



## Manifestation of the August 2, 2007 Nevelsk tsunami

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Tsunami activity of Tatar Strait is connected with seismic active zone stretched in Japan Sea along the Western Japan coast and entering by its Northern part in the Tatar Strait in the North. Moneron tsunami in September 6, 1971, being maximal until the 2007, created by earthquake with magnitude 7.5 gave rather big wave run-ups (1.5 m on Moneron Island coast and 2 m near Gornozavodsk and Shebunino settlements). It was not expected that Nevelsk earthquake with smaller magnitude 6.1 created dangerous tsunami. Everywhere the initial wave on the Tatar strait coast started several minutes after the main shock. Maximal run ups were registered in the Northern part of Nevelsk district. Tsunami run-up height near Yasnomorsk was 1.8 m. Tsunami penetrated in the river and its height was about 1 m on the distance about 300 m from the river mouth. Tsunami traces as a fresh sea grass were found on the height 2.3 m on the Northern coast of small bay near the Zavety Ilyicha settlement. On the southern coast from the river mouth the tsunami run-up was 3.2 m. The wave penetrated in the river up to the level of railway bridge (height 2.7 m). The wave brought large tree on the distance of 250m (2.5 m above sea level). Tsunami height near the Kholmsk was rather small. The tide gauge in the Kholmsk port detected small tsunami about 0.3 m. It is interesting that tsunami height to the North of Kholmsk increased and its height near settlement Yablochnoye was 1.5 m. Tsunami height to the South of Nevelsk was small. Sailors in the port "Mys Kuznetsova" saw tsunami of 0.7 m height. Tsunami with height about 0.3 m was detected by tide gauges on Hokkaido coast. This unexpected large tsunami probably connected with the extremely great vertical deformations of the Earth crust (for such magnitude) accompanied the earthquake. The work

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