Modeling of influence from remote tsunami at the coast of Sakhalin and Kuriles islands.

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The Far East coast of Russia (Kuriles islands, Sakhalin, Kamchatka) is the area where the dangerous natural phenomena as tsunami is located. A lot of works are established for decreasing of tsunami's influence. Tsunami mapping and mitigation strategy are given for some regions. The centers of Tsunami Warning System are opened, enough plenty of records of a tsunami are collected. The properties of local tsunami are studied well.

At the same time, the catastrophic event of the Indonesian tsunami, which had happened in December, 2004, when the sufficient waves have reached the coasts of Africa and South America, it is necessary to note, that the coats, which was far from the epicenter of earthquakes can be effected by catastrophic influence.

Moreover, it is practically unique case, when using Tsunami Warning System can reduce the number of human victims to zero.

Development of the computer technologies, numerical methods for the solution of systems of the nonlinear differential equations makes computer modeling real and hypothetical tsunamis is the basic method of studying features of distribution of waves in water areas and their influence at coast.

Numerical modeling of distribution of historical tsunami from the seismic sources in the Pacific Ocean was observed.

The events with an epicenter, remote from Far East coast of Russia were considered. The estimation of the remote tsunami waves propagation was developed. Impact force of tsunamis was estimated. The features of passage of tsunami through Kuril Straits were considered. The spectral analysis of records in settlements of Sakhalin and Kuriles is lead.

NAMI-DANCE program was used for tsunami propagation numerical modeling. It is used finite element numerical schemes for Shallow Water Equations and Nonlinear-Dispersive Equations, with use Nested Grid.