
COMPREHENSIVE NUCLEAR-TEST-BAN TREATY ORGANIZATION (CTBTO): DEVELOPMENTS

Established: 19 November 1996

Duration: Indefinite

Number of Signatories: 183

Number of Ratifications: 166

The [Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization](#) (CTBTO Preparatory Commission) is an international organization established at a meeting of States Signatories to the Treaty on 19 November 1996.

Developments:

2018: On 21 April, Executive Secretary Lassina Zerbo [praised](#) North Korea's announcement of halting nuclear testing. Zerbo encouraged North Korea to sign and ratify the CTBTO and pledged CTBTO assistance.

On 23 April, Executive Secretary Lassina Zerbo delivered a [statement](#) on behalf of the CTBTO at the Preparatory Committee for the 2020 NPT Review Committee. Executive Secretary Zerbo touted the successes of CTBTO's International Monitoring System (IMS), praised international efforts for the denuclearization of North Korea, and urged bringing the CTBT into force.

On 12 June, Executive Secretary Lassina Zerbo issued a [statement](#) on behalf of the CTBTO on the U.S.-DPRK Singapore Summit. The statement praised the undertaking of a direct dialogue between the two states and offered the CTBTO's verification services, if requested.

In May, a CTBTO team [met](#) with senior officials in Pakistan for the organization's first meeting within the country. Although Pakistan is an Annex 2 state that has yet to sign the Treaty, the country affirmed support for the treaty and remains an observer to the CTBTO's PrepCom.

From 9-10 July, the CTBTO [hosted](#) the Meeting of the Legal Advisors of the United Nations at its headquarters in Vienna. The participants discussed issues of common concern and explored ways to strengthen collaboration.

On 13 August, Executive Secretary Lassina Zerbo [visited](#) the Republic of Korea and met with ROK Foreign Minister Kang Kyung-wha. The two discussed the current situation regarding the DPRK, with Zerbo commending Kyung-wha for the ROK's efforts in establishing dialogue with the DPRK and offering the support of the CTBTO, if needed.

2017: On 19-20 January, Executive Secretary Lassina Zerbo [visited](#) France where he met with the Foreign Minister Jean-Marc Ayrault and other high ranking officials. France reaffirmed its support for the CTBT.

On 20 February, the CTBTO [reported](#) that all radionuclide (RN) stations of the International Monitoring System (IMS) are working normally. The CTBTO stated that no detections of iodine-131 above historical levels have been detected in the last several months. This was in response to a raft of news stories about heightened levels of radioactive iodine in Europe around this time.

On 23 February, Japan [contributed](#) US\$ 2.43 million to the CTBTO to further boost its verification abilities.

On 21 March, Federica Mogherini, the EU High Representative for Foreign Affairs and Security Policy and Vice President of the European Commission, gave the [keynote address](#) at the Carnegie International Nuclear Policy Conference in Washington, D.C. Mogherini emphasized the need for ratification by the remaining Annex 2 states in order to complete the International Monitoring System.

On 21 April, Executive Secretary Lassina Zerbo and the Russian Federation [called](#) for the entry into force of the CTBT.

On 2 May, Executive Secretary Lassina Zerbo [addressed](#) the First Session of the Preparatory Committee for the 2020 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons. Secretary Zerbo emphasized the importance of the early entry into force of the CTBT and universality. The statement also condemned nuclear testing by the DPRK.

On 20 June, the CTBTO announced the [completion](#) of the hydroacoustic part of its International Monitoring System (IMS), increasing the CTBTO's capability to monitor the oceans for signs of nuclear explosions.

The CTBTO held its [sixth](#) Science and Technology Conference from 26 to 30 June in Vienna, Austria. The conference highlighted progress in verification technology and affirmed the role of women and youth in the goal of ending nuclear testing.

CTBTO Executive Secretary Lassina Zerbo reacted to North Korea's 3 September nuclear test by calling the test a wake-up call to the international community.

On 16 December, China [announced](#) that it had established five CTBTO-certified nuclear test monitoring stations, all built and certified within 2017.

2016: On 14 January, Executive Secretary Lassina Zerbo [met](#) with German Foreign Minister Frank-Walter Steinmeier in Vienna, Austria. The Foreign Minister reiterated Germany's support for the Treaty and promised continued contributions to help both the Treaty and the Organization.

On 1-3 February, Executive Secretary Lassina Zerbo [visited France](#) where he met with high-ranking officials. Amongst them was French Foreign Minister Laurent Fabius. Zerbo implored France to use its leadership position to help bring about the entry into force of the Treaty. France also reiterated its active support for the CTBT.

On 7 March, the CTBTO [announced](#) that two new nuclear monitoring stations will be constructed in Ecuador.

On 31 March, following the Nuclear Security Summit in Washington D.C. Japan and Kazakhstan issued a [joint statement](#) reaffirming their efforts to achieve a world free of nuclear weapons and the early entry into force of the CTBT.

On 11 April, the President of Russia, Vladimir Putin, delivered a [statement](#) marking the 20th anniversary of the CTBT being opened for signature.

On 27 April, a panel discussion took place that included UN Secretary General Ban Ki-Moon. The panel is part of a series of events during 2016 to celebrate the 20th anniversary of the CTBT opening for signature.

On 16-20 May, the United States National Nuclear Security Administration [hosted](#) the on-site inspection Nevada Familiarization Activity at the Nevada National Security Site.

On 13 June, the [20 Years CTBT Ministerial Meeting](#) opened in Vienna, Austria with more than one hundred and twenty delegations in attendance.

On 21 June, Executive Secretary Lassina Zerbo [met](#) with Israeli Prime Minister Benjamin Netanyahu. Zerbo and Netanyahu discussed Israel's support for the CTBT as well as their cooperation on verification-related issues.

