
COMPREHENSIVE NUCLEAR TEST BAN TREATY (CTBT)

Opened for Signature: 24 September 1996.

Duration: Indefinite

Number of Signatories: 177

Number of Ratifications: 138

Number of Signatures of the 44 States noted in (Article XIV) Annex 2: 41

Number of Ratifications of the 44 States noted in (Article XIV) Annex 2: 34

Depository: UN Secretary-General.

Treaty Text

Structure: The Comprehensive Nuclear Test Ban Treaty (CTBT) itself includes a Protocol in three parts: Part I detailing the International Monitoring System (IMS); Part II on On-Site Inspections (OSI); and Part III on Confidence-Building Measures (CBMs). There are also two Annexes to the Protocol: Annex 1 detailing the location of various Treaty monitoring assets associated with the IMS; and Annex 2 detailing the parameters for screening events.

Basic Obligations: The CTBT bans any nuclear weapon test explosion or any other nuclear explosion (i.e., true zero yield).

Organization: The Treaty establishes a CTBT Organization (CTBTO), to be located in Vienna, to ensure the implementation of its provisions, including those provisions for international verification measures.

Verification and Compliance:

Verification: The Treaty's verification regime includes an international monitoring system (IMS) composed of seismological, radionuclide (16 laboratories), hydroacoustic and infrasound monitoring; consultation and clarification; on-site inspections; and confidence-building measures. The use of national technical means, vital for the Treaty's verification regime, is explicitly provided for. Requests for on-site inspections must be approved by at least 30 affirmative votes of members of the Treaty's 51-member Executive Council. The Executive Council must act within 96 hours of receiving a request for an inspection.

Compliance: The Treaty provides for measures to redress a situation and to ensure compliance, including sanctions, and for settlement of disputes. If the Conference or Executive Council determines that a case is of particular gravity, it can bring the issue to the attention of the United Nations (Article V of Treaty).

Amendments: Any State Party to the Treaty may propose an amendment to the Treaty, the Protocol, or the Annexes to the Protocol. Amendments shall be considered by an Amendment Conference and shall be adopted by a positive vote of a majority of the States Parties if no State Party casts a negative vote.

Withdrawal: Each State Party has the right to withdraw from the CTBT if it decides that extraordinary events related to the subject matter of the Treaty have jeopardized the State Party's supreme national interests.

Entry into Force: The Treaty will enter into force 180 days after the date of deposit of the instruments of ratification by all States listed in Annex 2 to the Treaty, but no earlier than two years after its opening for signature. Annex 2 lists the following 44 States, Algeria, Argentina, Australia, Austria, Bangladesh, Belgium, Brazil, Bulgaria, Canada, Chile, China, Colombia, Democratic People's Republic of Korea, Democratic Republic of the Congo, Egypt, Finland, France, Germany, Hungary, India, Indonesia, Islamic Republic of Iran, Israel, Italy, Japan, Mexico, Netherlands, Norway, Pakistan, Peru, Poland, Republic of Korea, Romania, Russian Federation, Slovakia, South Africa, Spain, Sweden, Switzerland, Turkey, Ukraine, United Kingdom, United States of America, and Vietnam. The aforementioned States are members of the [Conference on Disarmament \(CD\)](#) with nuclear power and/or research reactors. If the Treaty has not entered into force three years after the date of its opening for signature, a conference of the States that have already deposited their instruments of ratification may convene annually to consider and decide by consensus what measures, consistent with international law, may be undertaken to accelerate the ratification process in order to facilitate the early entry into force of this Treaty.

Of the 44 States included in Annex 2 required for entry into force of the CTBT, all have signed with the

exceptions of the DPRK, India, and Pakistan. Those of the Annex 2 44 States which have signed but not ratified include Algeria, China, Colombia, Democratic Republic of the Congo, Egypt, Indonesia, Iran, Israel, the United States, and Vietnam.

The current Bush administration's policy on the CTBT is that while it has no plans to seek reconsideration of the Senate's refusal to ratify the Treaty, it intends to maintain its moratorium on nuclear testing, in effect since 1992. This leaves both the United States and China as the remaining nuclear weapon States to ratify the CTBT.

