

firm information received through human sources such as experts on exchange visits or UN fact-finders in the field. Data from intelligence and fact-finding sources can be used to target technical collection resources. An enhanced CBM such as exchange visits of scientific experts may provide information that can be used to target suspect biological weapons facilities with NTM or other technical means.

Technical Means and Data Exchanges/Registers

Data from technical means provide modest but useful information about the nature and scope of information expected to be found in data exchanges, information exchanges and information data bases compiled by the UN. On the other hand, data and other information exchanges provide highly useful information for enhancing present and future monitoring capabilities. The UN Register of Conventional Arms, for example, has the potential to provide important transparency input for conventional arms verification activities.

Technical Means and Notifications/Declarations

While technical means have only a modest effect on notification, declarations and other activity reports, these methods have a substantial effect on technical means. Technical means can provide insights regarding what should be expected in the notifications, and in some cases technical means can confirm that the notified action has taken or is taking place. Declarations or notifications can trigger a variety of technical collection activities; while it is unlikely that a country would declare a prohibited activity, for example the existence of a chemical weapons facility, non-declaration of a site already identified through technical means would raise compliance concerns.

Technical Means and Inspections/Observations

The synergistic effects between technical means and inspections or observations are very high in both directions. Information from technical means can be used to trigger, focus and evaluate on-the-ground inspections. Inspections can provide "ground truth" for a variety of

technical systems, which reinforces their credibility. Technical means can provide information necessary for directing the location and timing of inspections associated with a future CTBT. Inspections and technical measurements made on the ground can provide valuable data for calibrating seismic measurements carried out by technical means.

Technical Means and Aerial Surveillance

Aerial surveillance can frequently cover sites that may not be accessible on a timely basis by space-based technical collection systems. Aerial overflights can fill in gaps in space surveillance coverage by operating at lower altitudes, often under the weather, at times when space satellites are not within the detection or observation range of the suspect activity or facility. On the other hand, technical collection systems can be used to target aerial surveillance flights for the acquisition of more precise or timely information.

Technical Means and Implementing Bodies

Technical means provides invaluable information to bodies responsible for implementing arms control agreements, confidence-building measures, and peace-related activities. In the UNSCOM experience, data from space-based sensors have been used to cue on-site inspections, thus creating an effective use of limited resources in person-intensive operations. On the other hand, while the activities of an implementing body such as a nuclear risk reduction centre or a crisis prevention centre could provide some requirements for technical means, the synergistic effects would not be as great in this direction because the information is not suitable for targeting technical means on a timely basis.

Intelligence, Information and Fact-Finding Means, and Data Exchanges/Registers

The synergies are high in both directions because the data obtained by these methods provide valuable cross-checks, thus enhancing confidence in both methods. For example, information supplied for the UN global arms register can be checked by intelligence means for accu-

