PROGRAMME

SYMPOSIUM:
SCIENCE & DIPLOMACY
FOR PEACE & SECURITY

25 Jan – 4 Feb 2016
Vienna International Centre

#CTBT20
25 January
Monday

**Opening Session**

09:30  Opening keynote address by CTBTO Executive Secretary Lassina Zerbo
10:00 Welcoming remarks by Bente Angell-Hansen, Permanent Representative of Norway
10:10 Remarks by Cristian Istrate, Permanent Representative of Romania and Chair of the Preparatory Commission
10:20 Keynote Address by David Strangway, President Emeritus, University of British Columbia and Canada Foundation for Innovation
11:00 Interview with Joseph Cirincione, President, Ploughshares Fund
11:10 Group Photo
11:20 Coffee break

**The CTBT: Where did it come from, where is it going?**

12:00  **20 Years On: Reflections on the Negotiations of the CTBT**

A panel discussion on the negotiations of the Treaty featuring former lead negotiators in the Conference on Disarmament who played key roles in the Treaty’s negotiation. The panel will explore the dynamics that led to the final Treaty text, including Article XIV, and offer the opportunity to reflect on the current impasse with regard to the Treaty's entry into force.

*Moderator: Jaap Ramaker, Chairman of the CTBT negotiations in 1996*

*Panellists:*
- Wolfgang Hoffmann, CTBTO Executive Secretary Emeritus and former German Ambassador to the Conference on Disarmament
- Itshak Lederman, former Director of External Relations, Israel Atomic Energy Commission
- Sha Zukang, former United Nations Under-Secretary-General for Economic and Social Affairs
- Victor Slipchenko, former CTBT deputy chief negotiator for Russia
- Michael Weston, former UK Ambassador to the Conference on Disarmament
- Mohamed Mounir Zahran, former Egyptian Ambassador to the Conference on Disarmament

13:30 Lunch

15:00  **Achieving Entry into Force: Confronting the Challenge 20 Years Later**

A moderated debate with members of the Group of Eminent Persons and the coordinators of the CTBT Article XIV process on the geopolitical climate shaping conditions for ratifications in the remaining Annex 2 States, and potential high-level multilateral initiatives that could be undertaken to create conditions conducive to entry into force of the Treaty.

*Moderator: Daryl Kimball, Executive Director, Arms Control Association*

*Panellists:*
- Nobuyasu Abe, Vice Chairman of the Japan Atomic Energy Commission, former United Nations Under-Secretary-General for Disarmament Affairs
- Wolfgang Hoffmann, CTBTO Executive Secretary Emeritus and former German Ambassador to the Conference on Disarmament
- Angela Kane, former United Nations High Representative for Disarmament Affairs
- Mitsuru Kitano, Permanent Representative of Japan and Co-coordinator of the Art XIV Process
- Susan le Jeune d’Allegeershekke, Permanent Representative of the United Kingdom
- Kairat Sarybay, Permanent Representative of Kazakhstan and Co-coordinator of the Art XIV Process
- Tebogo Seokolo, Permanent Representative of South Africa
- Sha Zukang, former United Nations Under-Secretary-General for Economic and Social Affairs

17:30 **Briefing on the Symposium Programme and Requirements, the Executive Council Simulation, and the Practical Exercise**

*Jean du Preez, Chief, External Relations, Protocol and International Cooperation Section, CTBTO*

18:00 **Reception Co-hosted by the CTBTO and the Permanent Mission of Norway**
26 January
Tuesday

Science for Peace and Security: From Nuclear Testing to Multilateral Arms Control Verification

09:30 Nuclear Testing and the Arms Race
Expert presentations and discussions on nuclear weapons technology, the decision-making process in nuclear testing, and the linkages between nuclear testing and the arms race.

Moderator: Randy Bell, Director, International Data Centre Division, CTBTO

Presenters:
James Acton, Co-Director, Nuclear Policy Program, Carnegie Endowment for International Peace
Pierce Corden, Visiting Scholar, American Association for the Advancement of Science
Zia Mian, Director, Project on Peace and Security in South Asia, Princeton University

11:00 Coffee break

11:15 Practical Exercise on Nuclear Testing (Matthew Yedlin, University of British Columbia)

12:00 Lunch break

Panel Discussion: Where's the News? (Under-) reporting on the CTBT
The CTBT and its verification system are arguably one of the great under-reported news stories. A panel of journalists and media professionals, following the format of an “Oxford Union debate”, will consider the following motion: If nuclear weapons and nuclear testing are a great risk to life on earth, are news media failing the public by not paying them more attention?


