

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

Disclaimer: The information was last updated on 28 June 2018. 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/>)

2018

<i>Dates</i>	<i>Venue</i>	<i>Meeting/Event</i>	<i>Target audience/participants</i>	<i>Background / Objectives</i>	<i>Lead Division(s)</i>
18 – 29 June	VIC, Vienna	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); • 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. <p>The participants should have:</p> <ul style="list-style-type: none"> - Experience in waveform data analysis and/or similar experience related to nuclear test ban verification; and - Linux background and some SQL experience 	<p><u>Objectives:</u></p> <ul style="list-style-type: none"> • To understand the roles of National Data Centres in the verification regime; • To build and/or improve the National Data Centre capabilities; • To provide participants with sufficient knowledge for accessing and using IMS data and IDC products; and • To provide practical experience in analyzing IMS data. 	IDC
2 – 20 July	VIC, Vienna	Training Course on NDC Capacity Building: Access on Analysis of Radionuclide IMS Data and IDC Products	<p>NDC technical staff / authorized users (preferably Principal User or Regular User)</p> <p>The participants should have:</p> <ul style="list-style-type: none"> - Experience in radionuclide data analysis and/or similar experience related to nuclear test ban verification; and - Linux background and some SQL experience 	<p><u>Objectives:</u></p> <ul style="list-style-type: none"> • To understand the roles of National Data Centres in the verification regime; • To build and/or improve the National Data Centre capabilities; • To provide participants with sufficient knowledge for accessing and using IMS data and IDC products; and • To provide practical experience in analyzing IMS radionuclide data. 	IDC

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28 – 31 August	Reykjavik, Iceland	Technical Training for Radionuclide Station Operators Using Cinderella Equipment	Station operators of IMS radionuclide stations using Cinderella equipment directly concerned with the operation, maintenance and repair of such equipment. Invited States Signatories should nominate participant(s) who are station operators involved in the operation and maintenance of the following stations: RN34, RN44, RN49, RN53 and RN63	<u>Objective:</u> <ul style="list-style-type: none"> To enhance and develop station operator's knowledge and skills regarding the operational and maintenance aspects of radionuclide stations using Cinderella system 	IDC
28 August – 2 September	Astana and Semipalatinsk, Kazakhstan	CTBTO International Conference in Kazakhstan	CTBTO Youth Group members, civil society, academia	<u>Objectives</u> <ul style="list-style-type: none"> To stimulate cooperative and collaborative creative thinking about possible political, legal and diplomatic solutions to the challenges facing the Treaty; To enable participants to witness first-hand risks posed by nuclear testing by visiting the Semipalatinsk Nuclear Test Site; To reach out to multiple stakeholders and provide a forum for novel, "out-of-the-box" approaches through the participation of force-multipliers such as members of the CYG and GEM. 	LEGREL
3 – 21 September	VIC, Vienna	Training Course on NDC Capacity Building: Access and Analysis of Radionuclide IMS Data and IDC Products	NDC technical staff / authorized users (preferably Principal User or Regular User) The participants should have: <ul style="list-style-type: none"> Experience in radionuclide data analysis and/or similar experience related to nuclear test ban verification; and Linux background and some SQL experience 	<u>Objectives:</u> <ul style="list-style-type: none"> To understand the roles of National Data Centres in the verification regime; To build and/or improve the National Data Centre capabilities; To provide participants with sufficient knowledge for accessing and using IMS data and IDC products; and To provide practical experience in analyzing IMS radionuclide data. 	IDC
10 – 14 September	Austria	Field test geophysical techniques	A limited number of external experts dealing with geophysical techniques necessary for on-site inspections, and PTS staff	<u>Objectives.</u> <ul style="list-style-type: none"> To assess and validate the functionality and specifications of equipment for inspection techniques listed in para 69 (g) of Part II of the Protocol to the CTBT; To gauge, through field operations and the processing of data, whether the chosen equipment meets specifications as described in the report of OSI Workshop-23 (WS-23) and/or whether the specifications are valid or need to be updated; the test will cover hardware, software and procedures; To review, utilizing knowledge gained during the field text, the concept of operations for these techniques and assess the status and relevance of the tested techniques for the detection of observables. 	OSI