On 30 June, the IAEA and CTBTO signed [a practical arrangement](#) on nuclear emergencies. This arrangement solidifies the cooperation between the two organizations in the area of response to nuclear or radiological emergencies.

On 7 July, Executive Secretary Lassina Zerbo [briefed](#) the European Union's Parliament Foreign Affairs Committee on the CTBT.

On 7 September, Armenia and the CTBTO [concluded](#) a Facility Agreement for the auxiliary seismic station in Garni.

On 9 September, the Democratic People's Republic of Korea [announced](#) its fifth nuclear test.

On 12 July, UN Secretary General Ban Ki Moon submitted a [report](#) on the efforts of States towards the universalization of the CTBT.

On 15 September, the Nuclear Nonproliferation Treaty Nuclear-Weapons States issued a [joint statement](#) on the CTBT. The statement reaffirms the moratoria on nuclear weapons testing the entry into force of the CTBT.

On 21 September, Swaziland and Myanmar [ratified](#) the treaty, bringing the total number of states to 166.

On 21 September, the Eighth Ministerial Meeting of the Friends of the CTBT was held in New York. Representatives issued a [call](#) for the prompt entry into force of the CTBT.

On 23 September, President Obama tabled Resolution 2310 at the UN Security Council. [UNSCR 2310](#) calls upon states to refrain from conducting nuclear tests and urges all states to sign and/or ratify the treaty "without further delay." The resolution

was adopted by the Security Council with 14 votes in favor and Egypt abstaining.

2015: On 24 February, the CTBTO concluded its [facility agreement](#) with Ecuador in legal and technical preparation for one infrasound and one radionuclide station, both projected to be built this year on the Galapagos Islands. The stations will assist both in verification and in regional disaster warning efforts. On 20 March, Angola ratified the CTBT, bringing the total number of ratifying states to 164. Angola signed the treaty on 27 September 1996.

On 1 April, CTBTO Executive Secretary Lassina Zerbo [gave an address](#) to diplomats in Vienna regarding the role of the CTBT in the upcoming 2015 NPT Review Conference, reiterating the importance of ratification of the CTBT as a “first priority.”

From 12-16 April, the CTBTO held a [workshop in Ramat-Gan, Israel](#), to analyze the on-site inspection exercise IFE14 held from 3 November- 9 December 2014 in Jordan. The workshop consisted of about 100 experts from 30 countries in nuclear physics, seismology, and other verification-related areas.

On 29 April, Executive Secretary Lassina Zerbo [addressed](#) the 2015 NPT Review Conference at UN headquarters in New York.

On 12-14 May, world experts in nuclear explosion monitoring and medical isotope producers [met](#) in Brussels, Belgium, exploring ways “to mitigate the effects on nuclear explosion monitoring of emissions from facilities that produce lifesaving medical isotopes without impacting production.”

On 18-19 June, the [44th session](#) of the Preparatory Commission (PrepCom) for the Comprehensive Nuclear-Test-Ban Treaty Organization was held in Vienna. CTBTO Executive Secretary Lassina Zerbo gave an [opening statement](#), reporting his recent visits to Israel, Sweden, and the Holy See. The PrepCom approved Cuba’s participation as an observer.

On 22-26 June, the CTBT Science and Technology 2015 Conference was held in Vienna, with participants from over 70 countries. The conference focused on [four themes](#): the earth as a complex system, events and their characterization, advances in sensors, networks and processing, as well as performance optimization. CTBTO Executive Secretary Lassina Zerbo delivered a [statement](#) during the opening session. He addressed the important developments since past conferences and the importance of technologies on nu-

clear security. He also called for the early entry into force of the CTBT. UN Secretary-General Ban Ki-moon sent a video [message](#) to the meeting, addressing the significance of the conference. Director-General of the Organisation for the Prohibition of Chemical Weapons (OPCW) also delivered a [speech](#).

On 25-26 June, the Group of Eminent Persons (GEM) meeting, organized by the Ministry of Foreign Affairs of the ROK, was [held](#) in Seoul, Korea. The group discussed CTBT’s legal effect as well as the situation on the Korean Peninsula and visited the Korean Demilitarized Zone (DMZ). The group issued the [Seoul Declaration](#), calling for the CTBT’s early entry into force.

On 15 July, Executive Secretary Lassina Zerbo officially [expressed support](#) for the Joint Comprehensive Plan of Action, characterizing it as a “significant milestone” towards non-proliferation and disarmament. On August 6, Executive Secretary Lassina Zerbo visited Japan in commemoration of the 70th anniversaries of the bombings of Hiroshima and Nagasaki and [renewed](#) the call for a total ban on nuclear testing.

From 24-25 August, the CTBTO’s Group of Eminent Persons ([GEM meeting](#)), organized by the Japanese government, was held in Hiroshima, Japan. The group met to discuss the practical ways to advance the entry into force of the Treaty. In his [opening statement](#), Executive Secretary Lassina Zerbo encouraged global leaders to carry out the momentum created by the agreement reached between the E3/EU+3 and Iran. The group issued the [Hiroshima Declaration](#), reaffirming their commitment towards achieving complete global elimination of nuclear weapons and calling for a “multilateral approach to engage the leadership of the remaining Annex 2 States with the aim of facilitating their respective ratification process.”

On 28 August, in observance of the International Day against Nuclear Tests, CTBTO Executive Secretary Lassina Zerbo provided [opening remarks](#) highlighting the robust verification regime as well as underscoring the importance of the entry into force of the Treaty.

On 29 September, the CTBTO held its [ninth Article XIV conference](#) at the United Nations headquarters in New York, USA. The conference was co-chaired by Fumio Kishida of Japan and Erlan Idrissov of Kazakhstan.

On 18 November, the CTBTO signed a [cooperation agreement](#) on on-site inspection activities with Slovakia.

