Geophysical Research Abstracts
Vol. 20, EGU2018-18620-1, 2018
EGU General Assembly 2018

Analysis of IMS radionuclide station and laboratory measurements with regard to possible association with the announced nuclear test of the DPRK on 3 September 2017

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After the announced nuclear test of Democratic People's Republic of Korea (DPRK) on 3 September 2017, radionuclide measurements at IMS stations were reviewed for possible associations with a prompt or late release from that event. Supported by atmospheric transport simulations (see related presentation in the same session) three particulate samples from the down-wind IMS station RUP58 at Ussuriysk, Russian Federation, were sent to selected IMS radionuclide laboratories to confirm if there is any CTBT relevant radionuclide detected. Later on, a few elevated noble gas concentrations were recorded in mid-October 2017 at the IMS noble gas system RUX58, which were also analysed by the IMS laboratories. This contribution describes analysis of the IMS station and laboratory results along with ATM simulations and isotopic ratio calculations.