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

Disclaimer: The information was last updated on 16 November 2017. 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/)

2017

Dates	*Venue*	*Meeting/Event*	*Target audience/participants*	*Descriptions (Objectives, Deliverables, etc.)*	*Lead Division(s)*
1 May 2017 – 30 November 2018	Virtual Attendance	Beta Testers Group for the Web-Grape-IBS Application	Participants must be representatives of NDCs. Experience in Atmospheric Transport Modeling (ATM), radionuclide data processing or in using Web-Grape would be an asset.	Since 2015, the PTS has been developing an on-line version of the Web-Grape software for visualization of ATM processing results. The "Web-Grape Internet Based Service" (Web-Grape-IBS) is integrated with the CTBTO Single-Sign-On and allows users to post, process and visualize Source Receptor Sensitivity (SRS) data generated and stored at the IDC without the need to download large SRS files or to install commercial software locally. A first version of Web-Grape-IBS that allows users to calculate and visualize Field-of-Regard (FOR) products against the backdrop of a basemap in 2D and 3D mode has been developed and has reached beta-version status. Objectives: • The role of the Beta Testers Group (BTS) is to represent the NDC user community and help to test the newly developed Web-Grape-IBS application. Activities and responsibilities: • Via teleconferencing, attend demos of new modules delivered throughout the lifetime of the project and provide feedback; • Liaise with other technical users in their NDC and share their feedback with the developers; • Execute test plans provided by the Web-Grape-IBS project team and report on their findings; and • Share their experience with the Web-Grape community, for instance at the NDC workshops.	IDC

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6 November – 1 December	VIC, Vienna	NDC Capacity Building: NDC Waveform Analyst Training Course	Participants profile includes: • NDC technical staff/authorized users (preferably Principal User or Regular User); • Experience in waveform data analysis and/or similar experience related to nuclear test-ban verification; • 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; • Linux background and some SQL-experience. To be considered for the Course, participants should successfully complete E-Learning Training Course on NDC Capacity Building: Access and Application of IMD Data and IDC Products.	Objectives: • To enhance understanding of the roles of National Data Centres (NDCs) in the verification regime; • To build and/or improve the NDC capabilities; • To provide participants with sufficient knowledge for accessing and using IMS data and IDC products; and • Provide practical experience in analyzing IMS data. Agenda: The programme includes the following: ➢ Methods to Access IMS data and IDC products; ➢ NDC support/performance reports; ➢ IMS data, acquisition, processing and storage; standard software package; ➢ Necessary NDC's resources to process IMS data and analyse IDC products; Practical sessions on data and products access, and use of standard software packages.	IDC
13 – 17 November	Windhoek, Namibia	NDC Capacity Building Workshop and Regional Seismic Travel Time (RSTT) in Combination with Data Sharing and Integration Training	Applicants should be involved in the use of IMS data and products. Target participants are, in particular NDC analysts, scientific staff from seismological observatories, and/or tsunami warning centres or researchers from academic institutions with seismological background and experience. The workshop aims at having a broad regional representation from Africa.	Objectives: • 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, as well as to promote the civil and scientific application of verification technologies, in particular to promote the importance of Ground-Truth (GT) event locations in defining regional seismic velocity structures and models; • To share data and to develop the Regional Seismic Travel Time Model (RSTT) in Africa through the acquisition of GT seismic locations.	IDC

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13 – 17 November	Windhoek, Namibia	NDC Capacity Building Workshop and Regional Seismic Travel Time (RSTT) in Combination with Data Sharing and Integration Training (continued)	Participants should have an advance degree in seismology and/or geophysics, a good command of the English language and have worked in areas related to tomography, receiver functions, regional seismic studies and earthquake data processing. Participation in previous RSTT related activities is an asset.	Additional objectives of the Data Sharing and Integration Training: • To understand and learn how RSTT 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 recognize the importance of obtaining better regional locations for future tomographic studies; • To stimulate regional cooperation in data exchange through the NDCs and/or regional network operators. <u>Agenda for NDC Capacity Building</u> ➢ Presentations of the latest developments, regarding IMS and IDC, capacity building and training; ➢ National experiences in establishing and operating an NDC and/or experience with CTBT; ➢ Establishment, operation and assistance of NDCs; ➢ Introduction to the RSTT project and data sharing activities; ➢ Civil and scientific applications of IMS data and IDC products with emphasis on special interest to NDCs in Africa. <u>Agenda for Training</u> ➢ Theoretical aspects behind the RSTT model; ➢ Computational efficiency of the RSTT model; ➢ Tessellation grid and the importance of crustal parameters data input (compilation of published references); ➢ Availability of GT and the need to test the model; ➢ How regional phase data exchange can help better understanding the regional crustal structure through tomographic studies; ➢ Hands-on exercises on RSTT data sets: i) measurement of regional arrival times; ii) location of events using regional data; iii) combining regional and teleseismic data; iv) testing location accuracy; v) evaluation of residuals; vi) comparison with ground truth and other reference events; vii) establishing new reference events.	IDC
20 – 24 November	VIC, Vienna	Technical Training for Station Operators from Auxiliary Seismic Stations (non-parent network stations)	Priority will be given to operators of specific stations targeted for this training. The countries hosting these stations receive this announcement directly through official channels.	<u>Objective</u> • To provide station operators with the basic knowledge and technical understanding of the operations, maintenance and management of an IMS station using waveform technology and, more specifically, to provide hands-on training for the various operational and maintenance procedures.	IDC