On 19 to 25 November, CTBTO Executive Secretary Lassina Zerbo, at the invitation of the United States government, [visited](#) its nuclear labs, the Nevada National Security Site (Former Nevada Test Site), Stanford University and the Middlebury Institute of International Studies at Monterey.

2014: On 1 January, the CTBTO started receiving data from the IMS stations hosted by [China](#). According to the Executive Secretary, these stations will enhance the IMS's global coverage.

On 10 January, the CTBTO [announced](#) that it had upgraded its online services for member states. Through the IDC, Member States can now access the International Monitoring System (IMS) data and the IDC analyses.

On 14 January, the CTBTO Executive Secretary Lassina Zerbo was [voted](#) the “2013 Arms Control Person of the year.” Zerbo was lauded for his efforts to persuade China to allow data from their IMS stations to be transmitted back to the International Data Centre in Vienna, as well as information regarding North Korea's third nuclear test explosion in 2013.

On 21 January, Japan made a voluntary contribution of US\$455,000 to the CTBTO to support the further enhancement of the Treaty's verification system, as well as the newly-established GEM.

On 5 March, the state of Niue ratified the CTBT, following its signature of the treaty on 9 April 2012.

On 10 March, the CTBTO's International Data Centre successfully received data from the recently rebuilt hydroacoustic station HA03 at Robinson Crusoe Island, Chile. The station, which had been destroyed by a tsunami in 2010, passed full System Acceptance Testing and is undergoing a [further period of testing](#) prior to its final acceptance.

On 28 April, the CTBTO Executive Secretary Lassina Zerbo [warned](#) the Democratic People's Republic of Korea to refrain from conducting any further nuclear tests, asserting the strength of the International Monitoring System in detecting these tests.

On 4 September, the Republic of Congo became the 163rd State to ratify the CTBT.

On 3 November, the CTBTO commenced its largest-ever on-site inspection exercise in Jordan. The IFE14

included over 200 international experts, 150 tons of equipment, and required 4 years of preparation.

On 9 December, IFE14 concluded. CTBTO Executive Secretary Lassina Zerbo stated the Integrated Field Exercise IFE14 proved it is “absolutely hopeless” to hide a nuclear explosion from the CTBTO.

2013: On 10 January, Brunei Darussalam became the 158th nation to ratify the CTBT. Brunei signed the CTBT on 22 January 1997.

On 11 January, the Executive Secretary of the CTBTO, Tibor Tóth, and Austria's Minister of Social Affairs, Rudolf Hundstorfer, signed a Social Security Agreement between the CTBTO and the Republic of Austria. CTBTO staff will be given the opportunity to be covered by the Austrian social security system.

On 8 February, Chad became the 159th nation to ratify the CTBT. Chad signed the treaty on 8 October 1996.

On 12 February, the Democratic People's Republic of Korea conducted a nuclear test. The seismic waves were detected by 96 International Monitoring System stations and sent to the International Data Centre. Chairperson of the Preparatory Commission for the CTBTO, Ambassador Jan Petersen of Norway, and CTBTO Executive Secretary Tibor Tóth, gave statements in their respective [capacities](#).

On 15 February, the meteor that broke up over Russia's Ural Mountains produced infrasonic waves detected by seventeen infrasound stations in the CTBTO's International Monitoring System in the region. The waves are said to be the largest ever recorded.

From 18 to 20 March, over 40 academic specialists from a wide range of disciplines congregated for the CTBT Academic Forum as part of its [Capacity Development Initiative \(CDI\)](#). The focus was on promoting CTBT education and developing e-learning modules and educational resources related to the Treaty.

On 23 April the CTBT announced that its radionuclide network had made a significant detection of radioactive noble gases that could be attributed to the [nuclear test announced by the DPRK](#) on 12 February 2013. The detection was made at the [radionuclide station in Takasaki, Japan](#), located at around 1,000 kilometers, or 620 miles, from the DPRK test site.

Lower levels were picked up at another station in Ussuriysk, Russia

The [CTBT Science and Technology 2013 Conference](#) was held in Vienna from 17-21 June. The Conference intended to establish and expand partnerships between the scientific community and the CTBTO. More than 750 participants attended the Conference, and scientists made over 80 oral presentations and 250 poster presentations. [Conference objectives](#) were to “capitalize on scientific and technological innovations for verifying CTBT compliance, promote the wider scientific application of data that are used for test-ban verification, enhance the exchange of knowledge and ideas between the CTBTO and the broader scientific community, and enlarge the scientific community engaged in test-ban monitoring.”

Speakers at the Conference included former IAEA Director General Hans Blix, Siegfried S. Hecker, Patricia Lewis, Michel Miraillet, Ellen Tauscher, and UN Secretary-General Ban Ki-moon, who [reiterated](#) the need for early entry into force of the CTBT. Three major themes of the Conference were The Earth as a Complex System, Events and their Characterization, and Advance in Sensors, Networks, and Processing. Topics discussed at the Conference also [included](#) the February nuclear test of the DPRK, emissions by radiopharmaceutical plants, and non-verification uses of CTBTO data.

On 24 September, Guinea-Bissau ratified the CTBT.

On 26 September, the GEM was launched at United Nations Headquarters in New York. This group of experts was convened to advance the entry into force of the CTBT, by encouraging the remaining Annex 2 states to ratify the Treaty.

Also on 26 September, Iraq ratified the CTBT.

On 27 September, the 2013 Conference on Facilitating the Entry into Force of the CTBT was held at the United Nations in New York. Participants discussed efforts to encourage those states that are nuclear technology capable that have not yet ratified the CTBT to do so as soon as possible. There are 8 of these states, also known as Annex 2 states, which have not ratified the CTBT: China, the Democratic People’s Republic of Korea, Egypt, India, Iran, Israel, Pakistan, and the United States.