Panellists:
Louis Charbonneau, United Nations Bureau Chief, Thompson Reuters, New York
Rachel Oswald, CQ Roll Call, Washington, DC
Tal Shalev, i24, Tel Aviv
Siddhartha Varadarajan, The Wire, New Delhi

13:30 Keynote Address by Paul Richards, Special Research Scientist, Lamont-Doherty Earth Observatory, Seismology Geology and Tectonophysics

14:00 The Foundation of the CTBT Verification Regime
A panel discussion to reflect on how the CTBT verification regime as it stands today, including the on-site inspection capability, measures up against expectations and technical capabilities in the '80s and '90s, and how the verification technologies are implemented 20 years later.

Moderator: Pierce Corden, Visiting Scholar, American Association for the Advancement of Science

Panellists:
Elisabeth Blanc, Research Director, Commissariat à l’Energie Atomique
Itshak Lederman, former Director of External Relations, Israel Atomic Energy Commission
Svein Mykkeltveit, Norwegian Seismic Array (NORSAR)
Joachim Schulze, Chairperson of the CTBTO PrepCom Working Group B
Gerardo Suárez, National Autonomous University of Mexico
John J (Jay) Zucca, Principal Deputy Global Security Directorate, Lawrence Livermore National Laboratory

15:30 Break

16:00 The Future of Multilateral Arms Control Verification: Lessons from the CTBT
A panel discussion on how the CTBT and its verification regime contributed to arms control and non-proliferation arrangements and what lessons should be drawn from the CTBT for future arrangements.

Moderator: Laura Rockwood, Executive Director, Vienna Center for Disarmament and Non-Proliferation

Panellists:
James Acton, Senior Associate, Nuclear Policy Program, Carnegie Endowment
Rebecca Johnson, Executive Director, Acronym Institute for Disarmament Diplomacy
Zia Mian, Director, Project on Peace and Security in South Asia at the Program on Science and Global Security, Princeton
Victor Slipchenko, former CTBT deputy chief negotiator for Russia
Tibor Tóth, CTBTO Executive Secretary Emeritus
**The CTBT and International Peace and Security**

**09:30** Rebooting Nuclear Security: CTBT Entry into Force and the Elimination of Nuclear Threats  
A panel discussion examining how entry into force of the CTBT connects with other interlinked issues in arms control, disarmament and non-proliferation, and nuclear security.

**Moderator:** Elena Sokova, Deputy Director, James Martin Center for Nonproliferation Studies

**Panellists:**
- Angela Kane, former United Nations High Representative for Disarmament Affairs
- Didier Lenoir, Head, Delegation of the European Union
- Tate Nurkin, Senior Director IHS Aerospace, Defense and Security Thought Leadership
- Wolfgang Rudischhauser, Director, WMD Non-Proliferation Centre, NATO
- Merav Zafary Odiz, Permanent Representative of Israel

**11:00** Coffee Break

**11:30** The CTBT as a Regional Confidence Building Measure  
A panel discussion on the role of the CTBT as a confidence building tool, in particular in North and South East Asia and the Middle East.

**Moderator:** Armin Ernesto Andereya Latorre, Permanent Representative of Chile

**Panellists:**
- Anton Khlopkov, Director, Center for Energy and Security Studies
- Waheguru Pal Singh Sidhu, Senior Fellow, Brookings India
- Mohammad Hassan Daryaei, Deputy Director-General for International Political and Security Affairs of the Ministry of Foreign Affairs of the Islamic Republic of Iran, and University Professor and Senior Disarmament Researcher
- Maria Sultan, Director General, South Asian Strategic Stability Institute

**13:00** Lunch

**The Legal and Institutional Framework of the CTBT**

**14:00** Understanding the CTBT: Scope, Obligations and Compliance  
A presentation on the key articles of the Treaty and national implementation of the Treaty’s obligations, highlighting concrete advantages of an enforceable CTBT.

**Sonya Brander,** Chief, Legal Services Section, CTBTO

**14:45** The Preparatory Commission and the Future Organization  
Discussion with the Chair of the Preparatory Commission, moderated by the Secretary of the Preparatory Commission

**Cristian Istrate,** Permanent Representative of Romania and Chair of the Preparatory Commission  
**Bozorgmehr Ziaran,** Secretary to the Preparatory Commission

**15:30** Coffee Break

**16:00** Enforceability of the CTBT: International Politics and International Law  
A panel discussion on the enforceability of the CTBT as an international norm, the role of nuclear test moratoria and ways to advance entry into force in accordance with international law.

**Moderator:** Abel Adelakun Ayoko, Permanent Representative of Nigeria

**Panellists:**
- Nobuyasu Abe, Vice Chairman of the Japan Atomic Energy Commission, former United Nations Under-Secretary-General for Disarmament Affairs
- Daryl Kimball, Executive Director, Arms Control Association
- Gabriella Venturini, University of Milan
The Role of Civil Society and Academia in Shaping Nuclear Policy

09:00 Civil Society in Support of the CTBT
A panel discussion on the role of civil society organizations and public advocacy groups in raising awareness of the CTBT and affecting public policy on broader nuclear disarmament and non-proliferation issues.

