

Geological research of the Tuva earthquakes of 2011–2012

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Abstract. The data are presented on the geological effects of the Tuva earthquakes of 27.12.2011 ($M_S = 6.7$) and 26.02.2012 ($M_S = 6.8$), which became the strongest in the history of seismological observations in Tuva. The earthquakes occurred in the area of Kaahemskogo deep fault, one of the largest seismic generate structures of the Altai-Sayan seismically active regions. The earthquake traces clearly divided into two groups: the secondary, resulted from seismic shaking, and the primary, directly reflected extending of the earthquake source to the surface in the form of surface ruptures. A distinctive feature of both of the earthquake seismic faults is their small length in comparison to the event magnitudes. The data collected on the distribution of the secondary effects of the earthquakes allow outlining the areas of the intensity 8 and 9 representing the cumulative effect of the two events.

Keywords: earthquake, source, seismic fault, fault zone, secondary effects of earthquakes.