

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

© 2023 Yu.A. Vinogradov, M.I. Ryzhikova, S.G. Poygina, N.V. Petrova, M.V. Kolomiets

GS RAS, Obninsk, Russia

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Abstract Information is provided on the seismicity of the Earth at the level of $m_b \geq 6.0$ in the 2023 first half, as well as on 97 earthquakes felt on the territory of the Russian Federation according 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 $MS=8.0$ ($M_w=7.8$) and $MS=7.8$ ($M_w=7.7$) 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 $m_b=6.4$ ($M_w=6.5$) 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 ($1.93 \cdot 10^{17}$ 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 ($2.31 \cdot 10^{17}$ J).

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

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Information about authors

Vinogradov Yuri Anatolyevich, Dr., Director of the Geophysical Survey of the Russian Academy of Sciences (GS RAS), Obninsk, Russia. E-mail: yvin@gsras.ru

Ryzhikova Mariya Igorevna, Deputy Head of Department of the GS RAS, Obninsk, Russia. E-mail: masha@gsras.ru

Poygina Svetlana Germanovna, Researcher of the GS RAS, Obninsk, Russia. ORCID: 0000-0002-0796-6049. E-mail: sveta@gsras.ru

Petrova Nataliya Vladimirovna, PhD, Leading Researcher of the GS RAS, Obninsk, Russia. ORCID: 0000-0002-2052-1327. E-mail: npetrova@gsras.ru

Kolomiets Marina Viktorovna, Head of Department of the GS RAS, Obninsk, Russia. E-mail: kolmar@gsras.ru