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17 – 21 September	VIC, Vienna	Technical Training for Station Operators of Manual Radionuclide Stations	<p>Invited States Signatories should nominate participant(s) who are station operators involved in the operation, maintenance and repair. Nominated individuals should be directly related to an IMS facility.</p> <p>Target stations: RN01, RN03, RN04, RN05, RN06, RN07, RN08, RN09, RN10, RN13, RN14, RN16, RN17, RN20, RN21, RN22, RN23, RN26, RN39, RN42, RN43, RN45, RN46, RN47, RN48, RN50, RN51, RN52, RN57, RN58, RN64, RN65, RN67, RN68</p>	<p><u>Objectives:</u></p> <ul style="list-style-type: none"> • To provide station operators with the basic knowledge and technical understanding on the operations, maintenance and management of a manual radionuclide stations; and • To provide hands-on training for the various operational and maintenance procedures. 	IDC
17 – 21 September	Ulaanbaatar, Mongolia	East Asia Regional National Data Center Workshop	<p>Invited States should nominate participant(s) who are involved in the use of IMS data and IDC products (waveform and radionuclide).</p> <p>Preference would be given to NDC operators and NDC's customers.</p> <p>The Workshop is dedicated to the following countries: Australia, China, Indonesia, Japan, Republic of Korea, Malaysia, Mongolia, Philippines, Russian Federation, Singapore, Thailand, United States of America, and Vietnam</p>	<p><u>Objectives:</u></p> <ul style="list-style-type: none"> • To strengthen the knowledge of the Comprehensive Nuclear-Test-Ban Treaty (CTBT) and the work of the Preparatory Commission; • To further build-up the capacity of States Signatories of the CTBT to participate in the implementation of the verification regime and assess how participants are making use of IMS data and IDC products; • To encourage National Data Centres (NDCs) within the region to undertake a joint exercise for the analysis of waveform and radionuclide data and compare their results; and • To promote the exchange of experience and expertise among the NDCs. 	IDC

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24 – 27 September	VIC, Vienna	Expert meeting on rapid deployment and field infrastructure	A limited number of external experts dealing with rapid deployment and field infrastructure necessary for on-site inspections, and PTS staff	<p><u>Objectives.</u></p> <ul style="list-style-type: none"> To assess the status of rapid deployment and field infrastructure capabilities and to consider the suitability of related concepts and equipment specifications as documented in the report of WS-23; the <p style="text-align: center;">POSTPONED TO 2019</p> <p>including strategic arm, dangerous goods transportation, modularized equipment storage and transportation solutions, including the second generation of a specialized rapid deployment platform; and</p> <ul style="list-style-type: none"> ✓ as regards field infrastructure, sustainment of an inspection team in the field in various environments as well as integrated infrastructure and logistics support concepts, including associated equipment upgrades and procedures; 	OSI
1 – 5 October	Vienna, Austria	Technical Training for PKI Operators for RN and Waveform Stations	<p>Nominated PKI Operators at IMS stations</p> <p>Invited States Signatories should nominate participants who are PKI operators at the following stations:</p> <p><u>Argentina:</u> RN01 <u>Australia:</u> PS02, IS07, RN04, RN05, RN06, RN07, RN08, RN09, RN10 <u>Brazil:</u> PS07, IS09 <u>Canada:</u> PS09, RN14, RN16, RN17 <u>Germany:</u> PS19, IS26, IS27 <u>Israel:</u> AS048, AS049 <u>Japan:</u> PS22, AS051, AS052, AS053, AS054, AS055, IS30 <u>Malaysia:</u> RN42 <u>New Zealand:</u> RN46, RN47 <u>Niger:</u> PS26 <u>Norway:</u> PS47, PS28, AS072, AS073, IS37 <u>Portugal:</u> IS42 <u>Russian Federation:</u> PS32, PS33, PS34, PS36, PS37, AS082, IS43, IS44, IS45, IS46, RN56, RN57, RN58, RN59, RN60, RN61 <u>Spain:</u> PS40 <u>Sweden:</u> AS101</p>	<p><u>Objective:</u></p> <ul style="list-style-type: none"> To provide PKI Operators with the basic knowledge and technical understanding on Data Authentication, Public Key Infrastructure (PKI) concepts and terminology and Data Surety, how to generate key pairs and submit certificate requests, and how to retrieve and install certificates for radionuclide and waveform station systems, such as SSI, Guralp, Nanometrics. 	IDC

