
**Statement of the Executive Secretary of the
Preparatory Commission for the Comprehensive
Nuclear-Test-Ban Treaty Organization to the
45th Regular Session of the IAEA General Conference
Vienna, 17-21 September 2001**

Mr. President,
Excellencies,
Ladies and Gentlemen,

At the outset, and in view of the horrible attacks on the United States, last week, which have led to many losses in human and material terms, I would like to join others before me in expressing my sincere condolences and sympathies with the United States and especially with the families of the victims of these unspeakable acts.

Today I would like to present you with 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 reached the status of a universal Treaty, with 161 Signatories. Seventy-nine States, including 31 of the 44 States whose ratification is required for the Treaty to enter into force, have deposited their instruments of ratification with the UN Secretary-General.
2. The Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization (CTBTO) and its Provisional Technical Secretariat (PTS), based in Vienna, are actively engaged in preparing the effective implementation of the CTBT. About 90 States are accredited to the Commission.
3. As primary obligations “Each State Party undertakes not to carry out any nuclear weapon test explosion or any other nuclear explosion, and to prohibit and prevent any such nuclear explosion at any place under its jurisdiction or control.” Each State Party undertakes, furthermore, “to refrain from causing, encouraging, or in any way participating in the carrying out of any nuclear weapon test explosion or any other nuclear explosion.” Thus, the CTBT prohibits all nuclear test explosions, for military, or any other purpose. The ban includes all environments and does not set a threshold for testing. The Treaty’s primary objective is “to contribute effectively to the prevention of the proliferation of nuclear weapons in all its aspects” and “to the process of nuclear disarmament”.
4. The first Conference on Facilitating the Entry into Force of the CTBT was held in October 1999 in Vienna. Following up to that, a second conference is to be convened this year in New York. This is giving momentum to more signatures and ratifications of the Treaty.
5. 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.

6. The IMS is to consist of a global network of 321 stations in four technologies together with 16 radionuclide laboratories. The facilities will be capable of registering vibrations underground, in the sea and in the air, as well as detecting traces of radionuclides released into the atmosphere from a nuclear explosion. The IMS stations will transmit data by a global communications system to the IDC in Vienna, where they will be processed, analysed and used to detect, locate and characterize events. The IDC produces bulletins of events based on these data. All IMS data and IDC products are made available to Member States, who have the final responsibility for analysing the data. Ambiguous events could be subject to consultation and clarification. As a final verification measure, OSIs may be carried out.

7. The budgets approved by the Commission since 1997 for establishing the IMS include the costs of the site surveys the purchase of equipment, installation, final certification, and operation and maintenance of the facilities. Work on the IMS stations started in the second half of 1997. The installation of the monitoring network is proceeding at a steady pace.

8. As of today, over 265 site surveys have been completed. Altogether 90 stations in the four monitoring technologies are under construction or under contract negotiation. More than twenty of the primary seismic stations, 75 of the auxiliary seismic stations, 2 hydroacoustic stations, 9 infrasound stations and 14 radionuclide stations have been completed and substantially meet specifications.

9. The PTS is proceeding with the installation of authentication devices that provide a digital signature to the data transmitted to the IDC, and commands that are made to the stations. This is in order to ensure the authenticity and accuracy of the information.

10. As more and more monitoring facilities will be certified and formally accepted into the IMS, increasing attention is being paid to the arrangements for long term operation and maintenance of these globally dispersed facilities. To this end, a workshop was organized in 2000 to explore the logistical concepts and options for operation and maintenance of the network. Some general principles emerged from the workshop and these were used to develop specific recommendations for implementation by the PTS.

11. The IDC supports the verification responsibilities of Member States by providing products and services necessary for effective global monitoring through the establishment and testing of facilities that will receive, collect, process, analyze, report on, and archive data received from IMS stations. The development of the IDC has been carefully planned on the basis of the operational experience gained from the Group of Scientific Experts Third Technical Test (GSETT-3) as well as from operations at the prototype International Data Centre (pIDC) in Arlington.

12. All computer hardware, commercial software and public domain software systems necessary for the full scale testing of the IDC have been purchased and installed. Emphasis has been on full redundancy of all the important components to reduce the number of instances of a single point of failure. A 125 terabyte mass data storage system, providing archiving capacity for more than 10 years of verification data, began full operation in June 2001.

