

Rolling list of upcoming workshops, training and exercises organized by the PTS

Disclaimer: The information was last updated on 1 June 2022. This list is updated on a regular basis.

For the latest up-to-date information, please consult the web sites for “Calendar of Events” (<http://www.ctbto.org/the-organization/calendar-of-events/>) and “Workshops, Training and Exercises” (<http://www.ctbto.org/the-organization/workshops-training-and-exercises/>)

2022

<i>Dates</i>	<i>Venue</i>	<i>Meeting/Event</i>	<i>Target audience/participants</i>	<i>Background / Objectives</i>	<i>Lead Division(s)</i>
30 May - 3 June 2022	TeST Centre, Seibersdorf, Austria	Expert Meeting and Table-Top Exercise on an OSI in a Mountainous Environment	Total of 35 OSI experts external to the PTS and OSI staff	<p><u>Objectives:</u></p> <ul style="list-style-type: none"> • To discuss and summarize the current PTS knowledge on underground nuclear test explosion (NTE) signatures and observables in mountainous environment (horizontal emplacement) and to identify missing information; • To discuss the application of OSI techniques (Protocol to the CTBT, Part II, paragraph 69) in mountainous environment compared to the scenario with vertical emplacement in relatively flat terrain and to formulate recommendations for further development and testing; • To discuss the application of OSI methodology (search logic, integrated application of techniques) in mountainous environment and recommend potential further development; • To discuss the challenges of logistics and operations support in mountainous environment (except for communications) and to propose recommendations for further development; • To conduct a Table-Top Exercise (TTE) on several simple scenarios of underground NTE in mountainous environments to test the recommendations from the discussions. 	OSI
30 May – 3 June 2022	Online	Training Course on NDC Capacity Building: Access and Analysis of Waveform IMS Data and IDC Products	<ul style="list-style-type: none"> • NDC technical staff/authorized users (preferably Principal User or Regular User) • Having experience in waveform data analysis and/or similar experience related to nuclear test ban verification 	<p><u>Objectives:</u></p> <ul style="list-style-type: none"> • Understanding the roles of National Data Centres in the verification regime; • Building and/or improving the National Data Centre capabilities; • Providing participants with sufficient knowledge for accessing and using IMS data and IDC products; and • Providing practical experience in analyzing IMS data using NDC-in-a-Box Software 	IDC

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30 May – 3 June 2022	Online	Training Course on NDC Capacity Building: Access and Analysis of Waveform IMS Data and IDC Products	<ul style="list-style-type: none"> Seismologists with an advanced degree who operate or have access to regional and local seismic network data and the means of processing that data to provide accurate phase pick information (Having Linux background and some SQL experience is desirable) 		IDC
6 – 10 June 2022	Online	Technical Training for Public Key Infrastructure (PKI) Operators for IMS Radionuclide and Waveform Stations	Nominated PKI Operators for IMS waveform and radionuclide stations. (PKI Operators of IMS stations equipped with equipment different from the equipment specified in the objectives may attend the general part of the training only.)	<u>Objectives:</u> <ul style="list-style-type: none"> To provide PKI Operators with basic knowledge and technical understanding on Data Authentication, Data Surety, PKI concepts and terminology. To learn how to generate key pairs, submit certificate requests and retrieve and install certificates for radionuclide stations using RSSI software and for waveform stations using SSI software and Guralp CMG-DM24, Nanometrics Europa-T and Kinometrics Q330MPlus digitizers. 	IDC
13 – 17 June 2022	VIC, Vienna, Austria	NDC Capacity Building: Waveform Training Course Using SeisComP3	<ul style="list-style-type: none"> Participation is open only to CTBT States Signatories, in particular those participating in the Capacity Building Program Technical staff/authorized users involved in the use of IMS data and IDC products NDC staff as the main target group Experience in waveform data analysis. (Experience with UNIX/Linux operating system and SQL would be beneficial.) 	<u>Objectives:</u> <ul style="list-style-type: none"> To strengthen the capacity of the participation of States Signatories in the verification regime; and To enhance their use of PTS data and products for civil and scientific applications using SeisComP3. 	IDC
13 – 24 June 2022	Online	Training Course on NDC Capacity Building: Advanced Training Course on Radionuclide Particulates Data Analysis	<ul style="list-style-type: none"> NDC technical staff/authorized users (preferably Principal/Regular User); Having participated in the previous Radionuclide Training Course on NDC Capacity Building; Having experience in radionuclide data analysis and/or similar experience related to nuclear test ban verification; and Having passed the e-Learning course 	<u>Objectives:</u> <ul style="list-style-type: none"> Understanding the role of National Data Centres (NDC) in the verification regime; Building and improving the NDC capabilities; and Strengthening the analytical skills of NDCs technical staff on access and analysis of IMS radionuclide data. 	IDC

