

# Tsunami Induced Currents In Vicinity Of Palar Submarine Canyon Off Southeast Coast Of India – A Numerical Model Study

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Most of the tsunami numerical model studies are focused on the inundation and runup of tsunamis onto the coast. However, very few studies are seen on the tsunami induced currents. Such information on tsunami induced currents would help in better planning and optimal design of offshore structures. Earlier studies were carried out by the authors (Jaya Kumar & Baldock, 2009) on the tsunami amplification due to submarine canyons in this study region. In this study, numerical modeling of tsunami induced currents along a submarine canyon, known as Palar Canyon (Varadachari et al. 1968) that exists off southeast coast of India, was carried out using a three dimensional hydrodynamic model (MIKE3). The input data for driving the 3D model is taken from tsunami propagation model (Titov and Gonzalez 1997). The 2004 Boxing Day tsunami was considered. This paper presents the numerical modeling studies carried out to estimate the tsunami induced currents in the vicinity of a submarine canyon.

Keywords: tsunami; submarine canyon; MOST;

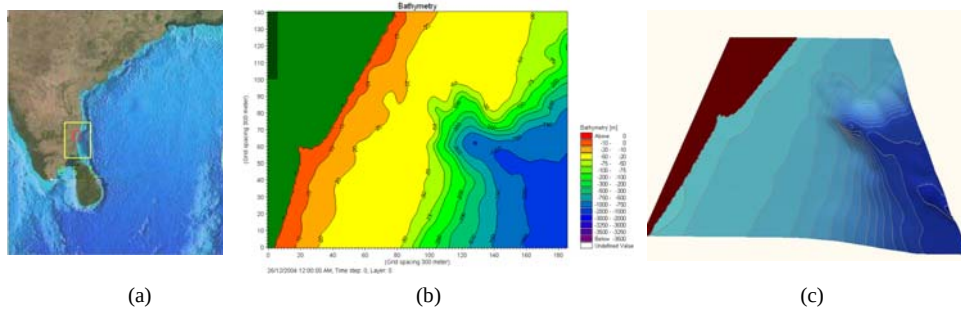


Figure 1. (a) Study region (b) bathymetry and (c) perspective view of the bathymetry showing submarine canyon

## References

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