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1 – 5 October	Vienna, Austria	Technical Training for PKI Operators for RN and Waveform Stations (continued)	<p><u>Switzerland</u>: AS102 <u>Tanzania</u>: RN64 <u>Tunisia</u>: PS42, IS48 <u>United Kingdom</u>: RN67, RN68 <u>Ukraine</u>: PS45</p> <p>PKI Operators of IMS stations not listed above may also apply. Their participation will be subject to availability of places in the training course.</p>		
7 – 20 October	Denel Overberg Test Range, Arniston, South Africa	Third training cycle advanced course	OSI surrogate inspectors and PTS instructors.	<p><u>Objective</u>:</p> <ul style="list-style-type: none"> • To deliver training on the following topics, using a variety of training methodologies with a focus on practical learning: <ul style="list-style-type: none"> ✓ <u>ITF/FTF</u>: to increase understanding and demonstrate competence in implementing an information-led search logic during the launch and inspection phase of an OSI using the ITF/FTF concept; ✓ <u>(Planning) Data Flow Management</u>: to gain an understanding of the new GIMO and demonstrate competence in the integration of GIMO in the conduct of the daily inspection activities and information management during an OSI; ✓ <u>Soft Skills Competencies</u>: to identify important field operations Soft Skill competencies and apply that learned information during the conduct of the course; ✓ <u>Prepare for Technology/OPS-focused Activities</u>: to identify and describe the different OSI-specific technologies and OPS support functions and explain the general capabilities and limitations of each technology/support function 	OSI
8 – 10 October	VIC, Vienna	Expert Meeting on Advance in Waveform Processing and Waveform Special Studies	Experts from NDCs and research establishments that are involved in testing, applying and developing waveform methods that may be suitable for inclusion into IDC waveform automatic processing pipeline, or may be applicable to Special Studies and Expert Technical Analysis	<p><u>Objectives</u>:</p> <ul style="list-style-type: none"> • To explore advances to waveform processing that may improve the IDC waveform pipeline processing, including tools and methodologies for testing and validation; • To discuss waveform Special Studies and Expert Technical Analysis – methods, use of data and content of UEB. 	IDC

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11 – 12 October	VIC, Vienna	Special Studies / Expert Technical Analysis – RN/ATM Methods	Experts from NDCs and research establishments that are involved in applying and developing radionuclide and ATM methods that may be suitable for Special Studies and Expert Technical Analysis (ETA)	<p><u>Objectives:</u></p> <ul style="list-style-type: none"> To review methods that may be suited for Special Studies and ETA; To discuss possible content of the URR and SRMR; To explore the potential use of various non-IMS data for SRMR; To advance common understanding of methods to be developed for the SSREB, URR, SRMR and NDC responsibilities 	IDC
15 – 18 October (additional day, on 19 October, for trainees from RN13 and RN33)	Olen, Belgium	Technical Training for Radionuclide Station Operators with Canberra Equipment	<p>Invited States Signatories should nominate participants who are station operators involved in operation and maintenance of the following stations: RN03, RN13, RN24, RN26, RN33, RN39 and RN52</p> <p>Applications from other stations using Canberra detector equipment may be considered on a space available basis.</p> <p>Nominated individuals should be directly related to the IMS facility.</p>	<p><u>Objective:</u></p> <ul style="list-style-type: none"> To provide hands-on training and practical lessons to Station Operators on the operation, maintenance and repair of the Canberra Gamma Detector System manufactured by Canberra Industries Inc. 	IDC
15 – 19 October	Vienna, Austria	Technical Training for Waveform Stations Operators of Joint IMS and International Deployment of Accelerometers (IDA) Stations	<p>Preference will be given to station operators from the below listed stations: <u>Chile:</u> AS018 <u>Costa Rica:</u> AS025 <u>Fiji:</u> AS031 <u>Iceland:</u> AS038 <u>Indonesia:</u> AS044 <u>Kyrgyzstan:</u> AS066 <u>Peru:</u> AS078 <u>South Africa:</u> AS099 <u>Sri Lanka:</u> AS100 <u>Uganda:</u> AS103 <u>United States of America:</u> AS110 <u>Russian Federation:</u> AS084, AS085, AS087</p> <p>Invited States Signatories should nominate participant(s) who are station operators involved in the operation and maintenance.</p> <p>Nominated individuals should be directly related to the relevant IMS facility.</p>	<p><u>Objectives:</u></p> <ul style="list-style-type: none"> To provide station operators with the required knowledge and technical understanding of the operations, maintenance and management of an IMS Station jointly with International Deployment of Accelerometers (IDA) using waveform technology; and To provide hands-on training for the various operational and maintenance procedures. 	IDC