Review Conference: Ten years after entry into force, a Conference of the States Parties will be held to review the operation and effectiveness of the Treaty.

Comprehensive Nuclear Test Ban Treaty Organization (CTBTO): The CTBTO consists of two organs, the Preparatory Commission (a plenary body) and the Provisional Technical Secretariat (PTS).

Provisional Technical Secretariat (PTS): The PTS began its work on 17 March 1997 and has an international staff of approximately 200 members from 64 countries. The PTS cooperates with the host countries in the development and running of an international network of 321 monitoring stations.

Preparatory Commission: The main task of the Preparatory Commission is to establish a global verification regime as foreseen in the Treaty so that it will be operational by the time the Treaty enters into force. A worldwide network of 321 monitoring stations will be built and run by the host countries in cooperation with the Provisional Technical Secretariat. Some 100 stations are already transmitting data to the International Data Center (IDC) in Vienna via satellite-based global communications infrastructure. Procedures for on-site inspections and CBMs will be developed.

The Preparatory Commission has three subsidiary bodies: Working Group A on administrative and budgetary matters, Working Group B on verification issues, and the Advisory Group on financial, budgetary, and associated administrative issues. Both Working Groups make proposals and recommendations for consideration and adoption by the Preparatory Commission at its plenary sessions. Ambassador Patricia Cantellano of Mexico is Chairman of Working Group A and Dr. Ola Dahlman of Sweden is Chairman of Working Group B. The Advisory Group, with Andre Gue of France as its chair, is composed of experts of international standing serving in a personal capacity.

Developments:

2007: The Republic of Moldova deposited its instruments of ratification to the United Nations Secretary-General on 16 January 2007, bringing the total number of state parties to 138. Moldova's ratification is of particular significance as it completes the ratification of the treaty by all states in Europe.

2006: Part II of the 27th session of the Preparatory Commission convened from 13-17 November. A total of 93 states participated. Ambassador Yelchenko of the Ukraine served as chairperson of the commission.

During the plenary, state signatories welcomed the ratifications of the CTBT by Andorra, Armenia, Bosnia and Herzegovina, and Ethiopia, and the succession to the treaty by Montenegro. States that have not ratified the CTBT, particularly those designated as Annex 2, were urged to do so without delay.

State signatories also supported the recommendation of Working Group B, for the commission to adopt the principles and operating rules for the provision of data to tsunami warning organizations. The CTBTO will provide real time and continuous data from primary seismic, auxiliary seismic and hydroacoustic IMS stations to relevant tsunami warning organizations.

The special session, Part I of the Preparatory Commission, was recalled whereby a large number of states signatories had made statements expressing deep concern and regret regarding the announcement by the DPRK that it had conducted a nuclear test. The statements released by the executive secretary and chairperson respectively soon after the aforementioned event, were also noted. Participants expressed their views that the event underlined the need for the early completion of the verification regime, including the noble gas stations, for the early entry into force of the treaty.

A number of states signatories expressed their support for the request of Palestine to be granted "observer status." The issue lacked consensus, and therefore requested the next chairperson of the commission to attempt to bring the matter to a conclusion.

In his report to the commission, the executive secretary emphasized that the DPRK event provided for an opportunity for the PTS to demonstrate its technical capabilities. He expressed encouragement at the positive feedback and appraisals received from states parties. The executive secretary also called attention to the lower collections rate than previous years.

Permanent Representative of Costa Rica Ana Teresa Dengo will serve as the next chairperson of the Preparatory Commission, which is scheduled for June 2007.

On 20 October 2006, Executive Secretary Tibor Toth [addressed](#) the 61st Session of the United Nations General Assembly. He expressed hope that, despite the recent announcement by the DPRK that it had conducted a nuclear test, the international community would refocus its attention on bringing the treaty into force and to complete the build-up of the verification system.

