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

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Received January 31, 2024

Abstract Information is provided on the seismicity of the Earth at the level of mb 6.0 in the 2023 second half, as well as on 65 earthquakes felt on the territory of the Russian Federation according to the to the Alert Service of the Geophysical Survey RAS. For the 20 most severe earthquakes, Information messages were publishing within one or two days after their implementation, the parameters of the focal mechanisms calculated and given. During the period under review, the strongest earthquake on the globe with MS=7.6 (Mw=7.6) occurred on December 2 on the east coast of Mindanao Island, Philippines. The greatest human casualties and material damage were caused by a catastrophic earthquake with MS=6.9 (Mw=6.9) that occurred on September 8 in Morocco. Because of the earthquake, 2,946 people were killed and 5,530 people were injured. On the territory of Russia, the strongest earthquake was on December 28 with MS=6.5 (Mw=6.5) in the Pacific Ocean, it is more important than the Kuril Islands. The earthquake of November 27 with m_b=4.7, which occurred on the territory of the Novosibirsk region, was felt with the highest intensity of concussions (6 points) in populated areas of Russia. The seismic energy released on the globe for the 2023 second half ($\Sigma E_{0.5}=7.47\cdot10^{16}$ J) decreased compared to that in the 2023 first half and remained below the average semi-annual value for the period 2010-2023 ($\overline{\Sigma E_{0.5}}=2.24\cdot10^{17}$ J).

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

For citation Vinogradov, Yu.A., Ryzhikova, M.I., Petrova, N.V., Poygina, S.G., & Kolomiets, M.V. (2024). [Global earthquakes in the 2023 second half according to the GS RAS]. *Rossiiskii seismologicheskii zhurnal* [Russian Journal of Seismology], *6*(1), 7-28. (In Russ.). DOI: https://doi.org/10.35540/2686-7907.2024.1.01. EDN: DQQNZV

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