**Moderator:** Rebecca Johnson, Executive Director, Acronym Institute for Disarmament Diplomacy

**Panellists:**
Ayman Khalil, Director, Arab Institute for Security Studies
Anton Khlopkov, Director, Center for Energy and Security Studies
Daryl Kimball, Executive Director, Arms Control Association
Emily Landau, Senior Research Fellow, Head of the Arms Control and Regional Security Program, Institute for National Security Studies
Maria Sultan, Director General, South Asian Strategic Stability Institute

10:30 Academia as a Force Multiplier
A panel discussion on the value of encouraging CTBT-related research, both in the technical and political fields, in order to stimulate critical thinking on the Treaty.

**Moderator:** Elena Sokova, Deputy Director, James Martin Center for Nonproliferation Studies

**Panellists:**
Happymon Jacob, Associate Professor of Disarmament Studies, Jawaharlal Nehru University
Raymond Jeanloz, Professor of Astronomy, University of California Berkeley
Gerald Kirchner, Carl Friedrich von Weizsäcker Professor, University of Hamburg
Farhad Shahabi Sirjani, Senior Expert, Ministry of Foreign Affairs, Islamic Republic of Iran
Matthew Yedlin, Associate Professor, University of British Columbia

12:00 Lunch

CTBT Verification: Science for Peace and Security

12:30 Lunch Briefing, Evaluation of a Very Small Seismic Event in the DPRK, 12 May 2010

**Paul Richards,** Special Research Scientist, Lamont-Doherty Earth Observatory, Seismology Geology and Tectonophysics

14:00 Enhancing National Security through Science-based Verification
A moderated discussion exploring perspectives of the impact of the CTBT on national security.

**Moderator:** Patrick Grenard, Special Assistant, Office of the Executive Secretary, CTBTO

**Discussants:**
Raymond Jeanloz, Professor of Astronomy, University of California Berkeley
Gideon Frank, former Director General, Israel Atomic Energy Commission

15:30 Visit to the Institute of Atomic and Subatomic Physics at the Vienna University of Technology:
- Introduction to the work of the Institute of Atomic and Subatomic Physics
- CTBT Verification Science 101 for Diplomats:
  - Matthew Yedlin, Associate Professor, University of British Columbia
- Tour of the TRIGA Mark II research reactor
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<th>Time</th>
<th>Event</th>
<th>Speaker/Coordinator</th>
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<tr>
<td>09:30</td>
<td>Introduction and Overview</td>
<td>Nurçan Meral Özel, Director, International Monitoring System Division (IMS), CTBTO</td>
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<td>09:40</td>
<td>International Monitoring System Technologies: Purpose, status and challenges</td>
<td>Nurçan Meral Özel, Director, International Monitoring System Division, CTBTO</td>
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<td>10:15</td>
<td>IMS Data and International Data Centre (IDC) Products</td>
<td>Gerhard Graham, IDC Programme and Project Coordinator, CTBTO</td>
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<td>11:00</td>
<td>Coffee Break</td>
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<td>11:30</td>
<td>Panel Discussion: Roles, Responsibilities and Challenges Maintaining the IMS Verification System</td>
<td>Moderator: David Jepsen, IMS Coordinator, CTBTO, and Elisabetta Nava, IDC Radionuclide Operations Officer-Noble Gas, CTBTO</td>
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<td>Mohammad Hassan Daryaei, Deputy Director-General for International Political and Security Affairs of the Ministry of Foreign Affairs of the Islamic Republic of Iran, and University Professor and Senior Disarmament Researcher</td>
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<td>Oscar Rolando Elvir Ferman, Instituto Hondureño de Ciencias de la Tierra Carrera de Física de la UNAH</td>
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<td>Jan Fyen, Special Advisor, Norwegian Seismic Array NORSAR</td>
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<td>Zeinabou Mindaoudou Souley, President, Haute Autorité Nigerienne à l’Energie Atomique</td>
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<td>13:00</td>
<td>Lunch</td>
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<td>15:30</td>
<td>Civil and Scientific Uses of IMS Data and Case Study on the Fukushima Accident</td>
<td>Klas Elmgren, IDC Radionuclide Operations Officer, CTBTO</td>
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<td>16:15</td>
<td>Coffee Break</td>
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<td>16:30</td>
<td>Panel Discussion: The Way Forward for CTBT Technical Verification</td>
<td>Moderator: Gerardo Suárez, National Autonomous University of Mexico</td>
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<td>Federico Guendel, former Director, International Monitoring System Division, CTBTO</td>
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<td>Raymond Jeanloz, Professor of Astronomy, University of California Berkeley</td>
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<td>John J (Jay) Zucca, Principal Deputy Global Security Directorate, Lawrence Livermore National Laboratory</td>
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<td>18:00</td>
<td>Briefing on Simulation Exercise and Role Designation</td>
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CTBT Verification: On-site Inspections (OSI)