On 30 October, Angolan Foreign Minister Georges Chikoti announced at a national seminar on the CTBT that his country will complete the ratification process for the CTBT.

On 4 November, the [resolution](#) on the CTBT was adopted in the First Committee, with 175 States voting in favour. The resolution acknowledges the establishment of the Group of Eminent Persons in support of the effort for the CTBT to enter into force.

On 13 November, four new producers of medical isotopes signed [a pledge to reduce radioxenon emissions](#). The four companies from Australia, Indonesia, Korea, and the United States also agreed to share information on emission levels with the CTBTO. While radioxenon is not necessarily harmful to humans or the environment, it does have the capability to mask gas emitted from an underground nuclear test.

On 26 November, the CTBTO installed a new Atmospheric Transport Modelling (ATM) system with a voluntary contribution from Japan. The system is comprised of high-performance computing hardware that will allow the CTBTO to gather more detailed data on the source and past movement of airborne radioactive material, once it is detected by a CTBTO radionuclide monitoring station. The system can also predict where a cloud of radioactive material will travel if the emission’s location is known. The World Meteorological Organization provides the CTBTO with meteorological data for their calculations with the ATM.

On 2 December, the CTBTO announced that Jordan will host a full-scale CTBT OSI exercise, called the Integrated Field Exercise 2014 (IFE14), in November 2014. An OSI is a final verification measure under the Treaty and is conducted to determine whether or not a nuclear explosion has occurred.

2012: On 12 January, Guatemala became the 156th nation to ratify the CTBT. Guatemala signed the CTBT on 20 September 1999 and has regularly voted in favor of the Treaty in the United Nations General Assembly. Tibor Tóth, Executive Secretary of the Preparatory Commission for the CTBTO, noted that “Guatemala’s ratification of the CTBT is a boost for the Treaty of Tlatelolco, which will soon celebrate 10 years of being the world’s first nuclear-weapon-free zone to include all countries in the region.”

On 6 February, Indonesia became the 157th nation to ratify the CTBT after presenting the formal documentation to the United Nations Secretary General in New York. With Indonesia’s ratification complete, thirty-six Annex 2 states have now ratified the CTBT. Currently, eight Annex 2 states must ratify in order for the Treaty to be legally binding.

On 9 March, the CTBTO held a colloquium entitled *CTBTO Past and Future Contributions to Emergency Preparedness: Fukushima Case Study*. The colloquium discussed the use of CTBTO data to enable national authorities to issue timely tsunami warnings and assess the dispersal of radioactive emissions after a nuclear accident. All four verification technologies of the IMS contributed during the 11 March 2011 event: seismic sensors detected the Tokyo earthquake and its aftershocks; hydroacoustic stations recorded the rupture of the Earth's crust and the tsunami wave; the explosions at the Fukushima power plant were picked up by infrasound stations; and radionuclide stations detected the subsequent radioactive emissions.

On 30 March, the U.S. National Academy of Sciences released the unclassified version of a report entitled "[The Comprehensive Nuclear Test Ban Treaty: Technical Issues for the United States \(2012\)](#)" which reviews and updates a [2002 study](#) on technical issues regarding the CTBT. Since it is a technical report, it does not consider the political issue of the United States ratification of the CTBT; however, the report does acknowledge that the last decade saw advances in verification science and technology. It takes note of the impressive buildup of CTBTO's monitoring system, now [more than 80% complete](#), and its successes in detecting the nuclear tests by North Korea in [October 2006](#) and [May 2009](#).

On 9 April, [Niue became the 183rd](#) nation to sign the CTBT. Executive Secretary Tibor Tóth welcomed Niue's signature and stated that he hoped "this step will serve to encourage other Pacific Island States that have not yet done so to sign and/or ratify the Treaty at the earliest opportunity."

From 16 to 20 July, over 450 people from 91 countries participated in the CTBTO's Intensive Policy Course entitled "Multilateral Verification, Collective Security: The Contribution of the CTBT". This course was part of the CTBTO's CDI, which was launched by the Preparatory Commission with the objective of training and educating the next generation of CTBT experts.

On 5 to 11 August, CTBTO Head Tibor Tóth visited Japan. On 6 August, he laid a wreath at the Hiroshima Peace Memorial commemorating the 140,000 men, women and children who lost their lives in the 6 August 1945 atomic bombing of the city and its af-

termath. On 9 August, Toth also attended the Nagasaki Peace Memorial and honored the victims by laying a wreath at the Atomic Bomb Cenotaph. "What happened in Nagasaki must never be allowed to happen again," said the Executive Secretary and called upon all concerned leaders and citizens to redouble efforts for the early entry into force of the CTBT and for nuclear disarmament.

On 6 September, in observance of the International Day against Nuclear Tests, CTBTO Executive Secretary Tibor Tóth [addressed](#) the UN General Assembly. Tóth called for the entry into force of the CTBT and a halt to nuclear tests.

On 27 September, against the background of the 50th anniversary of the Cuban Missile Crisis, the Sixth Ministerial Meeting on the CTBT was convened in New York. The UN Secretary General Ban Ki-moon met with foreign ministers and other high-level representatives. They made a [joint statement](#) calling for the entry into force of the CTBT.

In October 2012, Lassina Zerbo from Burkina Faso was elected the new Executive Secretary of the CTBTO. He will take over from the current Executive Secretary, Tibor Tóth, on 1 August 2013.

From 12–23 November, the CTBTO's Capacity Development Initiative's played host to participants from 75 countries in their two-week Advanced Science Course, "Around the Globe and Around the Clock: The Science and Technology of the CTBT." The keynote speakers included Linton Brooks, former head of the U.S. National Nuclear Security Administration head; Wendy Watson-Wright, Executive Secretary of the United Nations Educational, Scientific, and Cultural Organization (UNESCO)-Intergovernmental Oceanographic Commission; and W. Lee Howell, Managing Director of the World Economic Forum.

