Turkish coastlines have been exposed to devastating tsunamis in the past. The first historical report of coastal inundation by tsunamis in the region refers to the eruption of the Thera volcano in the eastern Mediterranean, now believed around 1620BC.

Today, Turkey has densely populated shorelines with substantial touristic activities and critical infrastructures. Thus, the establishment of a tsunami propagation database in the Aegean Sea and the Eastern Mediterranean can help to build a capacity to develop for both long- and short-term tsunami-forecasting capabilities in the region.

Potential tsunamigenic sources can be modeled using pre-computed tsunami scenario database that can be used for long-term studies including inundation mapping of the tsunami prone coastal zones, probabilistic studies; or short-term, i.e., real-time forecasting.

**Unit Tsunami Sources for the Aegean Sea**

The United States National Oceanic and Atmospheric Administration (NOAA) Center for Tsunami Research (NCTR) at Pacific Marine Environmental Laboratory, Seattle, Washington, developed tsunami propagation database covering the world oceans. NCTR's tsunami propagation database is based on propagation results from 100 x 50 km² fault planes with a slip value of 1 m referred to as tsunami unit sources.

The linearity of tsunami propagation in the open sea allows scaling or combination of the pre-computed propagation results from tsunami unit sources to generate a desired seismic scenario.

We follow NCTR approach to develop propagation database for the Aegean Sea and the Eastern Mediterranean. We consider the Hellenic Arc subduction zone and other seismic faults and historical tsunami events compiled from the tsunami catalogues. We placed 100 x 50 km² sources covering subduction zones, while adopted 50 x 25 km² sources for local faults (Figure 1).

**References**

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**Acknowledgements**

This research is funded through the Scientific and Technological Research Council of Turkey, project no. 109Y367. Also, it is partially funded by project ASTARTE - Assessment, StRategy And Risk Reduction for Tsunamis in Europe - 7th FP ENV.2013.6.4-3, Grant 603839.

**Corresponding Author:** Naeimeh Sharghivand, naeimeh.sharghivand@metu.edu.tr