On 9 October 2006, in reaction to the announcement by the Democratic People's Republic of Korea that it had conducted a nuclear test, both the chairman of the 27th Preparatory Commission, Volodymyr Yelchenko and executive secretary of the CTBTO, Tibor Toth, issued [statements](#) in their respective capacities.

On 13 October 2006, (Part 1) a Special Session of the Preparatory Commission convened in connection with the announcement by the DPRK that it carried out a nuclear test on 9 October 2006. The Special Session was organized as the first part of the 27th Session of the Preparatory Commission. The Special Session was opened by the chairperson of the Preparatory Commission, Ambassador Volodymyr Yelchenko, the permanent representative of Ukraine.

At the plenary meeting of the Special Session, the PTS delivered a briefing on the data of the International Monitoring System and standard products of the International Data Center to state signatories in connection with the aforementioned announcement. The commission considered the presentation and expressed appreciation to the PTS both for its presentation and professional work in providing reliable data to state signatories without delay. Also at the plenary meeting, a large number of states signatories expressed their deep concern and regret over the declaration by the DPRK that it had conducted an underground nuclear test.

This year marks the 10th anniversary of the opening for the signature of the CTBT. In commemoration of the occasion, as well as to promote increased interaction between the scientific community worldwide, the Preparatory Commission for the CTBTO and State Signatories to the treaty, a symposium entitled "CTBT: Synergies with Science 1996-2006 and Beyond" was held at Kongresszentrum Hofburg, Vienna from 31 August to 1 September. Statements were delivered by Preparatory Commission Executive Secretary [Tibor Toth](#), United Nations Under-Secretary-General for Disarmament Affairs [Nobuaki Tanaka](#), as

well as a keynote address by IAEA Director-General Mohamed ElBaradei. Particularly appealing to those states that have not yet ratified the CTBT, all speakers underlined the contribution the CTBT would make, upon entry-into-force, in strengthening the nonproliferation regime.

Co-chaired by Australia, Canada, Japan, Finland, and the Netherlands, and signed by 59 foreign ministers, the third annual [Joint Ministerial Statement](#) in support of the CTBT was delivered in New York by Under-Secretary-General for Disarmament Affairs Tanaka on 20 September. The statement affirmed the urgent need for the treaty to enter into force as it would contribute significantly towards preventing the proliferation of materials, technologies, and knowledge that can be used for nuclear weapons.

The 26th session of the Preparatory Commission convened from 20 to 23 June. In his report, the executive secretary expressed his concern about outstanding assessed contributions, stating that if the current trend were to continue, a significant cash deficit should be expected. It was reported that despite its financial situation, the PTS made substantial progress in the establishment of the treaty verification regime; five additional IMS stations were certified, bringing the total number of certified IMS facilities to 167 out of 337 and 11 new IMS stations were connected to the International Data Center (IDC), moving the number of stations in IDC operations past the 50% mark.

During the plenary debate member states welcomed the ratification of the CTBT by Antigua and Barbuda, Cameroon, Cape Verde, Haiti, Suriname, and Zambia since the last session of the Preparatory Commission. Member states particularly welcomed the ratification of Vietnam, an Annex 2 state. Vietnam's ratification brings the total number of Annex 2 state ratifications to 34, of which a further 10 are required for entry into force of the treaty. Other states that have ratified the CTBT in 2006 include Andorra and Ethiopia.

Furthermore, the PTS was requested to prepare an options paper on a possible contribution of the commission to tsunami warning systems. It is understood that data from IMS stations can contribute to decreasing substantially the time span needed for issuing a timely tsunami warning.

In February 2006, Working Group B endorsed the planning for the preparation and conduct of an On-Site Inspection (OSI) Integrated Field Exercise (IFE) to be held in the latter half of 2008. OSIs are a fundamental component of the CTBT verification regime. The exercise aims at integrating the efforts of the various units of the PTS that will contribute to the

execution of an OSI. The PTS is currently in the planning phase.