On 26 November, the UN Secretary General Ban Ki-moon visited the CTBTO Office at Vienna. Current Executive Secretary Tibor Tóth and Executive Secretary-elect Lassina Zerbo briefed the Secretary General on the current activities and future prospects of the CTBTO.

2011: On 19 January, during Chinese President Hu Jintao's official state visit to Washington DC, the United States and China released a joint statement declaring that "both sides support early entry into

force of the CTBT” and “agreed to work together to achieve this goal.” Neither Annex 2 state has ratified the treaty.

On 27 January, Tibor Tóth, Executive Secretary of the Preparatory Commission for the CTBTO welcomed the ratification of New START by the Russian Duma. “The ratification of the New START Treaty by the Federal Assembly of the Russian Federation fulfills tireless effort on two continents and across the political spectrum that commits the Russian Federation and the United States to a new course in pursuing nuclear arms reductions,” said Tóth.

From 11 March to 13 April, the CTBTO IMS released accurate and timely data regarding the 9.0 magnitude earthquake in Japan and the global spread of radiation from Japan’s damaged Fukushima nuclear power plant. According to Japanese authorities, CTBTO data helped them to issue tsunami warnings within a few minutes of the earthquake. Several days later, IMS radionuclide stations began detecting radioactive particles in the air, allowing experts to confirm and track the spread of radiation leaked from the Fukushima plant. On 18 March, the CTBTO announced that it would begin sharing information with the IAEA and the World Health Organization in connection with the incident.

CTBTO Executive Secretary Tibor Tóth attended the third Global Platform for Disaster Risk Reduction in Geneva from 8 to 13 May to explain how the IMS could contribute to mitigating natural disasters such as volcanic eruptions and tsunamis.

On 14 June, Ghana became the 154th nation to ratify the CTBT. Ghana signed the CTBT on 3 October 1996 and a few weeks later, on 11 April 1996 the Treaty of Pelindaba, which has established a Nuclear-Weapon-Free Zone in Africa. In addition, in February 2010, Ghana commissioned its CTBT National Data Centre so that it can support international efforts to monitor nuclear weapons testing more effectively.

Also on 14 June, Rose Gottemoeller, U.S. Assistant Secretary for the Bureau on Arms Control, delivered remarks to the CTBTO Preparatory Committee in Vienna reaffirming the Obama administration’s commitment to ratifying the CTBT. Strong progress in setting up the IMS will make it easier to convince U.S. senators to support the treaty, she said. However, she resisted establishing a timeline for ratification, and also criticized the initial draft 2012 Program and Budget for establishing a zero real growth target.

On 6 September, the United States announced its voluntary contribution of \$25.5 million to the Preparatory Commission for the CTBT. The donation will be used to reconstruct the eleventh and the last hydroacoustic station, HA04, to be built as part of the IMS. The station will be located in the South of France.

On 20 September, Guinea became the 155th nation to ratify the CTBT. Guinea signed the CTBT on 3 October 1996, a few days after it opened for signature, and a few weeks before the establishment of a Nuclear Weapon-Free Zone in Africa (Treaty of Pelindaba). Guinea has voted in favor of the CTBT in the United Nations General Assembly regularly. Only three African countries have yet to sign the CTBT, Mauritius, Somalia and South Sudan, and another 7 countries have not ratified the Treaty: Comoros, Egypt, Equatorial Guinea, Gambia, Sao Tome and Principe, Swaziland and Zimbabwe.

On 23 September, Foreign ministers from around 100 countries met at the United Nations Headquarters in New York for the Conference on Facilitating the Entry into Force of the Comprehensive Nuclear-Test Ban Treaty. The Conference sought to promote the entry into force of the treaty that bans all nuclear testing. The Final Declaration and Measures to Promote the Entry into Force of the Comprehensive Nuclear-Test Ban Treaty included 10 practical measures to accelerate the ratification process and bring the Treaty into force.

On 24 October, Member States endorsed plans to enhance on-site inspection capabilities, specifically approving \$10.3 million USD budget for the next Integrated Field Exercise (IFE) – an on-site inspection exercise – to be held in 2014. The last IFE was successfully conducted in Kazakhstan on 2008.

From 15-17 November, the Preparatory Commission of the CTBTO and the Government of Turkey held a workshop on the “[Role of the CTBT in regional and global security](#)” in Istanbul, Turkey. The aim of the workshop was to promote the entry into force of the CTBT. Around 70 participants from 30 countries attended. Similar workshops were held in 2001 and 2008.

On 30 November, The Indonesian Parliament’s Defense and Foreign Policy Commission adopted the draft legislation for the ratification of the CTBT, which will be given to the plenary body for final approval in December.

On 6 December, the Indonesian Parliament approved the ratification of the CTBT, but Indonesia's approval of the Treaty will only become official after it is presented to the United Nations.

2010: On 13 January, Kanat Saudabayev, Secretary of State and Minister of Foreign Affairs of Kazakhstan, visited the CTBTO and reaffirmed his country's commitment to the organization. Kazakhstan holds the 2010 chairmanship of the Organization for Security and Cooperation in Europe.

On 28 January, the CTBTO announced that it had completed replacing all IDC data processing machines with Linux machines. This change allows the IDC to accomplish more work in less time. It also allows data authentication, simulations, and atmospheric transport modeling to be carried out with greater precision.

On 3 February, CTBTO Executive Secretary Tibor Tóth and UNESCO's Director General Irina Bokova signed an agreement that committed both organizations to cooperate more on tsunami early warning systems and capacity building in developing countries.

On 17 February, Australian Foreign Minister Stephen Smith committed his country to encourage nations in the Asia Pacific to sign and ratify the CTBT. This occurred during a meeting with CTBTO Executive Secretary Tibor Tóth.

