



preparatory commission for the  
comprehensive nuclear test ban  
treaty organization

Vienna International Centre  
P. O. Box 1200  
A-1400 Vienna  
Austria

www.ctbto.org

## Note Verbale

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TEL NO +43 1 26030-6147

FAX NO +43 1 26030-5973

The Provisional Technical Secretariat of the Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization presents its compliments to the States Signatories to the Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization and has the honour to announce the "*International Hydroacoustics Workshop 2019 (IHW2019)*" which will take place from 8 to 11 July 2019 in VIC, Austria.

The Secretariat has further the honour to inform that nominations and registrations for the aforementioned workshop should be submitted to the Provisional Technical Secretariat not later than 1 April 2019.

The Provisional Technical Secretariat of the Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization avails itself of this opportunity to renew to the States Signatories to the Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization the assurances of its highest consideration.



Attachment

To all States Signatories

<b>Title</b>	<b>International Hydroacoustics Workshop 2019 (IHW2019)</b>
<b>Objectives</b>	<p>The objectives of IHW2019 is to support the CTBTO verification regime by creating a forum for scientific knowledge exchange on three main topics:</p> <ul style="list-style-type: none"> <li>• Technological advancements in marine engineering pertinent to the sustainability and improvement of the hydroacoustic component of CTBT's International Monitoring System (IMS),</li> <li>• Data analysis and signal processing methods for CTBT verification purposes, and</li> <li>• 3-D modelling for long-range hydroacoustic signal propagation.</li> </ul>
<b>Themes</b>	<ol style="list-style-type: none"> <li>1. Technological advancements in marine engineering pertinent to the sustainability and improvement of the hydroacoustic component of CTBT's International Monitoring System (IMS): <ul style="list-style-type: none"> <li>➤ Technology and engineering trends in Ocean Observatories, with emphasis on technologies and trends pertinent to the IMS hydroacoustic network;</li> <li>➤ Longevity and sustainability of modular ocean observation systems and maintainability challenges in environmentally difficult locations, including operational aspects related to the use of Remotely Operated underwater Vehicles in the maintenance of such systems;</li> <li>➤ Risk mitigation in design, installation and operation of submarine cabled-to-shore systems;</li> <li>➤ Ocean Observatories as "platforms of opportunity" for IMS sensor prototypes and temporary replacement sensors.</li> </ul> </li> <li>2. Data analysis and signal processing methods for CTBT verification purposes: <ul style="list-style-type: none"> <li>➤ IMS data analysis and scientific applications;</li> <li>➤ Signal processing techniques for hydroacoustic event detection and evaluation.</li> </ul> </li> <li>3. 3-D modelling for long-range hydroacoustic signal propagation: <ul style="list-style-type: none"> <li>➤ Recent developments in 3-D long-range (&gt;1000 km horizontal distance) hydroacoustic propagation modelling capabilities for acoustic frequency bands compatible with those of the IMS hydroacoustic network (max frequency 100 Hz);</li> <li>➤ Synthetic environment modelling: demonstrate 3-D long-range hydroacoustic propagation modelling capabilities in synthetic underwater environments relevant to the needs of CTBTO. It is envisioned that this topic will promote the dialogue among participants</li> </ul> </li> </ol>