The PTS is also continuing its outreach activities aimed at enhancing the understanding of the treaty and the work of the Preparatory Commission. The most recent outreach activity took place in Kuala Lumpur from 31 May to 2 June, in the form of a workshop designed to promote ratification of the treaty while exploring the prospects of increased regional and sub-regional cooperation in the installation of IMS stations.

The 27th session of the Preparatory Commission will convene from 13 to 17 November.

2005: The Preparatory Commission held its 25th session from 14-18 November.

At the 25th session, state signatories welcomed the successful outcome of the Conference on Facilitating the Entry into Force of the Comprehensive Test Ban Treaty held in New York in September. State signatories also welcomed the adoption of a [Final Declaration and Measures to Promote the Entry into Force of the CTBT](#), given recent disappointments at the multi-lateral level in the field of disarmament and non-proliferation.

Participants to the 25th session welcomed the signature of the Treaty by Lebanon, and its ratification by the Cook Islands, Djibouti, Madagascar and Vanuatu.

Broad support was expressed for the recommendations of the final report on the review of the organizational structure of the Provisional Technical Secretariat (PTS). The twenty sixth session will be held in June of 2006.

The Preparatory Commission held its 24th session from 27-30 June.

The 24th session welcomed the signature of the CTBT by the Bahamas and Rwanda and ratification by Rwanda and Saint Kitts and Nevis. States Signatories also expressed their regrets concerning the outcome of the Treaty on the Non-Proliferation of Nuclear Weapons (NPT).

The commission welcomed for review the final report on the review of the organizational structure of the PTS. States Signatories noted that the recommendations of the team should be examined by Working Groups A and B and adopted by the commission before their implementation. The commission decided that Working Groups A and B should convene a joint meeting to analyze recommendations in detail.

The 25th session of the Preparatory Commission will be held 14-18 November.

In accordance with Article XIV of the CTBT, the Conference on Facilitating the Entry into Force of the Treaty will be held 21-23 September at the United Nations Headquarters in New York City.

2004: The Preparatory Commission held its 23rd session from 22-24 June and its 24th session from 15-19 November.

In January, Ambassador Yukio Takasu, Japan's Permanent Representative to the CTBTO Preparatory Commission, began his duties as the chair of the commission. He was elected chair during the Twenty-First Session of the commission in November 2003. At this session, State signatories also agreed to extend the tenure of the chair of the commission from six months to one year.

Libya deposited its instrument of ratification of the Comprehensive Nuclear Test-Ban Treaty with the United Nations Secretary-General on 6 January 2004. As part of the terms of the Treaty, Libya agreed to host a radionuclide station, RN41, at Misratah. This station will be part of the 337-facility International Monitoring System used to verify compliance with the Treaty.

The 22nd Session of the Preparatory Commission was held from 22 to 24 June. The Executive Secretary of the Preparatory Commission, Ambassador Wolfgang Hoffman, noted that 130 stations and 4 radionuclide laboratories are participating in the first system-wide performance test which is being carried out by the (PTS). He also informed delegates that 83 stations and 4 laboratories of the 337 IMS facilities are now certified, and that legal arrangements between the commission and Members States have been made to establish 332 IMS facilities in 81 countries. During the session, Member States welcomed the signature of the CTBT by Saint Kitts and Nevis and the Sudan, as well as the ratification of the Treaty by Bahrain, Belize, the Libyan Arab Jamahiriya, Serbia and Montenegro, Seychelles, and the Sudan. In addition, Tunisia announced the completion of its internal ratification process. The commission determined that Timor Leste would be included in the South East Asia, Pacific and the Far East geographical region.

On 23 September, the foreign ministers of 42 nations issued a second Joint Ministerial Statement calling upon all states to sign and ratify the CTBT, specifically identifying the 12 states whose ratifications are necessary for the treaty's entry into force and which have yet to ratify the treaty. The ministers continued to call for the maintenance of voluntary moratorium on nuclear testing. These calls were echoed by UN Secretary-General Kofi Annan, who appealed to states to sign and ratify the treaty and encouraged the

signatories of the joint statement to continue their efforts to promote the treaty's entry-into-force.

