DTIRP Arms Control Security Information Article

A PRODUCT OF THE DEFENSE TREATY INSPECTION READINESS PROGRAM, AUGUST 2004

Order Number 931A

Arms Control Security Countermeasure Considerations

The United States Government and you, as a facility manager, program manager, or security officer, are responsible under various arms control agreements for demonstrating compliance, while simultaneously protecting national security, proprietary, or other sensitive information. Unlike earlier treaties such as the Conventional Armed Forces in Europe (CFE) Treaty, which focuses narrowly on inventory questions involving declared military armaments and Department of Defense (DoD) facilities, other newer agreements may apply to previously undeclared facilities. These newer agreements are far more likely to address broad confidence-building measures and/or compliance concerns. Declared facilities have been subject to arms control inspections for several years and have gained extensive experience in implementing appropriate security countermeasures. The aim of this article is to address the issue of security countermeasures from the standpoint of a facility that is not declared under a specific arms control agreement.

The likelihood of any one undeclared facility actually undergoing an arms control inspection is relatively low. However, the number of facilities susceptible to inspection under these agreements is very large. This challenging situation calls for the thoughtful application of security countermeasures. Unfortunately there is no magic formula for implementing countermeasures; it is entirely dependent on the unique context of a particular arms control agreement and the idiosyncrasies of a specific site. Because the probability of inspection is small, the emphasis must be on cost-effective measures that are applied only after careful consideration and analysis. In fact, the application of security countermeasures is the last step in a multi-step process.

Susceptibility—Know the Treaty Environment

The first step is to gather information about your facility's susceptibility to the verification provisions of a number of arms control treaties and agreements. This is a fairly straightforward process involving an examination of the object and purpose of various agreements. The broad scope and subject matter of an agreement should enable either a yes or no determination, at least on the issue of theoretical susceptibility.

The Chemical Weapons Convention (CWC) and the Treaty on Open Skies are two agreements that permit inspections or observation flights which could impact undeclared facilities. The CWC entered into force in 1997, and inspection activity at U.S. declared commercial facilities began in 2000. Under the CWC, challenge inspections expose a large number of facilities (primarily, but not exclusively those devoted to chemical production and/or research) to possible inspection. A challenge inspection cannot be refused by the challenged State Party. The basis for a challenge inspection need not involve chemical weapons by themselves, but rather any suspected activity involving scheduled chemicals and improper reporting or incorrect declarations as required by the Convention.

The Treaty on Open Skies promotes transparency in military arms and acts as a confidence-building measure by permitting the 30 States Parties (Kyrgyzstan has not yet ratified) to fly over each other's territory using unarmed observation aircraft equipped with specified sensors. These sensors include optical panoramic and framing cameras, video cameras with real-time display, infrared line-scanning devices[1], and sideways-looking synthetic aperture radar (SAR)[2]. No areas may be restricted due to national security concerns. Areas may only be restricted for flight safety reasons.

When fully implemented, the United States will have the right to conduct up to 42 observation flights each year over other States Parties' territory. Conversely, the United States will also be obliged to accept up to 42 observation flights over U.S. territory each year.[3] Different States Parties have different annual quotas, but each Party's active and passive quota are the same. Since all areas within the territorial United States are subject to being imaged

[1] Infrared imaging equipment cannot be used until 31 December 2005.
[2] There are currently no countries using or pursuing the use of SAR.
[3] Full implementation will begin in calendar year 2006. Until then, the United States allocation is 31 active and 31 passive quotas per year.

during an observation flight, some operations at defense contractor facilities could be affected.

Threat—Analyze Verification Activities

After determining the susceptibility of your facility to various treaties, the next step is to analyze the verification activities permitted under these treaties. This includes the inspection procedures and techniques, the duration of inspections, and the make-up of the inspection team (i.e. are they a team of inspectors from one country, a team made up of inspectors from differing international backgrounds, a large team of inspectors, or a very small number of inspectors?). By understanding the verification activities permitted under an agreement and comparing them to your facility's sensitivities, you can accurately begin to assess, and ultimately address, any existing vulnerabilities.

Open Skies observation flights primarily affect activities occurring outdoors such as research, development, testing, and evaluation programs. However, plant and facility layouts will be readily observable, including items such as new construction, security arrangements, and shipping containers. Infrared sensors may also reveal information about production activities, including the level and scope of heat-generating activities inside a facility.

Imagery collected by any of the 30 States Parties are available to any State Party willing to cover the costs of duplication. Along with the SAR, infrared sensors can collect images through certain materials and thin coverings such as wood or canvas. Both work equally well at night or during the day. In fact, the SAR even performs well during inclement weather. Finally, Open Skies sensors can be mounted obliquely, enabling their capabilities for recording some objects that are either covered or located just inside large bay doors.

The CWC has more than 160 States Parties. The Convention's verification activities include on-site inspections which are carried out by employees of the Technical Secretariat (TS) of the Organization for the Prohibition of Chemical Weapons (OPCW). Members of OPCW inspection teams may be citizens of any State Party. Notably excepted is in the case of a challenge inspection where no national of the requesting state party or the inspected state party may serve as a member of the inspection team. Inspectors employed by the TS typically serve on 3-year contracts.