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20 – 24 November	VIC, Vienna	Technical Training for Station Operators from Auxiliary Seismic Stations (non-parent network stations) (continued)	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 the IMS facility.	Agenda ➢ Operation, maintenance and sustainment of the IMS seismic auxiliary station network - Nanometrics, Guralp and SSI equipment ➢ Station operator support - Troubleshooting - Communication with PTS ➢ Practice: practical exercises - Hands-on training on pairing digitizer software with sensors - Troubleshooting, with station specific scenarios - Restoring station to normal operational conditions - Reporting	IDC
27 November – 1 December	Middlesex, United Kingdom	International Noble Gas Experiment Workshop 2017	The workshop is aimed towards all scientists, engineers and other persons involved in Noble Gas measurements related to the verification of the CTBT.	Objective • To present and evaluate the most recent advances in noble gas monitoring technology. Agenda The themes of the workshop are: ➢ Noble gas measurement technologies at IMS stations and for OSI; ➢ The analysis and interpretation of noble gas data; ➢ Noble gas background mechanisms and measurements to characterize typical xenon and argon-37 detections in the atmosphere and the subsoil; ➢ QA/QC and laboratories supporting the noble gas measurements; ➢ New technologies related to gas processing, nuclear decay measurements and analysis; ➢ Noble gases in On-Site Inspections; ➢ Atmospheric Transport Modeling; ➢ CTBTO noble gas capabilities roadmap.	IDC
4 – 8 December	VIC, Vienna	NDC Capacity Building: NDC Pilot Infrasound Data Analysis Training	The target participants are NDC technical staff/authorized users (preferably Principal User or Regular User) and geophysicists (or related field) with an advanced degree, who operate or have access to regional and local seismic-acoustic network data and the means of processing and analyzing that data.	Objectives • To build and/or improve the NDC capabilities; • To provide participants with sufficient knowledge for accessing and using IMS data and IDC products; • To provide participants with sufficient knowledge for understanding infrasound sources and atmospheric propagation; and • To provide practical experience in processing and analyzing IMS infrasound data with NDC-in-a-Box tools.	IDC

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4 – 8 December	VIC, Vienna	NDC Capacity Building: NDC Pilot Infrasound Data Analysis Training (continued)	The participants should have experience in waveform data analysis and/or similar experience related to nuclear test-ban verification; Linux background and some SQL experience are also required.	Agenda ➢ Methods to access IMS data and IDC products; ➢ Introduction on infrasound technology, infrasound atmospheric propagation and seismic-acoustic sources; ➢ IMS data, acquisition, processing and storage: standard software packages; ➢ NDC's resources to process IMS data, analyse IMS data and understand IDC products; ➢ Practical sessions on infrasound data processing and analysis using software packages from NDC-in-a-Box.	IDC

2018

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16 – 18 January	VIC, Vienna	Expert Meeting on Build Up Exercises	Relevant external experts and PTS staff	Objective The aim of the Expert Meeting is to commence the planning for the next cycle of buildup exercises in accordance with the approved OSI Exercise Plan 2017 – 2020.	OSI
21 May – 1 June (to be confirmed)	VIC, Vienna	CTBT Science Diplomacy Symposium	Diplomats, parliamentarians, youth, civil society and media representatives	Objectives • To raise awareness and understanding on CTBT and its verification regime; • To stimulate creative thinking about facing challenges; • To encourage cooperative and collaborative academic research and teaching; and • To serve as a catalyst for major upgrade to e-learning package.	LEGREL