The 23rd session of the Preparatory Commission took place 15-19 November. States Signatories welcomed the signature of the CTBT by United Republic of Tanzania and ratification by the Democratic Republic of the Congo, Liechtenstein, Togo, Tunisia, and the United Republic of Tanzania.

States Signatories also noted the progress of the external review team on the organizational structure of the PTS, underlining the importance of transparency and a balance between technical and political aspects, as well as major policy issues in the review process. States Signatories also noted the importance of a review of the organization and methods of work of the subsidiary bodies, and support was expressed for informal consultations on the issue to be held in 2005.

At this session, the commission elected HE Ambassador Taous Feroukhi, Permanent Representative of Algeria, as the chair for 2005.

On 19 November, the commission appointed, by acclamation, Ambassador Tibor Toth as the next executive secretary.

2003: The Preparatory Commission held its 20th session from 24-27 June and its 21st session from 10-14 November.

The 20th session of the Preparatory Commission was held from 24-27 June. States Signatories welcomed the signature of the CTBT by Gambia and ratification by Albania, Cote d'Ivoire, Kuwait, Mauritania and Oman, as well as the completion of the national ratification procedure in the Libyan Arab Jamahiriya since the previous session of the commission. They also welcomed the resolution on "Inter-American support for the CTBT" adopted by the Organization of American States at its General Assembly in June 2003.

From 3-5 September, in accordance with Article XIV of the CTBT, the third Conference on Facilitating the Entry into Force of the Treaty was held in Vienna. All States, both signatories and non-signatories, were invited to attend the Conference as well as specialized agencies, international governmental organizations, and non-governmental organizations.

Afghanistan was the only non-signatory to address the Conference. The United States was not officially represented at the meeting. A representative of International Physicians for the Prevention of Nuclear War addressed the Conference on behalf of non-governmental organizations.

The Final Declaration adopted by the Conference reaffirmed "the importance of the Treaty and its entry into force for the practical steps for the systematic and progressive efforts towards nuclear disarmament and nuclear non-proliferation." The Declaration noted with concern that despite the progress made and the international community's strong support for the CTBT, the Treaty had not entered into force seven years after its opening for signature.

The Declaration contained 12 recommended measures to promote the CTBT's entry into force, including regional seminars to increase awareness of the Treaty's important role, the provision by the CTBTO's Provisional Technical Secretariat of legal assistance to States for the ratification process and implementation measures, and the establishment of a contact point for better exchange and dissemination of relevant information. The Conference also encouraged cooperation with civil society.

A key issue at the Conference was the fear that further delay in the CTBT's entry into force could lead to a resumption of nuclear testing, resulting in the acquisition of nuclear weapons by terrorists. Delegates also emphasized the need for the universal and complementary application of all instruments dealing with nuclear disarmament and nonproliferation.

The 21st session of the Preparatory Commission was held 10-14 November. States Signatories welcomed the recent ratifications of Afghanistan, Algeria, Cyprus, Eritrea, Honduras, Kuwait, Kyrgyzstan, and Oman. States Signatories also welcomed the successful outcome of the Article XIV conference and the adoption by consensus of a Final Declaration and Measures to Promote the Entry into Force of the CTBT.

Also discussed by the commission was the impending internal reform of the PTS. States Signatories agreed on the importance of a timely review of the organizational structure of the PTS. The commission also proposed that the organization and methods of work of the subsidiary bodies be reviewed as well. In addition, States Signatories discussed the possible adoption of a split currency system, beginning with the Programme and Budget for 2005, in order to deal with the adverse effects of currency fluctuations. Further research into the topic was delegated to working groups.

On 13 November, the Preparatory Commission elected HE Ambassador Yukio Takasu, Permanent Representative of Japan, as the chair for 2004.

2002: The Preparatory Commission held three sessions: the 17th PrepCom took place from 9-12 April,

the 18th from 19-22 August, the 19th from 11-15 November.

