GEOLOGICAL AND MACROSEISMIC MANIFESTATION OF THE OCTOBER 16, 2011 EARTHQUAKE IN SKOVORODINO DISTRICT OF AMUR REGION

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Abstract. Seismotectonic investigation of the M_S = 6.1 Skovorodino earthquake epicentral zone and macroseismic study of earthquake-hit settlements were fulfilled. The source was situated in northwest of the Amur region of the Russian Federation. The seismic breaks on the surface of the earth had a secondary origin due to vibration and gravitation processes. These failures were studied in details and mapped. The carried out investigations in the settlements and questioning local inhabitants allowed us to estimate the macroseismic effect in the MSK-64 scale gradations. The described seismotectonic and macroseismic evidences are the primary actual data collected immediately after the earthquake. They give information about shaking intensity both in distant and near zones of the seismic source. The map of isoseismal intensities of highest macroseismic effect (intensity of 7–8) was compiled.

Keywords: epicentral investigations, macroseismic effect, secondary seismic ruptures, earthquake source.