



Assessment of Tsunami Hazard for Western coast of 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. Some of them can be affected Romanian coast including a strong neares earthquakes event 544/545 of offshore Varna (Bulgaria). In this study we discuss a forecast of possible tsunami wave heights at Romanian coasts of the Black Sea. In the analysis, the prognostic numerical simulations are performed by using 55 tsunami events. In the simulations non-linear Boussinesq equation model in the Black Sea is used. All tsunami sources are selected as 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 tsunami events (1939 and 1966). On this basis a preliminary forecast of tsunami inundation map along the Romanian coast of the Black Sea is developed. As the summary the level of tsunami risk is discussed by considering recent development of the coastal utilization in the Black sea. On this basis a preliminary forecast of tsunami inundation map along the Western 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.

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