

## **Session: T2.2, T2.3, T2.5, T3.3, T3.4, T3.6**

*Monday, 26 June 2017 18:00 (3 hours)*

### Topic 2.2 Characterization of Events Through On-Site Inspection

T2.2-P1 A Standardized and Accurate Sampling Device for On-Site Inspection and Verification Purposes after a Nuclear Incident

T2.2-P2 Analytical Procedures Developed by the IAEA's ALMERA Network Applicable to the Characterization of Legacy Nuclear Test Sites

T2.2-P3 Delayed Telltale Signature of an Underground Nuclear Explosion

T2.2-P4 (Y) Determining Mechanisms of Ground and Surface Waters at "Balapan" Site of Semipalatinsk Test Site

T2.2-P5 Geophysical Imaging of an Uncollapsed Nuclear Explosive Test

T2.2-P6 Measurement of Radioargon and Radioxenon in Soil Gas

T2.2-P7 Measurements of Ar-37 Backgrounds at the Nevada National Security Site

T2.2-P8 On Site Carbon Dioxide and Stable Isotopologues Measurement to Support OSI Subsurface Gas Sampling

T2.2-P9 PNNL-2: On-Site Inspection Capabilities – Examination of Laboratory Detector Response

T2.2-P10 Revisiting the On-site Inspection (OSI) Concept of Operations in Light of Integrated Field Exercise 2014 (IFE14) and Inspection Team Functionality

T2.2-P11 Semipalatinsk Test Site: Underground Nuclear Explosions Signatures in the Velocity Field on P- And S- Waves (for the OSI Purposes)

T2.2-P12 (Y) Simulation of Shallow Subsurface Noble Gas Transport Using Subsurface Transport over Multiple Phases (STOMP)

T2.2-P13 (Y) Use of Tritium as an Indicator of Underground Nuclear Explosion Venues at the STS

T2.2-P14 Variations of Cs-137 Background of Global Fallout at OSI Site as the Signature to Search for Radiation Anomaly or the Artefact

T2.2-P15 The Importance of Visual Observation to Guide the Application of Other OSI Techniques

### Topic 2.3 Seismoacoustic Sources in Theory and Practice

T2.3-P1 A New Experimental Field Study of the Effects of Explosive Detonation Products on Seismic Radiation

T2.3-P2 (Y) Analysis of Stress and Fault Orientation in Double Subduction Zone of Maluku Sea Region by Using Iterative Joint Inversion Method

T2.3-P3 Combined Experiment and Numerical Modelling to Understand Response Near Chemical Explosions

T2.3-P4 Compilation of Infrasound Ground-Truth Database Using Seismic Data

T2.3-P5 (Y) December 7th Earthquake

T2.3-P6 Dynamics of Reservoir Induced Seismicity in Aswan, Egypt

T2.3-P7 (Y) Earthquakes Mechanisms in Egypt

T2.3-P8 Estimation of Full Moment Tensors, Including Uncertainties, For Earthquakes, Volcanic Events and Nuclear Explosions

T2.3-P9 Estimation of Source Parameters and Their Uncertainties of Explosion Sources Using Equalization Technique: Application to the SPE Chemical Explosions at NNSS

T2.3-P10 Events Detected by the Indian Ocean Network of Hydroacoustic IMS Stations

T2.3-P11 Induced Seismicity on the Territory of Kazakhstan

T2.3-P12 Precursor Study by a Physical Model of the Ahar-Varzaghan Doublet Earthquakes (6.5, 6.3) 2012 at the Northwest of Iran

T2.3-P13 Seismic and Hydroacoustic Observations from Underwater Explosions off the East Coast of Florida

T2.3-P14 Seismoacoustic Effects of the Khubsugul Earthquake of 5 December 2014, Mw = 4.9, Mongolia

T2.3-P15 Time-Domain Source Function (TDSF) for Nuclear and Chemical Explosions: Analysis Around Nevada National Security Site (NNSS)

T2.3-P16 Seismic Source of Moderate Earthquakes in Colombia

### Topic 2.5 Historical Data from Nuclear Test Monitoring

T2.5-P1 Kr-85 Monitoring in North-Western Region of Russian Federation

T2.5-P2 Analysis of the Wave Pattern of Nuclear Explosions Records from Lop Nor Test Site by Central Asia Stations