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14 June 2022	Grand Hotel, Vienna, Austria	Table-Top Exercise (TTE) for the Role of Senior Management during an OSI: Part 1: TTE Conduct (“Game-Play” sessions in the morning and afternoon) Part 2: Summary and reception (an open summary session, statements, and formal reception)	Part 1 - Closed: Mainly for Directors of PTS and Task Leaders related to OSI Part 2 – Open: For States Signatories	<u>Objectives:</u> Part 1: <ul style="list-style-type: none"> To practice decision-making processes and work interfaces between the senior management and key roles in the Organization. To familiarize PTS senior management with some OSI-related policies, challenges and dilemmas; To assist in identifying key areas where PTS senior management are crucial to developing the capability to conduct effective OSIs; and Part 2: <ul style="list-style-type: none"> To demonstrate an Organization-wide commitment to OSI development and generate further support for building OSI capability. 	OSI
27 – 30 June 2022	Poissy, France	Technical Training for Radionuclide Station Operators with SPALAX Equipment	<ul style="list-style-type: none"> Station operators who are directly responsible for daily operation and maintenance of SPALAX noble gas monitoring systems at IMS stations. Station operators involved in the operation and maintenance of the following stations and nominated by the invited States Signatories for participation: CAX16, CAX17, CMX13, DEX33, FRX27, FRX29, FRX30, FRX31, MNX45, PAX50, ARX01, THX65, NEX48 and CNX20. 	<u>Objectives:</u> To provide IMS station operators with the required knowledge and technical understanding of SPALAX noble gas monitoring systems, in order to perform operations and maintenance tasks.	IDC
27 June – 1 July 2022	Uppsala, Sweden	Technical Training for Radionuclide Station Operators with SAUNA Equipment	<ul style="list-style-type: none"> Station operators involved in the operation and maintenance of the following stations and nominated by the invited States Signatories: AUX04, AUX09, BRX11, CLX19, CNX22, GBX66, GBX68, JPX38, MRX43, MXX44, NOX49, NZX46, SEX63 	<u>Objectives:</u> To provide IMS station operators with the required knowledge and technical understanding of SAUNA noble gas monitoring systems, in order to perform operations and maintenance tasks.	IDC

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27 June – 1 July 2022	Uppsala, Sweden	Technical Training for Radionuclide Station Operators with SAUNA Equipment	<p>Station operators who are directly responsible for the operation and maintenance of SAUNA noble gas systems at IMS stations (Station operators from other stations using SAUNA equipment, rather than those listed above, may be considered on a space available basis.)</p> <p>(Participants are encouraged to complete the following e-learning modules: EN-MON04, EN-MON06 and EN-OSI00)</p>		IDC
30 June – 1 July 2022	Online	IDC Seismic-Hydroacoustic-Infrasound (SHI) Reengineering Alpha Tester Group (ATG) Technical Meetings		<p><u>Background:</u></p> <p>The aim of this Alpha Tester Group (ATG) is to enhance the engagement of the NDC community towards the IDC Reengineering project. It allows low-barrier access for State Signatories and NDCs to the current state of the reengineered system. The role of the ATG participants is to validate the results of the system and to provide feedback to the system design and usability.</p> <p><u>Objectives:</u></p> <ul style="list-style-type: none"> • Present the scope of the testing session; • Provide the status of development; • Guide the testers on the discovery of the newly developed features; and • Enable ATG members to run testing scripts and adapt them to different test cases. 	IDC
6 – 7 July 2022	Online	Technical Meeting on Seismic-Hydroacoustic-Infrasound (SHI) Engineering at the IDC	<ul style="list-style-type: none"> • Experts responsible for the software development for waveform monitoring at the NDCs. • Experts involved in software development for environmental monitoring applications, particularly in waveform methods, including signal processing, user interfaces, and database systems. 	<p><u>Background:</u></p> <p>The PTS is currently in Phase 3 of the IDC Re-engineering program, which includes a large-scale effort to improve the SHI processing system. The PTS will modernize the software infrastructure to make the system easier to maintain, and easier to upgrade. Technical meetings are held periodically to provide a forum for experts from States Signatories to review and give feedback on Re-engineering Phase 3 (RP3) progress and plans.</p> <p><u>Objectives:</u></p> <ul style="list-style-type: none"> • To review the current status of work and discuss the project plan, projected milestones and updated deliverables; 	IDC

