

Global earthquakes in the 2022 first half according to the GS RAS

© 2022 Yu.A. Vinogradov, M.I. Ryzhikova, N.V. Petrova, S.G. Poygina,
M.V. Kolomiets

GS RAS, Obninsk, Russia

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Abstract An analysis of the seismicity of the Earth in the 2022 first half at the level of strong earthquakes with magnitudes $m_b \geq 6.0$ according to the Alert Service of the Geophysical Survey RAS are given. In addition, added information about 59 earthquakes in Russia and adjacent territories, felt in the settlements of the Russian Federation. For 15 strong earthquakes within one or two days after their occurrence, Information messages were publishing; information about the focal mechanisms was calculated and presented. During the period under review, the strongest earthquake on the globe with $MS=7.0$ ($M_w=7.3$) occurred on March 16 on the east coast of Honshu Island, Japan. The greatest loss of life and material damage during the study period was caused by a catastrophic earthquake with $MS=6.4$ ($M_w=6.1$), which occurred on June 21 on the border of Afghanistan and Pakistan. Because of the earthquake, 1,500 people were killing and more than 2,000 people were injured. On the territory of Russia, the strongest earthquake was on April 24 with $MS=5.8$ ($M_w=6.2$) east of the Kuril Islands. With the greatest intensity of concussions (6 points) in the settlements of Russia, an earthquake was felt on June 8 with $m_b=5.4$ ($MS=5.2$), which occurred in the water area of Lake Baikal. There was a sharp decrease in the seismic energy released in the first half of 2022 on the globe after a surge in the previous six months.

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

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Information about authors

Vinogradov Yuri Anatolyevich, PhD, 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

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

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

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