The CTBTO IMS contributed to the rapid alerts issued by tsunami warning centers in the Pacific region following an 8.8 magnitude earthquake in Chile on 27 February. According to the CTBTO, data from 20 seismic and hydroacoustic stations were forwarded in real time to tsunami warning centers in the region.

On 30 April, Indonesia's Foreign Minister Marty Natalegawa announced that Indonesia would soon ratify the CTBT without waiting for the United States and China to ratify first. The CTBT was submitted to the Indonesian Parliament for ratification on 5 May.

The Central African Republic and Trinidad and Tobago deposited their instruments of ratification on 26 May. These ratifications took place during the last week of the [NPT](#) Review Conference. 182 countries have now signed the CTBT and 153 countries have ratified.

On 26 May, the CTBTO announced the opening of a new test facility at Conrad Observatory in Austria. At this testing facility, engineers will be able to study

and refine seismic and infrasound detection equipment, two of the four technologies the IMS uses to detect nuclear explosions.

On 28 May, the 2010 NPT Review Conference adopted a Final Document. CTBTO Executive Secretary Tibor Tóth emphasized the importance of the entry into force of the CTBT for strengthening the NPT.

On 24 September, Member States convened at the United Nations in New York for the treaty's fifth biennial ministerial meeting gathering foreign ministers from over 70 countries. In a joint Ministerial Statement, the foreign ministers declared "We commit ourselves individually and together to make the Treaty a focus of attention at the highest political level and to take measures to facilitate the signature and ratification process as recommended in the 2010 NPT Review Conference Final Document."

The CTBTO's Thirty-Fifth Session was chaired by Ambassador Xolisa Mfundiso Mabhongo (South Africa) and took place from 8-9 November at the Vienna International Center. CTBTO Executive Secretary Tibor Tóth addressed the progress in development of the Treaty's verification system, management and oversight, the capacity development initiative, the 2011 science and technology conference, the African Nuclear-Weapon-Free-Zone, and current support for the Treaty. Participants discussed future programs and budget proposals, future meeting schedules, and ways that additional support could be provided for CTBTO activities. The CTBTO working groups provided summaries of their activities and offered recommendations. The organization also conducted elections and appointments. The Commission elected Ambassador Igor Davidović, Permanent Representative of Bosnia and Herzegovina, as its Chairperson for 2011. The Commission decided to appoint Mr. Mehdi Aliabadi (Islamic Republic of Iran), Ms. Cinthia Echavarria (Argentina) and Mr. Ichiro Ogasawara (Japan) as members of the Advisory Group for a term of three years with effect from the date of their appointments.

On 17 November 2010, The Council of the European Union and the CTBTO signed an agreement that will provide the CTBTO's Preparatory Commission with €5,280,000 for the purpose of strengthening the treaty's monitoring and verification capabilities. Executive Secretary Tibor Tóth stated that the EU's contribution was a demonstration of their unwavering support to the treaty.

On 13 December, the United Nations General Assembly adopted without vote a resolution (A/65/L.34) on cooperation between the UN and the CTBTO. The resolution was introduced by Johan Paschalis of South Africa and was co-sponsored by more than 40 countries.

2009: At the 2009 NPT Preparatory Committee, held 4 to 15 May in New York City, [positive statements](#) were made in regards to the early entry into force of the CTBT. In particular, the U.S. and China delegations, both Annex 2 States who have not yet ratified the Treaty, stated they would pursue ratification of the CTBT.

On 25 May, the Democratic People's Republic of Korea conducted a nuclear test, in which at least 61 IMS stations detected the explosion. IMS seismic stations measured the event at 4.52 on the Richter scale, slightly higher than DPRK's 2006 nuclear test, which was measured at 4.1. This event demonstrated the CTBT verification regime's capability of reliably detecting small yield nuclear tests. Member States of the CTBTO were notified of the event hours before the announcement of the test by the [DPRK. Chairman of the Preparatory Commission Peter Shannon](#) and [Executive Secretary Tibor Tóth](#) both made statements immediately after the announcement of the test, condemning the DPRK's actions.

The CTBTO Preparatory Commission hosted the [International Scientific Studies \(ISS\) Conference](#) from 10-12 June 2009 at the Hofburg Congress Center in Vienna, Austria. Around 500 scientists from over 80 countries around the world were invited to participate in the ISS Conference. Scientists assessed the capability of the CTBT's [verification regime](#) to detect nuclear explosions anywhere in the world. More than 200 scientific posters were submitted to the conference, studying and assessing the verification regime's ability to detect a nuclear explosion, covering the areas of atmospheric transport, data mining, hydroacoustics, infrasound, on-site inspection, radionuclide analysis, seismology and system performance. The scientists praised the verification regime and acknowledged that its infrastructure and methods of analysis had greatly improved over the last decade.

On 2 July 2009, Saint Vincent and the Grenadines signed the Comprehensive Nuclear-Test-Ban Treaty, becoming the 181st country to sign the Treaty. With the signing of Saint Vincent and the Grenadines, 30

of the 33 Latin American and Caribbean States are now signatories to the Treaty.

On 17 August 2009, Liberia ratified the CTBT, becoming the 149th State to have done so. With this newest ratification, 37 of the 53 African countries have now ratified the Treaty. Approximately two months after signing the CTBT, Saint Vincent and the Grenadines became the 150th State to ratify the Treaty on 23 September 2009. Louis Straker, Deputy Prime Minister and Minister of Foreign Affairs, Commerce and Trade, deposited the instrument of ratification at the United Nations in New York preceding the commencement of the sixth Conference on Facilitating the Entry into Force of the CTBT. With this ratification, 29 of the 33 States in Latin America have now ratified the Treaty.