The CWC inspection regime for routine inspections and monitoring operations is the most intrusive of all arms control regimes. The Convention's challenge inspection provisions are also, potentially, quite intrusive. Verification activities permitted during CWC inspections include measurement, photography, sampling and analysis, records review, and personnel interviews. The actual duration of a challenge inspection may not exceed 84 hours; however, that may be preceded by up to 72 hours, through negotiations, during which the inspection team is present and active at the facility's perimeter.

Vulnerability Assessments, Analyzing Risk

After identifying the verification activities to which your facility may be susceptible, you will be ready to assess any vulnerabilities your facility may have. An important part of this assessment is to consider how much information about your facility is already in the public domain, and how such information could be combined and used with information gained during an inspection. By doing a side-by-side comparison of the pieces of information that could be observed by inspectors with those elements of information you need to protect, you will be able to identify areas of potential vulnerability.

The inspection team's purpose will be to collect specific data to support a judgment about U.S. compliance with a particular treaty. However, any and all observations made by the inspectors while at your facility will be carried away with them. For this reason, the risk of the loss or transfer of key technologies and other information is clear and present. Allowing foreign inspectors into areas where sensitive production or processing activities are occurring, without employing appropriate security countermeasures, could contribute to, or result in, losing sensitive or proprietary information.

Assess Probability, Implement Countermeasures

When selecting appropriate countermeasures for implementation at your facility, it is important to remember that the U.S. Government has determined that the probability of an inspection actually occurring at an undeclared facility is relatively low. For this reason, low- or no-cost countermeasures which cause the least amount of disruption possible to a facility's current operations and programs are recommended. In most cases, the selected countermeasures should only be

implemented after a facility has been notified of an impending inspection. Before developing and implementing countermeasures, it is also important to be acquainted with the government programs and policies that have been set up to address the security issues presented by individual arms control agreements. The agreements themselves (with the exception of the Treaty on Open Skies) contain specific provisions giving facilities the right to protect sensitive information.

Regarding Treaty on Open Skies observation flights, countermeasures should address the capabilities of the imaging sensors. For example, if the physical layout of an industrial process itself constitutes sensitive information, the only truly secure solution is a solid cover. Where there are temporary or periodic programs involving sensitive information, managers of DoD facilities, DoD contractor facilities, and other government agencies should seek the assistance from the DTIRP Program, their local Defense Security Service (DSS) Industrial Security Representative or their government sponsor.

In the event of a challenge inspection under the CWC, there would be a maximum of 48 hours advance notice from initial notification until arrival of the inspection team at the facility. It is the responsibility of DoD components to ensure that sensitive information at their facilities is protected. DTIRP team members may assist and support the services and components, as requested. Their support could include helping facilities prepare for inspections by conducting joint planning meetings, site assistance visits, preparatory inspections, and other preparation measures. Upon notification of a CWC challenge inspection, the U.S. Government would designate a lead agency "host team" and deploy an advance team to help prepare the facility and implement necessary countermeasures.

Managed access is one of the major components of the countermeasures used during challenge inspections to protect sensitive information from unauthorized disclosure. Specific protective measures authorized by the Convention include:

- Removing sensitive papers from office spaces
- Shrouding sensitive stores, displays, and equipment, computers, and electronic systems
- Logging off computers and turning off data-indication devices
- Restricting sample analysis to the presence or absence of specified chemicals
- Using random selective-access techniques whereby inspectors are requested to select a percentage or number of buildings of their choosing to inspect (the same principle can apply to the interior and content of sensitive buildings)
- Allowing only individual inspectors to have access to parts of the inspection site (in exceptional cases)

After considering the many U.S. Government programs available to assist you and the treaty provisions designed to protect and limit the intrusiveness of inspection activities, additional measures may still be necessary. The best guidance for additional measures may be the experience already gained through hosting foreign inspection teams. It is recommended that facilities:

- Create notification rosters and building contact lists and keep them in place
- Plan and exercise visitor/inspector routes
- Identify site diagrams to be used during inspection implementation activities
- Assess existing public affairs and visitor information for possible use during pre-inspection briefings

Finally, an important point to remember in connection with all arms control agreements impacting undeclared facilities is that the number of such inspections will be very small. Consequently, a modest but prudent research and planning effort is the most appropriate response to the low probability inspection liability; not an expenditure of significant resources.

If you think your facility may be affected by any arms control agreements as well as those discussed in this article, you should use all of the readily available resources of the DTIRP program to stay informed and be prepared not only for existing agreements, but for emerging ones as well.

To obtain additional information about arms control treaties potentially affecting your facility and the application of security countermeasures, contact the DTIRP Outreach Program Coordinator at 800-419-2899 or by e-mail at dtirpoutreach@dtra.mil, your local DSS Industrial Security representative, or your government sponsor.