



On specific magnitude and geographical criterion for tsunami alarm announcement in the Sea of Japan

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Abstract

One of the natural hazards in the Far East of Russia is the tsunami. Possibility of a tsunami as a result of an earthquake is estimated by magnitude and geographical criterion now. The earthquake is considered tsunam-danger if his epicenter gets to a tsunami-risk zone, and intensity exceeds the set threshold value of magnitude. For earthquakes in the Sea of Japan threshold value of magnitude makes 7.0, regardless of the provision of the epicentre in the water area of the sea. The solution of such task as specification of criteria for the announcement of alarm of a tsunami in the Sea of Japan is extremely urgent. For the purpose of specification of magnitude and geographical criterion of tsunami risk of earthquakes in the Sea of Japan two series of computing experiments have been conducted. In the first series of computing experiments authors have executed modeling of the conditional centers of the tsunami placed in seismically active zones of the Sea of Japan, in the second series – the centers of real historical tsunami. On the basis of results of computing experiments it was offered to allocate with authors in the Sea of Japan the area with the increased threshold criterion for the announcement of alarm of a tsunami in the Far East of Russia. Practical realization of this development would allow to reduce number of false alarms of a tsunami in the Far East of Russia.

Keywords

Earthquake, Tsunami, Tsunami risk, Magnitude, Hypocenter,
Alarm of a tsunami, Sea of Japan, Far East

References



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