13. The installation of Release 2 of the IDC applications software enabled the IDC to start distributing data and products and provide services to States Signatories in the year 2000. Release 3 of the software was installed in May 2001 as a preparation for the full scale testing of

the IDC and for the final validation and acceptance of the software. The IDC has begun to take over from the prototype IDC in Arlington, Virginia USA the development, integration and maintenance of the software, starting with software to support system monitoring, authentication key generation and management, Web services and National Data Centre (NDC) software. The initial version of the NDC software, Geotool, is made available to about 30 States Signatories for testing and review.

14. The Global Communications Infrastructure (GCI) 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.

15. A total of 138 GCI site surveys have been completed, and satellite terminals (VSATs) have been installed at 63 of the IMS, NDC and development sites. Thanks to the help of the Permanent Missions, we now have obtained 84 licenses from 28 countries. The only area of serious operational concern remains the Pacific Ocean region. The decision has been made for the C-band communications hub to be moved from California in the USA to Sydney, Australia. This transition is planned for the fourth quarter of this year.

16. In the field of on-site inspection (OSI) the Commission builds up capabilities in accordance with Treaty requirements. This includes the development of a draft Operational Manual setting out the procedures for inspections, designation of OSI equipment specifications, acquisition of a limited amount of inspection equipment for testing and training purposes, and development of a long range Training and Exercise Programme to develop a cadre of potential inspectors.

17. The production of the initial draft rolling text of the Manual marked a major achievement in 2001. The PTS is preparing for the seventh OSI workshop in Beijing in October 2001, a field experiment and equipment testing in Slovakia, September-October 2001, and the second Experimental Advanced Course in France in November this year.

18. Training is an important activity of the PTS. The focus of IMS training is to train personnel involved in station operation for the four IMS technologies. The IDC provides six-month training courses to increase the understanding of the functioning of the IDC as well as to enlarge the pool of possible candidates for analyst positions. The PTS has conducted five OSI Introductory Training Courses with over 170 trainees from about 40 States Signatories.

19. The concept of evaluation of the establishment and future operation of the CTBT verification regime is being developed. Evaluation relates to quality and efficiency, as well as to value for money considerations, all of which are of primary interest to States Signatories.

20. The PTS opened its offices in Vienna on 17 March 1997. Today, more than 250 staff from nearly 70 countries form the PTS. The number of staff in the Professional category is over 155. The PTS is committed to a policy of equal employment opportunities. The representation of women in Professional positions is more than 27%. The approved budget for the Commission for 2001 is \$83.5 million. As of September 2001, over 84% of assessed contributions had been received. The collection rate for assessed contributions have been constantly high, with over 98% received for the years 2000 and 1999.

21. From 1997 up to the financial year 2001, total budgetary resources approved for the Preparatory Commission amounted to \$324.1 million. Of this amount, \$250.8 million have been dedicated to verification related programmes. Non-verification-related programme funds as a percentage of total budgetary resources have remained consistently low. They are at 17% in the budget for the current year.

22. Regarding legal matters, various arrangements have been concluded with States to regulate the Commission's activities at nearly 300 IMS facilities. The Agreement to Regulate the Relationship between the Commission and the UN entered into force in 2000. Pursuant to the agreement, the PTS and the UN Secretariat regularly consult on issues of joint interest and the Commission also participates in the UN security arrangements in the field. An agreement with the UNDP on the provision of operational support services and an arrangement on the use of the UN laissez-passer by officials of the Commission were concluded in December 2000 and are being implemented.

23. In line with facilitating contacts with New York based Permanent Missions, the Commission established a non-resident liaison office at UN Headquarters in November 2000. An agreement providing for cooperation between the Commission and the WMO has been approved by the Commission and by the WMO Executive Council and it will enter into force in 2003.

24. In its interaction with States, the PTS has placed emphasis on the 44 States whose ratification is necessary for the Treaty to enter into force, as well as on the 89 States hosting IMS facilities. The four regional International Cooperation Workshops held to date, in Beijing, Cairo, Istanbul and Lima, have pointed out the benefits of the Treaty to the region and its States as well as the importance of national implementation measures and Treaty signatures and ratifications.

25. The PTS in all its outreach activities stresses the benefits of Treaty participation not only from the security aspect, but also in the civil and scientific applications of the verification technologies. It aims to enhance understanding of the significance of the Treaty and the work of the Commission, with a view to increasing participation of States in this work and to advancing signature and ratification of the Treaty.

Thank you