

Country X has produced, developed, weaponized and tested Y kg amounts of sarin.

Civil war has erupted in Country X and the regime is exercising options for controlling regime opposition elements.

Diplomatic ties cut and no US embassy personnel in Country X; foreign reporters expelled.

- Challenge inspections by international organizations reveal that two suspect facilities have destroyed or moved all declarable production equipment out of the buildings.
- There are other military-controlled facilities that were declared to be for storage and were not subject to inspections.

- Fence repair, perimeter road repair, increased vehicular traffic moving to facility, increased thermal activity.
- Guard posts are occupied. Perimeters are patrolled.
- Increased cellular activity around facility

- Imagery reveals storage drums outside of main production facility.
- Military vehicles are observed leaving facility with covered tarps.
- External water tanks are full and decrease over three days, refilled again and the pattern repeats.

Employment of sarin in 155-m military shells by regime forces occurred before sunrise in a rebel-held area of the city outskirts.

After 5 years

Increased activity at an outdoor testing range

After 6 months

Analyses and reporting indicate that the program has been dormant for five years.

- Reporting from liaison diplomatic channels reveal attempts to procure materials from countries that are known to circumvent CWC restrictions;
- Keyword analysis of emails and phone communications contain words related to production equipment and technical exchanges.

- Suspect facility identification.
- Learning activity patterns.

- Restart surveillance of historical as well as suspected production and distribution sites.
- Acquire diplomatic channel communications and email.

- Surveillance in place.
- Suspect facilities identified.

Open source reporting and news coverage indicates that the regime has used chlorine against civilians in rebel-held areas of populated cities.

- Continue to monitor
- Learn normal activity patterns

- Identify list of key locations and personnel to be monitored.
- Inform surveillance efforts.
- **Abductive inference loop.**

- Initiate analyses of imagery, communication, transportation, diplomatic channels, emails and phone conversations.
- Start collecting multi-source data for STIO network representation.

- Inform surveillance efforts on data to be gathered.
- Construct multi-layer network model of infrastructure and social networks.
- Develop Graph Dynamical System model
- Models of baseline activities at different spatio-temporal scale and across network for hypothesis testing