At its 17th session, the Preparatory Commission welcomed the signature of the CTBT by Central African Republic and ratification by San Marino of the CTBT since the closure of the previous session of the commission and urged all States to share legal and technical information and advice to facilitate the process of signature, ratification, and implementation of the Treaty. The States appreciated the PTS efforts to follow up the recommendations of the external evaluation on the management of human resources. They also expressed wide support for the possible agreement between the commission and OPANAL.

On 29 April, the Republic of Palau signed a Facility Agreement with the Preparatory Commission. This agreement facilitates the activities of the PTS on Palau in establishing and certifying monitoring facilities to IMS standards.

The PTS installed the 100th satellite earth station (VSAT) on 30 May. VSATs, very small aperture terminals, are a key element in the global communications infrastructure (GCI), which transmits data from the facilities of the IMS to the IDC in Vienna.

At the 18th session of the PrepCom, the States Parties welcomed the ratification of the CTBT by Burkina Faso, Kazakhstan, and Venezuela. Various views were expressed on the initial draft 2003 Program and Budget Proposals. The States Parties noted the PTS efforts to keep the administration costs at the minimum level.

On 14 September, Australia, Japan, and the Netherlands hosted a “Friends of the CTBT” Foreign Minister’s Meeting at the UN Headquarters to promote the treaty’s entry-into-force. The meeting was attended by the foreign ministers of 10 nations: Austria, Hungary, Japan, Jordan, the Netherlands, New Zealand, Peru, the Republic of Korea, South Africa, and Turkey. These ministers, along with the ministers of Canada, Chile, France, Nigeria, the Philippines, Russia, Sweden, and the United Kingdom, issued a Joint Ministerial Statement calling for all states that have not signed or ratified the CTBT, in particular the states whose ratifications are required for the treaty’s entry into force, to do so as soon as possible. The statement also calls for a continuation of the moratorium on nuclear testing.

At the 19th session of the PrepCom, the commission welcomed the signatures by San Marino, Samoa, Georgia, Niger, and Botswana ratified the Treaty in 2002.

2001: On 14 March, the commission signed the Sixteenth Facility Agreement with Peru that would enable the Commission to establish a new auxiliary seismic station and upgrade the existing auxiliary station on its territory.

The Commission held three sessions: the 14th session from 24-27 April, the 15th session from 21-24 August, and the 16th session from 19-23 November.

At its 14th session, the PrepCom welcomed the nine ratifications to the CTBT (by Benin, Croatia, Guyana, Kenya, Nicaragua, the Philippines, Saint Lucia, Uganda, and Ukraine) since the previous session and called on States that had not yet signed or ratified the Treaty to do so without delay. The States noted with satisfaction the progress made in the implementation of the seven major programs of the PrepCom, and the progress made in the development of the draft rolling text of the OSI Operational Manual.

At the 15th session of the PrepCom, the States Parties welcomed the ratifications (by the Holy See, Malta, and Namibia) and signature (by Yugoslavia) since the previous session and reiterated the importance of the 2001 Conference on Facilitating the Entry into Force of the CTBT.

From 11-13 November, in accordance with Article XIV of the CTBT, the second Conference on Facilitating the Entry into Force of the Treaty was held in New York. All states, both signatories and non-signatories, as well as specialized agencies, international governmental organizations, and non-governmental organizations were invited to attend the conference. The United States decided not to attend.

The conference adopted a Final Declaration, which reaffirmed the commitment of States Parties to work for the universal ratification of the treaty and its early entry into force. The States Parties noted the progress that had been made in the ratification process and the fact that this progress had been sustained. They noted with regret, though, that the treaty had not entered into force five years after it opened for signature and stressed their determination to strengthen efforts aimed at promoting the treaty's entry into force at the earliest possible date. The States Parties called on all states to maintain a moratorium on nuclear weapon test explosions or any other nuclear explosions and welcomed progress in building a global infrastructure for treaty verification, including the IMS. The declaration called on those states that had not yet signed the treaty or ratified it, to do so, particularly those states whose signature is required for the treaty's entry into force, including nuclear weapon states (NWS).

