



Numerical modeling of the March 28, 2005 tsunami in the Indian ocean

A. Kurkin (1), A. Zaitsev (1), A. Yalciner (2), **N. Polukhin** (1,3)

(1) Department of Applied Mathematics, State Technical University, Nizhny Novgorod, Russia, (2) Civil Engineering Department, Ocean Engineering Research Center, Middle East Technical University, Ankara, Turkey, (3) Laboratory of Hydrophysics and Nonlinear Acoustics, Institute of Applied Physics of Russian Academy of Sciences, Nizhny Novgorod, Russia (ponv@inbox.ru)

The modeling of the second recent tsunami of March 28, 2005 near the Sumatra Island is presented. The tsunami source was located between two small islands to the west from Sumatra: Nias and Simeulue. The wave height during this event reached 3 m on the south edge of Simeulue Island. The initial tsunami waveform was obtained from the Okada model, and the tsunami propagation from the source was modeled with the use of program complex "Tsunami", modified and adapted in the Department of Applied Mathematics of Nizhny Novgorod State Technical University. The detailed comparison of the computed and observed tide gauge records was carried out. It shows good correlation of numerical results and observational data.