Simulation of the short-term tsunami forecast

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The method of the short-term tsunami forecast based on a known reciprocity principle is applied for simulation of recent events. 2006, 2007, 2009 Simushir tsunamis, 2009 Samoa tsunami and 2009 Santa Cruz tsunami were simulated.

The only seismological information about earthquakes epicenter coordinates was used. The transfer function permitting to compute the waveform of expected tsunami in any specific point is formed during an event, at once after receiving an information about earthquake epicenter coordinates. At once after passing the first half-wave of a tsunami through a point of registration and receiving information about it the forecasted tsunami waveform at specific point can be obtained.

Tsunami waveforms at remote points are computed on data of DART system station near to epicenter. The result of computation demonstrates a good concurrence expected tsunami waveform with the recorded tsunami waveform during 60 minutes. The coefficient of correlation is estimated as 0.9.