Global earthquakes in the 2023 first half according to the GS RAS

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Received July 31, 2023

Abstract Information is provided on the seismicity of the Earth at the level of m_b≥6.0 in the 2023 first half, as well as on 97 earthquakes felt on the territory of the Russian Federation according to the to the Alert Service of the Geophysical Survey RAS. For the 14 most severe earthquakes, information messages were publishing within one or two days after their implementation, the parameters of the mechanisms of foci were calculated and given. During the period under review, the strongest earthquakes on the globe with MS=8.0 (Mw=7.8) and MS=7.8 (Mw=7.7) occurred on February 6 in Kahramanmaras Province, Turkey. As a result of these earthquakes, 500 people were killed in Turkey, about 115 thousand were injured, about 10 thousand people were killed in Syria, and more than 10 thousand were injured. On the territory of Russia, the strongest earthquake was on April 3 with m_b=6.4 (Mw=6.5) on the east coast of Kamchatka. It was also felt with the greatest intensity of concussions (5-6 points) in the settlements of Russia. The seismic energy released on the globe for the 2023 first half (1.93⋅10^{17} J) increased relative to similar values for the 2022 first and second half, coming close to the average half-year value for the period 2010-2022 (2.31⋅10^{17} J).

Keywords Earthquake Early Alert Service, seismic stations, strong earthquakes, magnitude, seismic energy, focal mechanism, intensity of concussions.


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