



## **Assessment of Tsunami Inundation map for Bulgarian coasts of in the Black Sea**

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Tsunami hazard in the Black Sea is considered low to moderate but not negligible. At present, New European Tsunami Catalogue counts 29 historical tsunami events in the Black Sea, 22 of which are considered as reliable. Four of them affected Bulgarian coast including a strong earthquakes event 544/545 of offshore Varna. Here we discuss a forecast of possible tsunami wave heights at Bulgarian coasts of the Black Sea. In order to do that, prognostic numerical simulations of 55 tsunami events with use non-linear Boussinesq equation model in the Black Sea has been performed. All tsunami sources are uniformly distributed in the Black Sea basin. The results of prognostic numerical simulations are compared with the results of numerical modelling of two instrumentally measured historical events (1939 and 1966) and with the data of instrumental measurements. On this basis a preliminary forecast of tsunami inundation map along the Bulgarian coast of the Black Sea is given developed. Certainly a the tsunami the risk in the Black Sea is not too high but considering development of the European coastal infrastructure and utilization it becomes important. is An The gas terminal on at the Bulgarian coast of «South Stream» connecting to the Russian coast is an example of critical structures for which the tsunami assessment is also performed. necessary to consider it, here it is possible to refer construction of the gas terminal on the Bulgarian coast «South Stream» connecting to the Russian coast.

Acknowledgements: Support by EU 603839 ASTARTE Project, RFBR 14-05-00092, Russian Federation President Award 1935.2012.5