At the 16th session of the PrepCom, the States Parties welcomed the signatures (by Belize, Cameroon, and Libya) and ratifications (by Costa Rica, Ecuador, Jamaica, Latvia, Nauru, Nigeria, Paraguay, Singapore, Sierra Leone, and Uruguay) of the Treaty since the previous session. The States Parties emphasized the importance of the CTBT for international peace and security, especially after the 11 September 2001 terrorist attacks on New York and Washington, DC.

2000: In his statement on 25 April at the 2000 NPT Review Conference, Wolfgang Hoffmann, Executive Secretary of the Preparatory Commission for the CTBT, noted that a background paper NPT/CONF.2000/2 prepared by the United Nations Secretariat for this Review Conference, offered comprehensive information on the CTBT and its global verification system. The global verification system comprises an IMS; consultation and clarification; on-site inspections; and CBMs – to ensure the reliable detection and identification of any ambiguous event, and to provide a credible deterrent to clandestine nuclear testing. The paper stated that the CTBT is thus more than the expression of the intention of each State Party not to carry out nuclear explosions. It is, at the same time, also a commitment by each State signatory to ensure the Treaty's viability by establishing a regime to monitor adherence and to detect violations.

The Hoffmann paper added that one of the main tasks of the Preparatory Commission is to build up the worldwide network of stations that comprise the IMS. This cost-effective network of 170 seismological, 60 infrasound, 11 hydroacoustic, and 80 radionuclide stations – supported by 16 radionuclide laboratories – 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 by a nuclear explosion. The stations will transmit a steady stream of data generated by these four complementary technologies, in near real time, via a global satellite communications system to the IDC, (at the seat of the PrepCom in Vienna), where all the data will be processed. All data, raw or processed, from the monitoring facilities will be made available to the States signatories. There are provisions on consultation and clarification for dealing with ambiguous events. As a final verification measure, an on-site inspection may be requested.

Ambassador Hoffmann also noted that the CTBTO was building up the IMS according to a schedule determined by its annual program and budget. From the start of its operations in 1997 up to and including the 2000 fiscal year, the amount of money budgeted for capital investment in establishing or upgrading

monitoring stations is US\$92.1 million. This sum represents about 43 percent of the total capital investment required to complete the entire monitoring network.

The CTBTO had also readied the IDC, the nerve center of the verification regime, for the first analysis of data, transmitted from IMS stations via the GCI. With the installation of the second of four releases of application software, in 1999, the IDC is capable of distributing IMS data and IDC bulletins and additional information to States signatories seven days a week to assist them in verifying Treaty compliance.

The Hoffmann paper also reviewed the CTBTO after three years of its work: 10 facility agreements or arrangements have been signed, of which five have entered into force. In addition, 57 States have completed interim exchanges of letters; 204 IMS site surveys have been completed, where required. Site surveys for 53 additional stations are either under way or pending contract; and 77 site surveys for the GCI have been completed. In many cases, these site surveys and subsequent civil work were performed by or in cooperation with IMS staff. There are 88 IMS stations. The installation of 65 additional stations is either under way or pending contract. GCI very small aperture terminals (VSATs) have been installed at 26 of the IMS, National Data Centers, and developmental sites, with 41 more under way. Global satellite coverage was established with the commissioning of four GCI hubs and the frame relay infrastructure to link these hubs to the IDC in Vienna. GCI links to four independent sub-networks were commissioned, and a VSAT link to the independent sub-networks is now undergoing acceptance testing. Twenty-five IMS stations are sending data through the GCI and into the IDC on a test basis, with many more stations planned in 2000. The IDC established the capacity to receive and test data over the GCI.

Preparatory work was initiated in 2000 to provide, for the first time, test IMS data and IDC products to States signatories. The Commission is also preparing the groundwork for on-site inspections, provided for by the Treaty. The OSI Operational Manual is being developed as a priority task and the PTS has been supporting the Group of Friends of the OSI Program Coordinator. Initial specifications for equipment related to the four IMS technologies have been adopted and a passive seismic system for aftershock detection will be received shortly for testing and training, plans for which are being developed. On the invitation of the Government of Kazakhstan, a field experiment simulating aspects of an on-site inspection was conducted in Kazakhstan in October 1999, on the basis

of a 100-tonne chemical explosion for calibration purposes.

