



On the creation of a local tsunami early warning service.

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Tsunami warning services should announce a tsunami alarm in a good time only for those points for which tsunami to be of an actual threat. The alarm should be accompanied by an information about expected tsunami: arrival time of the first wave, number of waves, their heights and estimated time of alarm cancelling. The offered method of tsunami early warning uses data on ocean level in a point remote from a coast and minimal seismological information about earthquake epicenter coordinates. The method can work by real-time mode. Numerical experiments for region of southern Kurils of Russia were fulfilled. Characteristic tsunami travel times are about 1 hour in this area. It is supposed that the sea level gauge is installed in a remote point to the east of Shikotan Is. Numerical experiments were fulfilled as if events happened in a reality. Coordinates of earthquake epicenter are available 6 min. after the main shock. The first quarter of tsunami wave was recorded by sea level gauge 20 min. after. The preliminary tsunami forecast for Yuzhno-Kurilsk (Kunashir Is.) was made 30 min. before tsunami attack with information about expected arrival time and height of the first wave. This time is enough for evacuation of the population to safe places. Based on this information the decision on the announcing tsunami alarm in Yuzhno-Kurilsk is made. Then the forecast is being updated, the expected duration of tsunami alarm is being estimated. In numerical experiments tsunami reached Yuzhno-Kurilsk 50 min. after main shock in the correspondence with calculated arrival time. The tsunami waveform and forecasted waveform rather well have coincided. The coefficient of correlation between them was in range 0.8 - 0.9. Numerical experiments show that the offered method of short-term tsunami forecast can be applied by acting

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