	<p>for a future benchmark exercise in three-dimensional long-range hydroacoustic propagation modelling;</p> <p>➤ Real data exercise: the organizers of the workshop will provide access to an IMS data set from a long-range detection scenario as ground truth for 3-D modelling validation.</p> <p>As always, CTBT-related contributions on additional relevant topics are also welcome.</p>
<b>Location</b>	Vienna International Centre, Vienna, Austria
<b>Dates</b>	8 to 11 July 2019
<b>Language</b>	English
<b>PTS Point of Contact</b>	<p><u>Administrative POC:</u>  Capacity Building and Training Section (IDC/CBT)  CTBTO Preparatory Commission  Vienna International Centre  P.O.Box 1200, 1400 Vienna, Austria  Tel: +43 1 26030 6147  Fax: +43 1 26030 5973  Email: <a href="mailto:conferences_and_workshops@ctbto.org">conferences_and_workshops@ctbto.org</a></p> <p><u>Technical POC:</u>  Dr. Georgios Haralabus  Project Manager Hydro-Acoustics, IMS/ED  CTBTO Preparatory Commission  Vienna International Centre  P.O.Box 1200, 1400 Vienna, Austria  Tel: +43 1 26030 6302  Email: <a href="mailto:georgios.haralabus@ctbto.org">georgios.haralabus@ctbto.org</a></p> <p>Dr. Mario Zampolli  Hydro-Acoustic Engineer, IMS/ED  CTBTO Preparatory Commission  Vienna International Centre  P.O.Box 1200, 1400 Vienna, Austria  Tel: +43 1 26030 6382  Email: <a href="mailto:mario.zampolli@ctbto.org">mario.zampolli@ctbto.org</a></p> <p>Dr. Peter Nielsen  Hydro-Acoustic Officer, IDC/SA  CTBTO Preparatory Commission  Vienna International Centre  P.O.Box 1200, 1400 Vienna, Austria  Tel: +43 1 26030 6358  Email: <a href="mailto:peter.nielsen@ctbto.org">peter.nielsen@ctbto.org</a></p>
<b>Participants Profile</b>	The workshop is aimed towards all scientists, engineers and other persons involved in hydroacoustics, ocean observatories, acoustic sensor technologies, cabled and autonomous underwater systems and related fields.

	<p>Please be informed that the Provisional Technical Secretariat solicits presentations and posters from participants on the topics of the Workshop.</p>
<b>Application Procedures</b>	<p>Applicants are requested to visit our <u>website <a href="https://ctnw.ctbto.org/">https://ctnw.ctbto.org/</a></u> and apply online latest by 1 May 2019 (<i>registration is free of charge</i>). Financial support may be available to a limited number of participants. Such assistance must be requested at the time of registration (by selecting the relevant box during online registration) and no later than <b>1 April 2019</b>.</p> <p>Financial support will be considered only for those who have submitted an abstract that will be accepted. Participants are strongly encouraged to first seek travel and participation funds from non-CTBTO sources.</p> <p>State Signatories wishing to nominate experts are requested to inform the Provisional Technical Secretariat (See Administrative Point of Contact) through their respective Permanent Mission.</p>
<b>Abstract submission</b>	<p>Applicants are invited to submit an abstract relevant to the objectives of the Workshop via the <u>registration website <a href="https://ctnw.ctbto.org/">https://ctnw.ctbto.org/</a></u> before the registration deadline (1 April 2019). You will be prompted to select whether you prefer it to be a poster or an oral presentation.</p>
<b>Deadline for Funding Application and Abstract Submission</b>	<b>1 April 2019</b>
<b>Deadline for Application and Abstract Submission</b>	<b>1 May 2019</b>
<b>Financial Information</b>	<p><u>Applicable to PTS-funded participants only</u></p> <p>In accordance with the Staff regulations and rules and Administrative Directives, the PTS will provide the following:</p> <ul style="list-style-type: none"> <li>• <u>A Daily Subsistence Allowance (DSA) that is sufficient to cover the related expenses during the workshop program will be paid on the first day of the workshops to the participants;</u></li> <li>• The PTS travel agent will reserve, issue and forward the flight ticket to the participants for the most direct and economic route;</li> <li>• Funded participants are not allowed to purchase their own tickets unless, under exceptional circumstances, be authorized to do so and only if this proves to be most cost efficient for the PTS;</li> <li>• The PTS will book a hotel and cover the costs for the accommodation; and</li> <li>• Health insurance will be provided that covers the duration of the workshop.</li> </ul>

	<i>Requirement: Scanned passport copies.</i>
<b>Other Pertinent Information</b>	<p><b><u>Presentations</u></b> PowerPoint presentations shall not exceed 20 minutes. Posters should be in either A0 or B1 portrait format.</p> <p><b><u>Visas</u></b> Participants should apply for visas, if needed, at the corresponding consular office upon receipt of an acceptance Note Verbale from the Secretariat, in order to ensure timely processing.</p> <p><b><u>Health/Accident Insurance</u></b> It is strongly recommended that prior to departure all participants should acquire health and accident insurance for the duration of the workshop.</p>