

International Data Centre and Global Communications Infrastructure

The International Data Centre (IDC) was inaugurated in January 1998 and started to transmit data in May that year. It receives, collects, processes, analyses, reports on and archives data from the IMS, including from the certified radionuclide laboratories. The IDC seeks to associate various signals from a common source (an 'event'); to estimate the parameters of the source (such as time, location and magnitude) and to highlight uncertainties associated with them; to identify or distinguish the nature of the event; and, if the event is suspicious, to attribute it to a particular party.

The CTBTO's dedicated satellite-based Global Communications Infrastructure (GCI), functional since mid-1999, transmits data from the IMS monitoring stations, in near real time, to the IDC in Vienna and, in turn, transmits IDC data to national authorities. The data received by the IDC is processed immediately, with the first automated products released within two hours. An automatic Standard Event List is produced through the automated processing of seismic, hydroacoustic and infrasound data, which is analysed and revised to generate a Revised Event Bulletin (REB). An REB can be compiled between four and six days after the event. The radionuclide data takes up to two weeks due to the need to physically collect samples from the stations for appraisal. The aim is increasingly to automate this process using new technology. States signatories may request either the raw data or information in bulletin format.

On-site inspections

Once the CTBT has entered into force, any state party may request an OSI in the event that a suspected nuclear explosion is detected either by the IMS or by NTM. The purpose of an OSI is to clarify whether there has been a nuclear explosion and to gather information that might help to identify the violator. The CTBTO will not have a permanent inspectorate, but will draw on experts, pre-nominated by states parties, who have received prior training, periodically upgraded, by the CTBTO. The CTBTO will have its own equipment and Operational Manual for conducting inspections. Training, testing and procurement of equipment, tabletop exercises and field experiments are continuing in preparation for entry into force.

Slow progress is, however, being made on the Operational Manual, despite the Prepcom according it its 'highest priority'. Significant disagreement remains about the level of detail that should be included. Some states, which fear that OSIs will be used to spy on installations and activities irrelevant to the CTBT, wish to constrain the rights and options of the inspectors. Others believe that tying the hands of the inspectors too much will reduce their effectiveness in undertaking their verification tasks. Attempts by the working group that is negotiating the manual to shorten the draft, which is hundreds of pages long, have made little headway. Negotiations have been hampered by US withdrawal from the CTBTO's OSI work after the Bush Administration decided not to ratify the treaty.⁸ Some observers argue that should entry into force of the treaty become imminent, political backing will materialise to permit agreement on the manual.

Organizational evolution

Significant organizational change will occur at the nascent CTBTO in the near future:

- the scheduled retirement in July 2005 of the inaugural Executive Secretary of the Prepcom, Wolfgang Hoffmann of Germany; discussions have begun among state signatories about a

⁸ In addition the US has withheld funding from the work, although it continues to participate in and pay its assessed contributions for all other aspects of the Prepcom's operations.