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22 – 26 October	Denel Overberg Test Range, Arniston, South Africa	Third training cycle ground and airborne visual observation techniques	Selected OSI surrogate inspectors and PTS instructors.	<u>Objective:</u> <ul style="list-style-type: none"> To familiarize trainees with the geologic, anthropogenic and radionuclide observables associated with an underground nuclear explosion. 	OSI
29 – 31 October	VIC, Vienna	Build-up Exercise Task Force	A limited number of external experts who are members of the Build-up Exercise Task Force, and PTS staff	<u>Objective:</u> <ul style="list-style-type: none"> To further develop the exercise scenarios for the build-up exercises contained in the OSI Exercise Plan 2016-2020. 	OSI
29 October – 2 November	VIC, Vienna	NDC Capacity Building: NDC Waveform Training Course using SeisComp3	<p>The training is only open to the CTBT States Signatories, in particular to those participating in the Capacity Building Programme.</p> <p>Technical staff/authorized users involved or to be involved in the use of IMS data and IDC products.</p> <p>NDC staff is the main target group.</p> <p>The participants should have experience in waveform data analysis. Experience with UNIX/Linux operating system and SQL would also be beneficial.</p>	<u>Objectives:</u> <ul style="list-style-type: none"> To strengthen the capacity of the States Signatories' participation in the verification regime; and To enhance their use of PTS data and products for civil and scientific applications using SeisComp3. 	IDC
5 – 9 November	Vienna, Austria	Infrasound Technology Workshop 2018	The workshop is aimed towards all scientists, engineers, Station Operators, staff from National Data Centres and other persons involved in infrasound technology and related fields	<u>Objective:</u> <ul style="list-style-type: none"> To create an international forum for presenting and discussing recent advancements in infrasound research and operational capabilities of global and regional networks 	IDC
12 – 16 November	National Oceanography Centre, Southampton, United Kingdom	OSI Workshop 24	Diplomats, scientists, international organizations representatives, legal experts and relevant PTS staff.	<u>Objective:</u> <ul style="list-style-type: none"> To focus on the scientific and legal issues related to the conduct of an OSI in different climates or geophysical environments; events other than underground nuclear explosions and in areas beyond the jurisdiction or control of any state; and the practical and organizational challenges of mounting an OSI on the high seas. 	OSI

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12 – 16 November	Vienna, Austria	6 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"> • To facilitate interaction between Station Operators and also with the PTS through participation in focused group discussions; • To 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; • To focus on the way forward to enhance IMS station data availability, quality and its authentication; and • To update Station Operators on tools available for monitoring and assessing IMS network performance. 	IDC
10 – 12 December	VIC, Vienna	Expert meeting on OSI drilling.	Limited number of external experts with in-depth knowledge of CTBT provisions that guide or affect OSI drilling operations and/or with experience in planning, preparing and conducting on- shore drilling operations	<u>Objectives:</u> <ul style="list-style-type: none"> • To provide a comprehensive overview of planning, preparing and conducting drilling operations in the context of OSI, taking into consideration all aspects of drilling and subsequent sampling, including underground nuclear test explosion phenomenology, related radionuclide distribution and migration, challenges associated with specific emplacement configurations, sample handling, as well as health, safety and environmental protection; and • to review and assess relevant existing information and to provide subject matter expertise to draft elements of this overview, including requirements for a concept of operations, equipment specifications and procedures. 	OSI