

**Statement of the Executive Secretary of the  
Preparatory Commission for the Comprehensive  
Nuclear-Test-Ban Treaty Organization to the  
48<sup>th</sup> Regular Session of the IAEA General Conference  
Vienna, 20-24 September 2004**

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Mr. President,  
Excellencies,  
Ladies and Gentlemen,

I would like to present you with the status and recent developments regarding the Comprehensive Nuclear-Test-Ban Treaty (CTBT).

1. Since its adoption by the United Nations General Assembly in September 1996 the Treaty has increasingly become universal in its status, with 172 Signatories and 116 states having deposited their instruments of ratification with the UN Secretary-General. The ratifiers include 32 of the 44 States whose ratification is required for the Treaty to enter into force.
2. The CTBT provides for the establishment of a unique global verification regime that consists of an International Monitoring System (IMS), a consultation and clarification process, on-site inspections (OSIs) and confidence building measures (CBMs). Data from IMS stations around the globe are processed and analysed by the International Data Centre (IDC) in Vienna. All IMS data and IDC products are made available to Member States, who have the final responsibility for analysing the data.
3. The Commission and its Provisional Technical Secretariat (PTS) based in Vienna, now in the eighth year of their challenging existence, have progressed significantly in preparing the effective implementation of the CTBT. Out of the 337 IMS facilities, in four technologies, provided for in the Treaty, site surveys have been completed for 322 facilities. Altogether, 190 facilities in the four technologies have already been installed or upgraded and substantially meet the Commission's specifications. The total number of facilities certified is 96. An additional 78 stations are either under construction or in contract negotiation. More than 70 IMS facilities are currently funded for operation and maintenance, either for testing and evaluation prior to certification or for post-certification activities. The number of facilities contributing data to the IDC has increased to 134.
4. The IDC supports the verification of the CTBT and provides for the civil and scientific interests of Member States by making available products and services necessary for effective global monitoring. This is achieved through the establishment and testing of facilities that receive, collect, process, analyze, report on, and archive data received from IMS stations. As of today, about 105 waveform stations are moved into IDC operations, contributing to the Reviewed

Event Bulletins. The IDC work on the design, implementation and management of information security is progressing.

5. Testing and evaluation of radionuclide operational software and procedures continued with the addition of new IMS radionuclide stations to IDC operations, bringing the total to 29. These stations contribute approximately 11 700 radionuclide spectra per month, including 900 sample spectra for interactive review, providing opportunities for further design of software improvements and problem solving.

6. The IMS data and IDC products are useful not only for the international security, but also for civil and scientific purposes, such as rapid notification of the location and size of potentially damaging earthquakes; scientific studies of the earth, including its oceans and atmosphere; early detection of exploding volcanoes and warnings to the aviation industry of volcanic ash in the atmosphere. Around 80 secure signatory accounts (one for each requesting State Signatory) have been established, with over 600 users authorized to access IMS data and IDC products and receive technical support from the IDC.

7. National Data Centre (NDC) related outreach missions have taken place since the beginning of 2004. PTS staff members visited several States in Eastern Europe and Africa. Briefings by PTS staff covered the build-up of the verification regime and drew the attention of the States to the potential civil and scientific benefits of related technologies. Support to NDCs covered issues such as obtaining GCI licences, establishing NDCs and interacting with the PTS to access data and products. During such visits, NDC technical staff members were invited to attend PTS training courses and to take part in testing and evaluation activities.

8. The Global Communications Infrastructure transfers IMS data to the IDC and disseminates these data and IDC products to States Signatories. The PTS operates the GCI as a worldwide, closed and secure satellite communications network. Once it is fully operational, the GCI network is expected to carry daily some 11 gigabytes of data. The programme of very small aperture terminal (VSAT) installations has continued. Over 160 VSATs have been installed out of the planned total of 248.

9. As the build up of the International Monitoring System (IMS) became more advanced, the PTS got increasingly more engaged with operation and maintenance (O&M) of the system, which is equally challenging to the PTS. With the continued development of the PTS-wide coordination of operation and maintenance of the IMS, significant resources were dedicated to planning, execution and analysis of the first progressive system-wide performance test (SPT1). Work has been conducted on developing several tools to monitor and report on O&M network and to support the physical infrastructure. The IMS Reporting System (IRS), version 3.0, is now operational. A third release of the Database of the (Provisional) Technical Secretariat (DOTS) was completed to include a reporting tool and additional enhancements.

10. The PTS organised joint training courses for IMS station operators and NDC staff during 2004. The first such course, for station operators and NDC managers, took place in Vienna. In radionuclide technology, one technical training programme, hosted by the Austrian Research Centres in Seibersdorf, was also conducted. Joint regional training courses for IMS station operators and NDC technical staff were held in Obninsk, Russian Federation, in May and in Caracas, Venezuela, in June 2004. Detailed preparations are continuing for the PTS O&M workshop to be held in Baden, Austria, from 11-15 October and for regional training courses for NDC technical

staff to be held in Dakar, Senegal from 25-30 October and in Jakarta, Indonesia from 8-14 December.

11. The PTS conducted the preparatory phase of its System-Wide Performance Test (SPT1) in May-June. Altogether, 130 IMS stations and 4 radionuclide laboratories (about 40% of the complete monitoring system) took part. Continuous evaluation is an important element of preparation and planning for SPT1. In the implementation of the preparatory phase of SPT1, the coordination and participation of the key players in the exercise and the functioning of the various components of the system and of the various reporting tools were monitored. Several meetings were held during and after the exercise to obtain feedback from those involved in the exercise. This feedback coupled with the results of the baseline assessment and scenario implementations that are currently being analysed will provide a basis for the planning of the main phase of SPT1 in 2005.

12. Work has continued on the draft On-Site Inspection (OSI) Operational Manual; development of a provisional list of inspection equipment and equipment specifications for testing and training purposes; development and implementation of the equipment testing programme; definition of the status of inspectors and development of related training guidelines; and conduct of various OSI activities, such as field experiments, equipment demonstrations, workshops, tabletop exercises and experimental advanced courses.

13. Measurement of the radioactive noble gases, namely xenon and argon-37, is important for OSIs conducted under the Treaty. Equipment for undertaking such measurement is, however, unique and needs to be specially designed and developed. The PTS has two separate ongoing projects for xenon and argon-37 with the objective of obtaining the relevant measurement equipment for testing and training purposes.

14. The PTS has also prepared its Strategic Plan for the OSI Major Programme. Three strategic goals have been defined in order to achieve full OSI readiness by entry into force (EIF) of the Treaty: (1) to conduct a near full scale OSI field experiment in 2007 (FE07); (2) to achieve operational readiness for the conduct of one OSI, confirming such capability by conducting a mock OSI in 2009 (OR09); (3) to establish the capability to conduct two simultaneous OSIs by EIF. Preparation for FE07 has been initiated.

15. Today, the PTS has about 270 staff members from 70 countries, of whom around 175 are in the Professional category. The PTS is committed to a policy of equal employment opportunities. The representation of women in Professional positions is about 27% of the staff in the Professional category. The PTS continues to cooperate with other VIC based international organizations on the provision and management of joint services at the VIC.

Thank you