, its use would jeopardize their own chances for survival.

The likelihood of the chemical weapons being transferred to Hizbollah hands also seems low. The Syrian regime is aware of the sensitivity of this weapon. There is no precedent for the transfer of chemical weapons from a state to a non-state organization, which is tantamount to relinquishing control of the weapon. It is unclear what advantage giving Hizbollah this weapon would confer on the regime's leaders who are not ideologues, and even professed a willingness to make a peace with Israel. It is also highly doubtful that Hizbollah would be interested in having responsibility for chemical weapons, whose usefulness against a protected population like Israel with the ability to respond is questionable.

By contrast, the third scenario is far more plausible, assuming that the regime does in fact fall. Opposition forces are divided and not under a single command. After the fall of the regime, a period of chaos will likely ensue and various armed groups will seize control of the different military facilities and weapons manufacturing plants, as was the case in Libya. They are liable to use some of these weapons themselves and designate some for barter, and in doing so are liable also to take charge of various chemical weapons components.

The degree of risk regarding the fall of these components into the hands of rebel groups is directly correlated with the structure of the Syrian chemical weapons arsenal, which was built primarily to afford Syria a strategic deterrent against what the Syrians assumed were Israel's nuclear capabilities. The arsenal comprises three types of materials: two of nerve gases – Sarin and VX, and a mustard-type gas affecting skin. The launching and delivery means are mostly airborne bombs and ballistic missiles of the Scud type. The Syrians,

aware of the sensitivity of using chemical weapons and the problems of storing it, took two major measures. First, there is a geographical separation between the chemical weapons and the means of launching them, and the chemical weapons themselves are stored in facilities located far from population centers. Second, the weapon is mainly binary, meaning that in storage there are two types of chemicals, each of which alone is not particularly harmful; it is only their combination by a mixing mechanism that renders them deadly.

As has been reported, including by Israeli intelligence sources, the Syrian army has stepped up its surveillance and taken other precautionary measures in everything connected with the chemical weapons. This makes much sense, because the regime must take into account the risk that rebels could seize control of the chemical components facilities in the course of the fighting and want to use them against the regime. Therefore, it seems that the actual risk of the components falling into the hands of rebel groups is not great. For any particular group to be able to use this weapon, it would have to seize control of all the system components, dispersed in various locations, and also seize control of the complex launching system requiring operational and logistical capabilities, such as surface-to-surface missiles and airplanes. If the chemical weapon components become commodities on the black market, there is a long term danger that single-minded terrorist groups like al-Qaeda would try to acquire all the components and create self-manufacturing capabilities.

The analysis of the threats leads to several conclusions:

- a. Despite the low probability of the first two scenarios – use of chemical weapons against Israel and transfer of the weapons to Hizbollah – Israel must send messages of deterrence, both to the Syrian regime and to Hizbollah, about the intolerable cost they would incur for taking such measures. If endowed with sufficient information, Israel might consider pinpoint attacks on such weapons transferred to Hizbollah. In this case, it is preferable that the attack be carried out on Syrian territory to reduce the probability of setting off a broader confrontation with Hizbollah.
- b. There is no good reason to attack the chemical components storage facilities before the regime collapses. Syria has large stockpiles of chemicals, and it is doubtful that all the bunkers where the chemicals are kept and certainly the launching mechanisms could be attacked and destroyed. Partial success is liable to generate the opposite result, as the regime could conclude it is preferable to use the weaponry left at its disposal before all of it is destroyed and certainly if the attack causes environmental damage.
- c. The United States and its allies must prepare for the possibility that it will become necessary to seize control of at least the main chemical weapons storage facilities

once the regime collapses. Contrary to media assessments, it seems that the number of main facilities is small and mostly located in distant, isolated areas. Thus, securing them would not be a particularly complex operation if the Syrian army collapses. Syrian military personnel might even cooperate with these forces in order to safeguard the weapons.

- d. Assuming that the leaders of the Syrian regime retain a modicum of responsibility, parties with which it still communicates, such as Russia, China, and the Arab League, should be tapped to transmit messages to President Assad about the expectations of the international community regarding safeguarding the chemical weapons.
- e. It is advisable that the nations of the West establish mechanisms for use on the black weapons market in order to seize control of any chemical weapon components falling into the hands of irregular fighting forces.