T2.5-P3 (Y) Measurement of Background Gamma Radiation in the Northern Marshall Islands

T2.5-P4 Nuclear Explosions in the Eastern Siberia (the Former USSR) in 1976-1987

T2.5-P5 (Y) Nuclear Test Explosions Recorded by Seismic Stations of the Slovak Academy of Sciences

T2.5-P6 Observation of Infrasound Signals from the 1920s

T2.5-P7 Possibility Assessment of Determination of the Place of the Underground Nuclear Tests by Means of Artificial Radionuclides Presence in Groundwater with STS Example

T2.5-P8 Potentially Dangerous Technogenic Objects at Semipalatinsk Test Site

T2.5-P9 Some features of wave forms of seismic events from the areas of nuclear Asia Test Sites according to the data of AS60 seismic station (AAK, Ala-Archa, Kyrgyzstan)

T2.5-P10 The Nuclear Tests in Ukraine (the Ukrainian SSR) in the Period of 1972-1979 Years

T2.5-P11 (Y) The Precise Location of the Fifth Nuclear Test in North Korea

Topic 3.3 Remote Sensing, Satellite Imagery and Data Acquisition Platforms

T3.3-P1 Aerial Gamma Spectroscopy for On-Site Inspections in Winter Environments

T3.3-P2 (Y) Airborne Gamma-Spectrometry Mapping

T3.3-P3 (Y) Anomaly Detection in Remote Optical Imagery

T3.3-P4 Detection of OSI-Relevant Features Using Time-Series Radar Imagery

T3.3-P5 Ionospheric Waves Associated of Earthquakes and Nuclear Explosions Using Total Electron Content (TEC)

T3.3-P6 Repurposing the Global Network of Radiation Portal Monitors

T3.3-P7 State Provided GIS Data Sources for Treaty Verification

T3.3-P8 Subsurface, Surface and Remote Observations of Legacy Nuclear Explosion Sites

T3.3-P9 UAV-Based Mobile Gamma Spectrometry

Topic 3.4 Geophysical Methods Applied to On-Site Inspection

T3.4-P1 Analysis of Heat Transfer in a Closed Cavity Ventilated Inside

T3.4-P2 Application of Radial and 3D Electrical Resistivity Electrode Profile Configuration for Improved Sub-surface Imaging to Detect Anomalies/Artefacts related to Nuclear Testing and Explosion

T3.4-P3 Application of the On-site Inspection Geophysical Techniques for the Detection and Identification of Subsurface Features

T3.4-P4 Dynamic Characteristics of Soil Using Geophysical Techniques in Atbara Area, Sudan

T3.4-P5 (Y) Experimental S-wave Data Acquisition and Processing Above a Tunnel

T3.4-P6 (Y) Investigation of a Remediated Sink Hole with S-Wave Seismic and Geoelectric Methods

T3.4-P7 Near Surface Geophysical Observations on the Great Cavern, Felsőpetény Testing Area, near Budapest, Hungary

T3.4-P8 (Y) Resonance Seismometry: A Toolbox for OSI

T3.4-P9 SAMS Software Functionality Enhancement

T3.4-P10 Seismological Investigations of the National Data Centre Preparedness Exercise 2015 (NPE2015)

T3.4-P11 The Guide for Tunnels and Voids Detection Using High Resolution Microgravity

T3.4-P12 Use of Data from Seismic Measurements in the Kylylahti Region, Finland, in 2016 for Further Development of Geophysical Seismic Techniques for CTBT On-Site Inspections

Topic 3.6 Fusion of Data from Different Monitoring Technologies

T3.6-P1 CTBTO Generation of Synthetic Radionuclide Spectra to Support the NDC Preparedness Exercise NPE15

T3.6-P2 Experience of Use Seismoacoustic Complex of MCSM for Monitoring of Natural and Man-Made Events

T3.6-P3 Infrasound Detection of Earthquakes in Chile

T3.6-P4 (Y) Integration Geophysical Network OVSICORI and Seismic Stations of IMS Network CTBTO

T3.6-P5 (Y) The Application of Local Seismic and Infrasound Networks as National Technical Mean