ID: Type: **Poster**

Participation of NDC Austria at the NDC Preparedness Exercise 2012

The NDC Preparedness Exercise 2012 (NPE 2012) was a fictitious radionuclide triggered test conducted by the National Data Centers (NDCs) of CTBT States Signatories. During the NDC Preparedness Exercise 2012, a fictitious radionuclide scenario originating from a seismic event was calculated and distributed by the German NDC. It was assumed that a selected seismic event was the epicentre of an underground nuclear fission explosion. The scenario included detections of the Iodine isotopes 131I and 133I and the Radioxenon Isotopes 133Xe, 133MXe, 131MXe and 135Xe. By means of atmospheric transport modelling (ATM), concentrations of Radioxenon isotopes which would result from this hypothetical explosion were calculated by the German NDC and interpolated to the IMS station locations. Participating NDCs received information about the concentration of the isotopes at the station locations without knowing the underlying seismic event. The main goal of the analysis was to identify the event selected by NDC Germany to calculate the radionuclide scenario, and to exclude other events. In the presentation, the analysis methodology as well as the final results and conclusions will be shown and discussed in detail.

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Track Classification: Theme 3: Advances in Sensors, Networks and Processing