From 24-25 September, representatives from over 100 States, including nearly 40 Foreign Ministers, gathered at the United Nations Headquarters in New York for the Conference on Facilitating the Entry into Force of the CTBT (Article XIV Conference). This unique high-level gathering included U.S. Secretary of State Hillary Clinton. This marked the first time in nearly ten years that the United States had participated in the Conference, and the first time the United States had sent a senior American representative. Taking place concurrently with the conference was a United Nations Security Council summit, chaired by U.S. President Barack Obama, to discuss nuclear non-proliferation and disarmament. The Security Council unanimously adopted [Resolution 1887 \(2009\)](#) outlining steps that the international community would take in advancing the goal of a world free of nuclear weapons. Included in the resolution was a call to States to "refrain from conducting a nuclear test explosion and to sign and ratify the Comprehensive Nuclear Test Ban Treaty (CTBT), thereby bringing the treaty into force at an early date." With the added attention given to the Article XIV Conference due to the Security Council meeting and the first ever visit by a senior U.S. representative, Member States unanimously approved a [Final Declaration](#) calling on all States who have not done so, to sign and ratify the CTBT at the earliest possible date.

As of 6 October 2009, the CTBTO had certified 239 IMS Stations, including 40 primary seismic stations, 90 auxiliary seismic stations, 42 infrasound stations, 10 hydroacoustic stations, and 57 radionuclide stations. In addition to these 239 stations, there are 10 radionuclide laboratories. With the latest certifica-

tions, 70% of the 337 CTBT verification and monitoring facilities has now been certified.

On 8 October, Trinidad and Tobago signed the CTBT, bringing the number of CTBT State Signatories to 182. With the ratification by Trinidad and Tobago, Cuba and Dominica are the only States in Latin American and the Caribbean that have not signed the Treaty. On 29 October, the Marshall Islands became the 151st State to ratify the CTBT.

On 17 November, CTBTO officials announced that the 250th facility in the International Monitoring System had been certified, making the system 74% complete.

2008: On 12 February 2008, the Permanent Representative of Sweden, Ambassador Hans Lundborg, was elected the Chairperson of the Preparatory Commission for 2008. Ambassador Lundborg expressed a sense of optimism with regard to the prospects for the Treaty's entry into force, noting that already in 2008 three States had ratified the CTBT, including one Annex 2 State (Colombia). The Chairperson commented on the U.S. decision to fund the CTBTO with \$24 million in 2008, stating that the money was "crucial if the CTBTO is to deliver on the build-up of the verification regime."

From 3-5 March, over 60 scientists from 30 countries met in Vienna for the launch of an ISS project to evaluate the CTBT verification system. In June 2009, scientists will present research on the four verification technologies, system-wide performance, on-site inspection capabilities, atmospheric transport modeling, and new possibilities for IT analysis.

The CTBTO signed tsunami warning agreements with Japan on 11 August and with Australia and the Philippines on 12 September. These new arrangements will use the IMS network to add two and a half minutes of warning time onto each country's civilian system.

On 24 September, a joint ministerial conference was held at the UN in New York to promote the Treaty's entry into force. 96 countries endorsed the [joint statement](#), and speakers included Secretary General Ban Ki-Moon, former U.S. Defense Secretary William Perry, and UN Messenger of Peace, actor Michael Douglas. Shortly after the ministerial meeting, Burundi ratified the treaty, and Timor Leste signed, bringing the number of signatories to 180 and the number of ratifying states to 145.

An OSI simulation took place the entire month of September near the former Soviet nuclear test site in Semipalatinsk, Kazakhstan. The inspection team correctly ascertained that the contrived seismic event was not likely to be a nuclear explosion. Argon sampling technology was utilized for the first time ever in a field exercise, and the CTBTO learned many practical lessons by operating in challenging, realistic conditions.

November was an important month for the CTBT as three more States ratified the Treaty, bringing the total number of ratifications to 148. Mozambique ratified on 4 November. Malawi and Lebanon both ratified on 21 November. The Treaty, however, still lacks the required 44 Annex 2 State signatures and ratifications needed for the Treaty to enter into force. India, Pakistan and the DPRK have yet to sign the Treaty, while the United States, China, Israel, Iran, Egypt, and Indonesia have signed but not ratified. Indonesia signed a tsunami warning agreement with the CTBTO on 10 November.

The work of the 31st Session of the Preparatory Commission was concluded in just two days of meetings (17-18 November) even though four were scheduled. This reflected a sense of common purpose among member states and a renewed commitment to the Treaty and the work of the organization. There were feelings of optimism that this period marked the beginning of the political change necessary for entry into force. As expected, Ambassador Tibor Tóth was reappointed for another four-year term as executive secretary.

2007: On 17 March 2007, the Provisional Technical Secretariat (PTS) commemorated its 10th anniversary. On this day, the number of IMS transmitting data to the IDC was 193. The PTS began work on 17 March 1997 with nine staff members headed by Ambassador Wolfgang Hoffmann: by its 10th anniversary, the PTS had 254 staff members.

The 28th session of the Preparatory Commission convened from 19 to 22 June 2007. The budgetary situation dominated the session as the Commission encouraged States to pay their assessed contributions in full and in a timely manner. Executive Secretary Tibor Tóth also requested that Member States consider, on an exceptional basis, providing additional resources to the Commission. The Executive Secretary announced he had decided to implement exceptional

austerity measures to avoid a provisional cash deficit in 2007.

During a regional CTBTO workshop in Manila, Philippines, the Pacific Island State of Palau announced that it had completed the national ratification process. The workshop was held from 27-29 June 2007 and aimed to promote Treaty ratification in the South East Asia, the Pacific and the Far East (SEAPFE) CTBT regional grouping. The three main issues addressed at the workshop were the political significance of the Treaty, verification technologies and capacity building, and civil and scientific applications of the IMS.

