

Strong earthquakes in the Globe and Russia in the first half of 2020 according to the GS RAS

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Abstract The data on the seismicity of the Earth in the first half 2020 at the level of strong earthquakes with $m_b \geq 6$ are presented according to the Earthquake Early Alert Service (EEAS) of the Geophysical Survey RAS. The review also includes information on weaker but destructive earthquakes in the world and tangible earthquakes in Russia. In total, 64 earthquakes with $m_b \geq 6$ were registered in the first half of the year, including four events in Russia. For 18 strong earthquakes, the EEAS published Informational messages within one or two days after their occurrence, for 16 of them the information on focal mechanisms was given. A comparative analysis of the seismic energy released in the territory of the Globe showed that in the first half of 2020 its amount corresponds to the average values for the last three years. The strongest earthquakes with $MS=7.7$ occurred on January 28 in the Caribbean Sea and on June 23 in Mexico, accompanied by fore- and aftershocks. The largest human casualties and material damage during the study period were caused by the catastrophic earthquake with $MS=6.6$ that occurred on January 24 in Turkey. As a result of the earthquake, 41 people died, 1607 were injured. On the territory of Russia the strongest earthquake with $MS=7.5$ occurred on March 25 east of the Kuril Islands and was felt in Severo-Kurilsk with an intensity $I_f=5-6$. A total of 47 tangible earthquakes with $m_b=3.6-7.2$ were recorded in Russia.

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

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