

## Global earthquakes in the 2020 second half according to the GS RAS

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**Abstract** The data on the seismicity of the Earth in the second half of 2020 at the level of strong earthquakes with magnitudes  $m_b \geq 6.0$  are given according to the data of the Alert Service of the Geophysical Survey RAS. The review also includes information on 54 tangible earthquakes in Russia and five earthquakes in adjacent territories that were felt in the settlements of the Russian Federation. Two of 67 strong earthquakes of the Earth with  $m_b \geq 6.0$  for the period under consideration were registered in the territory of Russia. For 15 strong earthquakes, the Alert Service published Information Messages within one or two days after their occurrence, for 14 earthquakes the information on focal mechanisms is provided. The strongest earthquake of the Earth with  $M_S = 7.9$  occurred on July, 22 in the region of the Alaska Peninsula. The maximum human casualties and material damage during the study period were the result of the catastrophic intraplate earthquake with  $M_S = 6.8$ , which occurred on October, 30 in the Aegean Sea, near the Samos Island. As a result of the earthquake, 117 people died, 1054 were injured. The strongest earthquake on the territory of Russia was the deep-focus one with  $m_b = 6.4$ , which took place on November, 30 in the Tatar Strait, separating Sakhalin Island from continental Eurasia. The crustal Bystrinsk earthquake on September, 21 with  $M_S = 5.2$ , which occurred in the area of Lake Baikal, was felt with a maximum intensity  $I = 6-7$  on the territory of Russia. Comparative analysis of the rate of seismic energy released in the Globe in 2010-2020 showed that its value in the second half of 2020, as well as for 2019-2020 on average, is one of the lowest for the eleven-year period and indicates a seismic calm, which should be replaced by a period of intensification of global seismic and deformation processes.

**Keywords** Earthquake Early Alert Service, seismic stations, strong earthquakes, magnitude, seismic energy, focal mechanism, macroseismic effect.

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