To help State signatories benefit from the CTBT and from the work of the commission, two International Cooperation Workshops were held in Vienna and Cairo and two more are scheduled in Beijing and Lima. They explored the possible uses of verification technologies and IMS data for other peaceful applications; examined the potential for regional or international cooperation in collecting, analyzing, and using data; highlighted the fundamental importance of the CTBT for global peace and security; and promoted signature and ratification of the Treaty. The support of State signatories has also been reflected in the collection rate of the assessed contributions, which is 100 percent for the 1996 budget, over 97 percent for 1997, over 96 percent for 1998, over 95 percent for 1999 and already close to 80 percent for 2000. The budget for 1998 was US\$58.4 million and for 1999 it was US\$74.7 million.

The Agreement to Regulate the Relationship between the United Nations and the Preparatory Commission for the CTBTO was signed in New York on 26 May by UN Secretary-General Kofi Annan and Executive Secretary Wolfgang Hoffmann. The Agreement will enter into force upon its approval by the UN General Assembly. The Preparatory Commission approved the Agreement during its 11th session, held from 2 to 5 May.

From 6-8 June, a Regional Workshop for CTBTO International Cooperation and National Implementation /Ratification Procedures was held in Beijing by the CTBTO PrepCom. The 47 participants from the Asia-Pacific region, *inter alia*, reviewed ways and means of promoting cooperation to facilitate the Treaty's verification technologies, and discussed ways to maximize benefits of the application of these technologies.

The 12th preparatory session took place in Vienna from 22-24 August. The State signatories welcomed the recent ratifications of the CTBT (Chile, Iceland, Portugal, and Russia) and commented on the progress made in the implementation of the verification programs. The commission considered reports of Working Group A and Working Group B and adopted the recommendations contained in the reports.

The first Conference on Facilitating the Entry into Force of the Comprehensive Nuclear-Test Ban Treaty was held in Vienna, from 6 to 8 October. The conference reaffirmed the importance of a universal and internationally and effectively verifiable comprehensive nuclear-test ban Treaty and pledged to keep working for universal ratification of the Treaty, and

its early entry into force, as provided for in Article XIV. The Conference's Final Declaration called upon all States that had not yet signed the CTBT to sign and ratify it as soon as possible and, until such time, to refrain from acts that would defeat its object and purpose.

The Preparatory Commission of the CTBTO held its 13th session in Vienna on 20-21 November. The signatory States welcomed recent signatures (Guyana, Kiribati, Nauru, Nigeria, and Sierra Leone) and ratifications (Belarus, Cambodia, Gabon, Kiribati, the Lao People's Democratic Republic, Maldives, and the UAE) of the CTBT and commented on the progress made in the implementation of the work program of the commission. The commission adopted a program of work and budget for 2001 totaling US\$83,499,500. Ambassador Jaap Ramaker of the Netherlands was elected as chair for the first half of 2001.

1993-1999: Negotiations on the CTBT began in 1993 in Geneva by the Conference on Disarmament, and the CTBT was adopted by the General Assembly as a resolution (A/RES/50/245) on 10 September 1996. The Treaty opened for signature on 24 September 1996, when it was signed by 71 States, including the five NWS. The nuclear weapon tests of India and Pakistan in May 1998 (both are Annex 2 States) were negative developments in the progress of the CTBT. To date, India and Pakistan have not signed the CTBT. On 13 October 1999, the United States Senate voted not to give its advice and consent to ratify the CTBT.

Point of Contact:

Executive Secretary: Ambassador Tibor Tóth (Hungary)

Preparatory Commission for the CTBTO
Provisional Technical Secretariat
Room E-0750
Vienna International Center
P.O. Box 1200, A-1400 Vienna
Austria
Tel: (431) 26030 6200
FAX: (431) 26030 5877
Website: <http://www.ctbto.org>