ID: Type: **Poster**

T1.2-P14. SPATIO-TEMPORAL VARIATIONS OF SHORT-PERIOD S WAVE ATTENUATION FIELD STRUCTURE IN THE REGION OF NEVADA NUCLEAR TEST SITE

We have been studying characteristics of short-period shear wave attenuation field in the region of Nevada test site (NTS). We were analyzing recordings of underground nuclear explosions (UNEs) and earthquakes, obtained in 1975-2012 by stations ANMO, TUC and TPNV at epicentral distances up to 1000 km. A total number of 240 recordings were processed. Methods, based on an analysis of amplitude ratios of Sn and Pn, Lg and Pg waves at regional distances, and also S coda envelopes for local events were used. It was shown, that essential temporal variations of the attenuation field structure in the earth's crust and uppermost mantle of the NTS region were observed during a period considered. The strongest variations took place in the area of Pahute Mesa, where about 2/3 of the largest UNEs were conducted. The data obtained allows us to suppose, that the temporal variations of the attenuation field are connected with active deep fluid migration. We compare common characteristics of the attenuation field in the regions of three large nuclear test sites (NTS, Semipalatinsk and Lop Nor).

Primary author: SOKOLOVA, Inna (Institute of Geophysical Researches)

Presenter: SOKOLOVA, Inna (Institute of Geophysical Researches)

Track Classification: 1. The Earth as a complex system