

Project of effective tsunami warning system based on remote bottom pressure stations

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Abstract. Timely and effective tsunami warning is a problem of great economic importance for the developing coastal areas of the Russian Far East. The existing Russian warning system is based on seismic data and threshold earthquake magnitude criterion (the energetic class of earthquake), which is different for different geographical regions. A significant number of false alarms is associated with the low efficiency of this threshold criterion. Despite recent considerable progress in the seismic method, a real improvement of the Tsunami Warning Service may be achieved only by hydrophysical forecast methods. The catastrophic Shikotan Tsunami of 4 October 1994 demonstrated the low efficiency of the existing system and the urgent need to elaborate a new system based on remote precise bottom pressure stations. Recent NOAA and JMA advances in open ocean tsunami measurements provide guidance to create such a system for the Pacific coast of Russia. The Russian Foundation for Basic Research supports the creation of this system.

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