

Assessment the Tsunamis Impact with Tectonic Sources in the Southern Mainland of the Haitian Republic: Using Two Numerical Models

Authors : Delva Richard, Zahibo Narcisse, Yalciner Ahmet

Abstract : The Republic of Haiti is one of the poor countries of the world, therefore the authorities must make choices to provide timely solutions to the many difficulties that this Caribbean country is experiencing. There is a very acute lack of scientific research to study natural phenomena in depth. A working group meeting was established under the aegis of the World Bank, UNESCO and the authorities, to study the level of exposure of the Hispaniola. The devastating earthquake of August 2021 killed about 2100 and caused massive material damage; and the 14 12 January 2010 killed more than 250,000 people and caused massive material damage, the evidence of which is still 11 years later. In this paper we want to contribute to the assessment of the risk of tsunami on the southern peninsula of the Republic of Haiti. For the realization of this work we have the bathymetric and topographic data of very good qualities from the private measurement campaigns that we have combined with GEBCO for the inundation grids. We use two numerical models MOST and NAMI DANCE for the calculation of the parameters required in any tsunami risk assessment.

Keywords : modélisation numérique, ondes longues océaniques, bathymétrie, évaluation risque, tsunamis

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