



Unusual Earthquake July 31, 2010 in Lake Ladoga

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We introduce the unique unusual sequence of 32 nanoearthquakes that are registered instrumentally in the Ladoga Lake region for the first time. The source zone was located at a distance of not more 2 km from the seismic station Valaam. The strongest earthquake was July 31, 2010 at 18:44 GMT c magnitude ML-0.8 which was felt in the southwestern part of the Island . It was found that the earthquake was caused by hydrodynamic disturbance in the upper layers of the Ladoga graben crust due to seishe exposure which in turn came under the influence of a powerful hurricane swept on Lake Ladoga in the night of 29 to 30 July 2010. The earthquakes introduced above have confirmed the possible seismic activity of south-eastern end of the Ladoga-Bothnian seismic zone and the tectonic nature of the Ladoga historical events of the beginning of 20 th century described earlier. From 2006 many other unusual but non manmade events were registered by seismic station Valaam.