



SIMULATION OF TSUNAMI AT EAST COAST OF PENINSULAR MALAYSIA DUE TO THE EARTHQUAKES AT MANILA TRENCH USING TUNA-M2 MODEL

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ABSTRACT

This study assessed the impact of tsunami waves simulated to propagate towards South China Sea before reaching the coastlines of east coast Peninsular Malaysia with earthquake source from Manila Trench. The latest set of fault parameters developed in year 2014 incorporating the worst-case scenario of $M_w=9.3$ were used to generate tsunami from Manila Trench using TUNA-M2. With the study domain set at a rectangle bounded by $100^\circ E$ to $125^\circ E$ longitude, $0^\circ N$ to $25^\circ N$ latitude, grid dimensions of 1851×1851 (km) and grid size of 1500 meters, findings from this study showed that the state of Kelantan will experience the highest wave height at 1.96 m followed by Terengganu (1.55m), Pahang (0.65m) and Johor (0.56m). Since Pahang and Johor are expected to experience low wave height, it can be concluded that coast