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6 – 7 July 2022	Online	Technical Meeting on Seismic-Hydroacoustic-Infrasound (SHI) Engineering at the IDC	<ul style="list-style-type: none"> Having in-depth knowledge of at least one aspect of SHI data processing at the IDC. 	<p><u>Objectives</u> (continued)</p> <ul style="list-style-type: none"> To present the results of work done within the PTS on setting up the testing environment for the Geophysical Monitoring System, and the development of integration plans for additional modules; and To discuss technical and scientific issues arising from evaluation, integration and deployment of RP3 deliverables. 	IDC
4 – 8 September 2022	Muscat, Oman	NDC Capacity Building Workshop and Regional Seismic Travel Time (RSTT) in combination with Data Sharing and Integration Training for the Middle East and South Asia (MESA) region	<ul style="list-style-type: none"> NDC analysts, scientific staff from seismological observatories and/or tsunami warning centres, researchers from academic institutions with seismological background and experience or other experts involved in the use of IMS data and products. <p>Having an advanced degree in seismology and/or geophysics, a good command of English and work experience in areas related to tomography, receiver functions, regional seismic studies and earthquake data processing.</p>	<p><u>Objectives: NDC Capacity Building Workshop:</u></p> <ul style="list-style-type: none"> To strengthen participants' knowledge of the CTBT and the work of the Commission; To further build up the national and regional capacities in implementing the Treaty and participating in the verification regime; To promote the civil and scientific application of verification technologies. <p><u>Objectives: RSTT and Data Sharing and Integration Training:</u></p> <ul style="list-style-type: none"> To recognize the importance of obtaining better seismic event locations for future tomographic studies; To understand and learn how the RSTT model can help regional networks achieve more precise event locations; To learn how RSTT can be interfaced with current locators used in daily earthquake location procedures; To demonstrate the importance of Ground-Truth (GT) event locations in defining regional seismic velocity structures and models; To share data and to develop RSTT in MESA through the acquisition of GT seismic locations; To integrate local or regional non-IMS data with the NDC-in-a-Box software for event location; and To stimulate regional cooperation in data exchange through the NDCs and/or regional network operators. 	IDC
5 – 7 September 2022	VIC, Vienna, Austria	International Hydroacoustics Workshop 2022	All scientists, engineers and other persons involved in hydroacoustics, ocean observatories, acoustic sensor technologies, cabled and autonomous underwater systems and related fields.	<p><u>Objectives:</u></p> <p>To support the CTBTO verification regime by creating a forum for scientific knowledge exchange on the following three main topics:</p> <ol style="list-style-type: none"> 1. Technological advancements in marine engineering pertinent to the sustainability and improvement of the hydroacoustic component of the CTBT's IMS; 2. Data analysis and signal processing methods for CTBT verification purposes; and 3. 3-D modelling for long-range hydroacoustic signal propagation. 	IDC

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5 – 8 September 2022	Reykjavik, Iceland	Technical Training for Radionuclide Station Operators using Cinderella Equipment	<ul style="list-style-type: none"> Station operators of IMS radionuclide stations using Cinderella equipment directly concerned with the operation, maintenance and repair of such equipment. Station operators involved in the operation and maintenance of the following stations: RN34 Iceland, RN44 Mexico, RN49 Norway, RN53 Portugal, RN63 Sweden (Participants are encouraged to complete the following e-learning modules: EN-MON04, EN-MON06 and EN-OSI04) 	<u>Objectives:</u> To enhance and develop station operator’s knowledge and skills regarding the operational and maintenance aspects of radionuclide stations using Cinderella system.	IDC
Selected dates from 3 to 21 October 2022	Online	On-Site Inspection Workshop – 25: First Comprehensive Draft List of Equipment for Use during OSIs	Approximately 50 OSI experts external to the PTS	<u>Objectives:</u> <ul style="list-style-type: none"> To conduct in-depth technical discussions on the basis of the First Comprehensive Draft List of Equipment for Use during OSIs, in order to review and further develop the List; and To identify recommendations for the finalization of the List and its ultimate consideration by WGB. 	OSI
7-11 November 2022	TBD, Vienna, Austria				
28 November – 2 December 2022	TBD, Vienna, Austria	7 th Workshop on the Operation and Maintenance (O&M) of the IMS	Station Operators, local operators, NDC staff, contractors and equipment suppliers involved in the operation and maintenance of the IMS.	<u>Objectives:</u> <ul style="list-style-type: none"> Facilitate interaction between Station Operators and the PTS; Highlight major achievements in the Operation and Maintenance of IMS stations while focusing on the necessary steps to be taken to ensure their long-term sustainment; Focus on the way forward to enhance IMS station data availability, quality and its authentication; Update Station Operators on tools available for monitoring and assessing IMS network performance; and Exchange experience and discuss challenges of network operation and maintenance under unforeseen circumstances. 	IDC

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December 2022 (TBC)	TBD, Vienna, Austria	Science Diplomacy Symposium 2022	Diplomats, parliamentarians, youth, civil society, and media representatives	<u>Objectives:</u> <ul style="list-style-type: none"> • To raise public awareness of the CTBT's contribution to international peace and security; • To build and sustain support for the Treaty's universalization and entry into force during its 25th anniversary year; • To stimulate discussions on how to increase access to and use of scientific advice in policy making; • To provide a platform for discussion on how to democratize scientific knowledge; and • To mainstream gender in non-proliferation and disarmament. 	LEGREL