09:30  Introduction and Overview of OSI Activities and Techniques
       Peter Labak, Equipment and Implementation Officer, CTBTO
       Oleg Rozhkov, Director, On-Site Inspection Division, CTBTO

10:00  OSI Regime Implementation Challenges – Treaty and Protocol Issues
       Gordon MacLeod, Chief, OSI Policy Planning & Operations Section, CTBTO

10:45  Coffee Break

11:15  How to Become a “Surrogate” Inspector
       Ron Gavish, Chief, OSI Training Section, CTBTO

11:45  Continuous Development of the OSI Regime - Outcome of the Integrated Field Exercise 2014 (IFE14)
       A briefing and video presentation
       Hussam Al Husseini, Permanent Representative of Jordan and IFE14 Host-country Representative
       Oleg Rozhkov, Director, On-Site Inspection Division, CTBTO

12:30  Introduction to Point of Entry (POE)
       Gordon MacLeod, Chief, OSI Policy Planning & Operations Section, CTBTO

12:45  Table Top Exercise (TTE): Overview and Exercise Preparation
       Misrak Fisseha, OSI Training Officer, CTBTO

13:00  Lunch (optional tours of CTBTO facilities)

14:30  Table Top Exercise (Point of Entry)
       OSI Team

16:30  TTE Reporting/debriefing
       OSI Team/Participants

17:30  Meet OSI Experts: A panel discussion on how to get involved, support and join OSI activities with Q&A
       Moderator: Oleg Rozhkov, Director, On-Site Inspection Division, CTBTO

Panellists:
   Hongmei Deng, Chief, OSI Documentation Section, CTBTO
   Ron Gavish, Chief, OSI Training Section, CTBTO
   Peter Labak, Equipment and Implementation Officer, CTBTO
   Gordon MacLeod, Chief, OSI Policy Planning & Operations Section, CTBTO
Practical Options and Solutions after 20 Years

09:30 Entry into Force and the Future of the CTBT: Identifying Challenges and Obstacles after 20 Years

Introduction:
Genxin Li, Director, Legal and External Relations Division, CTBTO

Discussion: Challenges and obstacles to ensuring the sustainability of the Treaty and its verification regime
Jean du Preez, Chief, External Relations, Protocol and International Cooperation Section, CTBTO

11:00 Coffee Break

11:30 Entry into Force and the Future of the CTBT: Identifying practical options and solutions after 20 Years (Part 1)

Focus groups identify options for ensuring the sustainability of the Treaty and its verification regime, and make recommendations on practical options to advance entry into force of the Treaty.

13:00 Lunch (optional tours of the CTBTO facilities)

14:30 Entry into Force and the Future of the CTBT: Identifying practical options and solutions after 20 Years (Part 2)

Focus groups report back to the plenary on options discussed for ensuring the sustainability of Treaty and its verification regime and recommendations on practical options to advance entry into force of the Treaty

Discussants:
Pierce Corden, Visiting Scholar, American Association for the Advancement of Science
Ana Teresa Dengo, Representative of the United Nations University for Peace in Austria
Peter Rickwood, Atomic Reporters
Nikolai Sokov, Adjunct Professor and Senior Research Associate, The James Martin Center for Nonproliferation Studies

16:00 Mini-Workshop
Media experts and academics provide pointers on how to effectively use print and social media, blogs, and scholarly and other articles as means to advance awareness about the Treaty

Thomas Muetzelburg, Information Officer - Writer/Editor, CTBTO
Peter Rickwood, Atomic Reporters
Nikolai Sokov, Adjunct Professor and Senior Research Associate, The James Martin Center for Nonproliferation Studies

17:00 Introduction to Executive Council Simulation
Overview of the simulation scenario context and the rules
### Executive Council Simulation

#### 3 February

- **10:00**  Plenary Session 1
  - Technical briefing on suspicious event
  - Briefing on OSI launch phase activities
  - National statements
- **13:00**  Lunch
- **14:30**  Plenary Session 2
- **18:00**  End of Session

#### 4 February

- **09:30**  Plenary Session 3
- **12:30**  Lunch
- **14:00**  Plenary Session 4 and Conclusion of Simulation
- **17:00**  Closing Remarks by CTBTO Executive Secretary Lassina Zerbo
- **17:15**  Closing Keynote Address by Des Browne, Vice-Chairman of the Nuclear Threat Initiative and former UK Secretary of State for Defence
PUTTING AN END TO NUCLEAR EXPLOSIONS