From 17 to 18 September 2007, in accordance with Article XIV of the CTBT, the fifth Conference on Facilitating the Entry into Force of the Treaty was held at the Hofburg in Vienna, Austria. Acting on behalf of the Secretary-General of the United Nations (the depository of the Treaty), United Nations High Representative for Disarmament Affairs, Mr. Sergio Duarte opened the Conference on 17 September 2007. The Foreign Ministers of Austria and Costa Rica, H.E. Ursula Plassnik and H.E. Bruno Stagno Ugarte, shared the presidency of the Conference.

There were 106 States Signatories and States that had already ratified the Treaty participating in the Conference. Three states that had not yet signed the Treaty, Iraq, Barbados, and Pakistan, attended the Conference with observer status. The International Atomic Energy Agency (IAEA), the Organization for the Prohibition of Chemical Weapons (OPCW), the Organization for Security and Cooperation in Europe (OSCE), as well as 16 non-governmental organizations also attended the Conference. India, the United States, and the Democratic People's Republic of Korea – all Annex 2 States – were absent from the Conference.

On 18 September 2007, the Conference adopted by consensus a [Final Declaration](#), which outlined measures to promote the entry into force of the CTBT. In the Declaration, States noted the “overwhelming support for the Treaty and its entry into force” as expressed by the “United Nations General Assembly and other multilateral organizations and initiatives.” States also “affirmed the importance and urgency of signatures and ratifications without delay to achieve early entry into force of the Treaty as one of the practical steps for the systematic and progres-

sive efforts towards nuclear disarmament and nuclear nonproliferation.”

Since the 2005 Article XIV Conference, one State had signed the CTBT, while 15, including one Annex 2 State, had ratified the Treaty. The most recent ratifications came from the Republic of Palau and the Dominican Republic on 1 August and 4 September, respectively. At the close of the Conference, 140 States had ratified the Treaty, including 34 of the 44 Annex 2 States (all Annex 2 States must ratify the Treaty before it enters into force).

In preparation for an IFE planned for September 2008 in Kazakhstan, the CTBTO held a training exercise in Hungary on 30 October simulating an on-site inspection. The exercise conducted at Semipalatinsk, the former Russian nuclear test site, involved over 60 scientists and experts in verification technology.

From 12 to 14 November 2007, the Preparatory Commission of the CTBTO held its 29th Session. HE Ambassador Jennifer Macmillan, Permanent Representative of New Zealand and Vice-Chairperson of the Commission opened the session on 12 November in the absence of the Chairperson of the Commission, HE Ambassador Ana Teresa Dengo, Permanent Representative of Costa Rica. A total of 99 States Signatories participated in the meeting.

Executive Secretary Tibor Tóth presented his oral address at the first plenary meeting, addressing the financial situation of the organization in 2007, the 2007 Conference on Facilitating the Entry into Force of the CTBT, verification achievements, restructuring of the PTS, and the 2008 Program and Budget.

With regard to the implementation of austerity measures and shortfall in payments of assessed contributions, contingency margins of approximately \$16 million were imposed on a number of PTS activities. However, there was a significant increase in payment of full and partial assessed contributions. The number of States Signatories paying in full rose by roughly one third from 2006. The funding shortfall for 2007 stood at \$22.5 million, down from \$24.5 million reported in June 2007.

During the plenary meeting, some States encouraged the PTS to expedite its implementation of the decision of the 27th Session of the Commission regarding

the provision of data to tsunami warning organizations.

A group of States requested that the Palestinian Ambassador brief the Preparatory Commission on Palestine's application for observer status with the Commission. A large number of States Signatories supported the request for observer status for Palestine. After having a series of consultations, the Chairperson reported to the Commission that there was still no consensus regarding the request. The Chairperson kept the request on the agenda and continued to consult with interested delegates on the issue.

As of 8 December 2007, a total of 141 States had ratified the CTBT, and 177 have signed. Out of the 321 monitoring stations in the IMS, 212 had been fully certified, while 10 out of 16 total radionuclide laboratories had been certified. New state of the art Computer and Operations Centers had also been installed within the PTS. The CTBTO is also in the process of migrating to a new Global Communications Infrastructure (GCI).

2006: In February 2006, Working Group B endorsed the planning for the preparation and conduct of an OSIIFE 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 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 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; an additional 10 ratifications 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.

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.

On 9 October 2006, in reaction to the announcement by the DPRK 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 I) 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 States 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.

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.

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

During the plenary, States 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.

States 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 test, were also noted. Participants noted that the event underlined the need for the early completion of the verification regime, including the noble gas stations, and 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 States requested that the next chairperson of the Commission attempt to resolve the matter.

In his report to the Commission, the executive secretary emphasized that the DPRK test provided 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 in 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.

2005: 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 2005 Review Conference of the Parties to the 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.

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

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

At the 25th session, States Signatories welcomed the successful outcome of the Conference on Facilitating the Entry into Force of the CTBT held in New York in September. States 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 multilateral level in the field of disarmament and nonproliferation.

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 PTS. The 26th session will be held in June of 2006.

2004: 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 21st session of the Commission in November 2003. At this session, States 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 CTBT 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 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 Commis-

sion. 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.

The Commission also discussed 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 Program 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 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 -- including an IMS; consultation and clarification procedures; on-site inspections; and CBMs – ensures the reliable detection and identification of any ambiguous event, and provides 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 viabil-

ity 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 \$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 sta-

tions. 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 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. On the invitation of the Government of Kazakhstan, a field experiment simulating aspects of an on-site inspection of a 100-tonne chemical explosion was conducted in Kazakhstan in October 1999.

To help States 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 States 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 \$58.4 million and for 1999 it was \$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 States 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 CTBT 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 \$83,499,500. Ambassador Jaap Ramaker of the Netherlands was elected as chair for the first half of 2001.

Point of Contact:

Executive Secretary: Lassina Zerbo (Burkina Faso)
 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/>