



United Nations  
Educational, Scientific and  
Cultural Organization

Intergovernmental  
Oceanographic  
Commission

**NEAMTIC is part of the activities to develop the Tsunami Early Warning and Mitigation System for the NEAM region (NEAMTWS).**

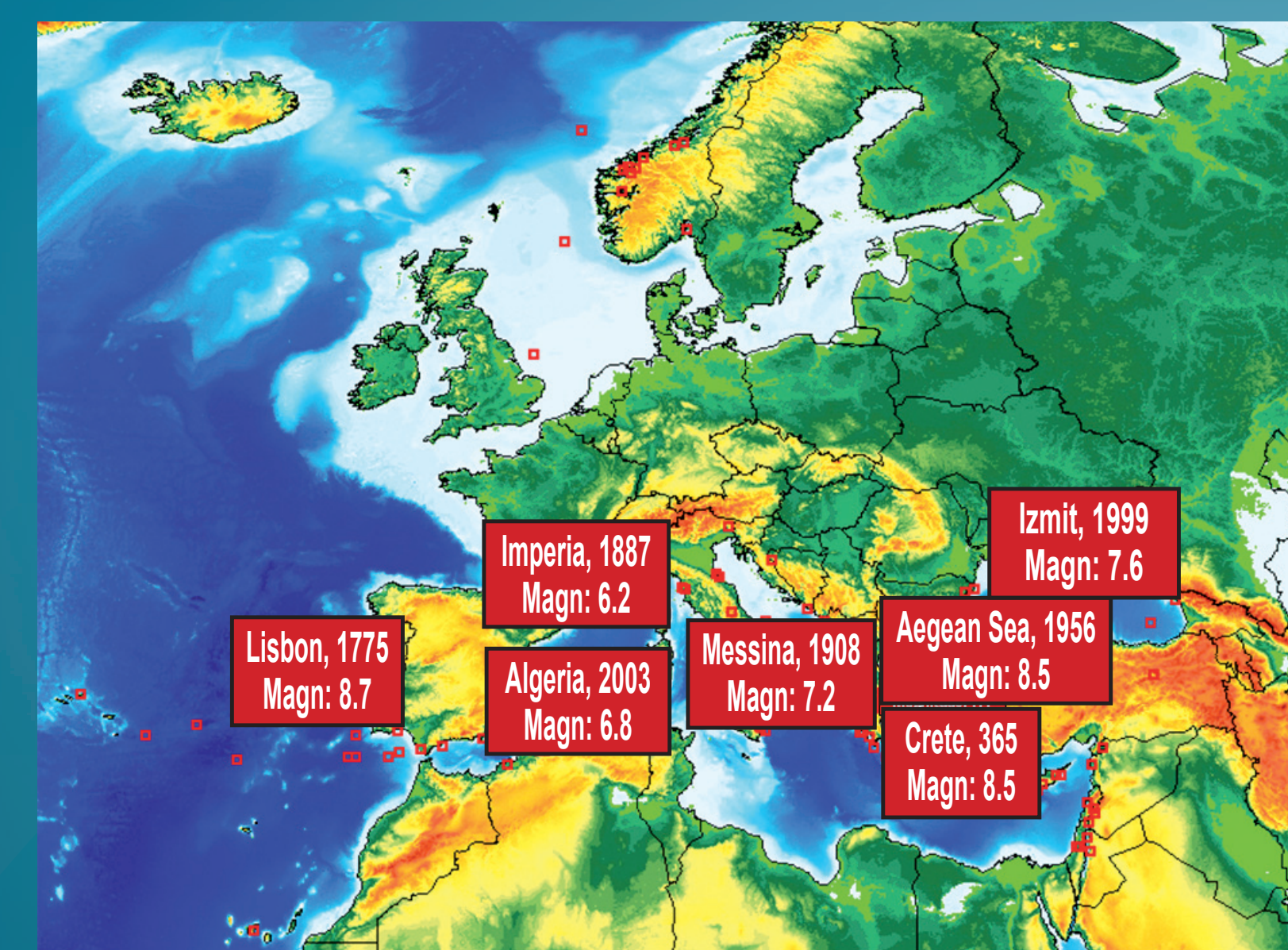
The objectives of NEAMTIC are:

- ▶ **Providing information** to civil protection authorities on warning systems for tsunamis and other sea-level related hazards, and on the activities of IOC and European Union (EU) in the field of tsunami preparedness.
- ▶ **Making citizens, especially youth, aware of risks** of floods from the sea in coastal areas, such as tsunamis, storm surges and strong swells and acquiring knowledge on and practicing safe behaviour.
- ▶ **Identifying, sharing and disseminating good practices** in plans, methods and procedures to strengthen preparedness for sea level related hazards.
- ▶ **Fostering linkages between the EU and IOC** on intergovernmental and transnational actions to develop NEAMTWS.

# NORTH-EASTERN ATLANTIC AND MEDITERRANEAN Tsunami Information Center

# NEAMTIC

## TSUNAMI RISK IN THE NEAM REGION



Although less frequent than in the Pacific and Indian Ocean tsunamis can hit the Mediterranean and North East Atlantic coastal areas causing extensive loss of lives and properties. Major tsunamis with ten-thousands of casualties and severe damage to coastal cities happened for example in 365 (Crete), in 1775 (Lisbon), in 1908 (Messina), in 1956 (Aegean

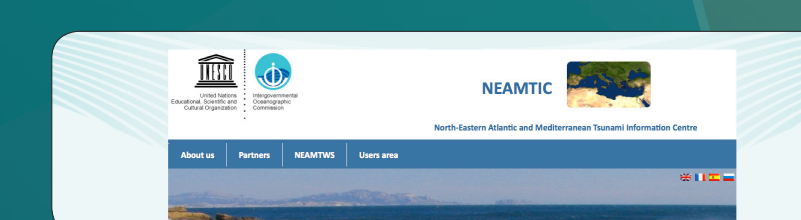
Sea). Even recently a tsunami has been generated in the Izmit Bay, and affected the coastline extensively following the 1999 Izmit earthquake. At some locality the inundation distance ranged up to 35 m. Furthermore, tsunamis have been generated in 2002 in Stromboli and in 2003 in Algeria though fortunately not very damaging. The Mediterranean area represents the collision between the European and the African plates, and comprises a number of geodynamic regions affected by different seismic activity extended from West to East. Furthermore volcanic and geomorphological processes could be at the origin of tsunamis in the area.

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- Commissariat à l'énergie atomique et aux énergies alternatives (France)
- Presidenza del Consiglio dei Ministri – Dipartimento della Protezione Civile (Italy)
- National Observatory of Athens (Greece)
- Fundação da Faculdade de Ciências da Universidade de Lisboa (Portugal)

**Furthermore NEAMTIC is supported by:**

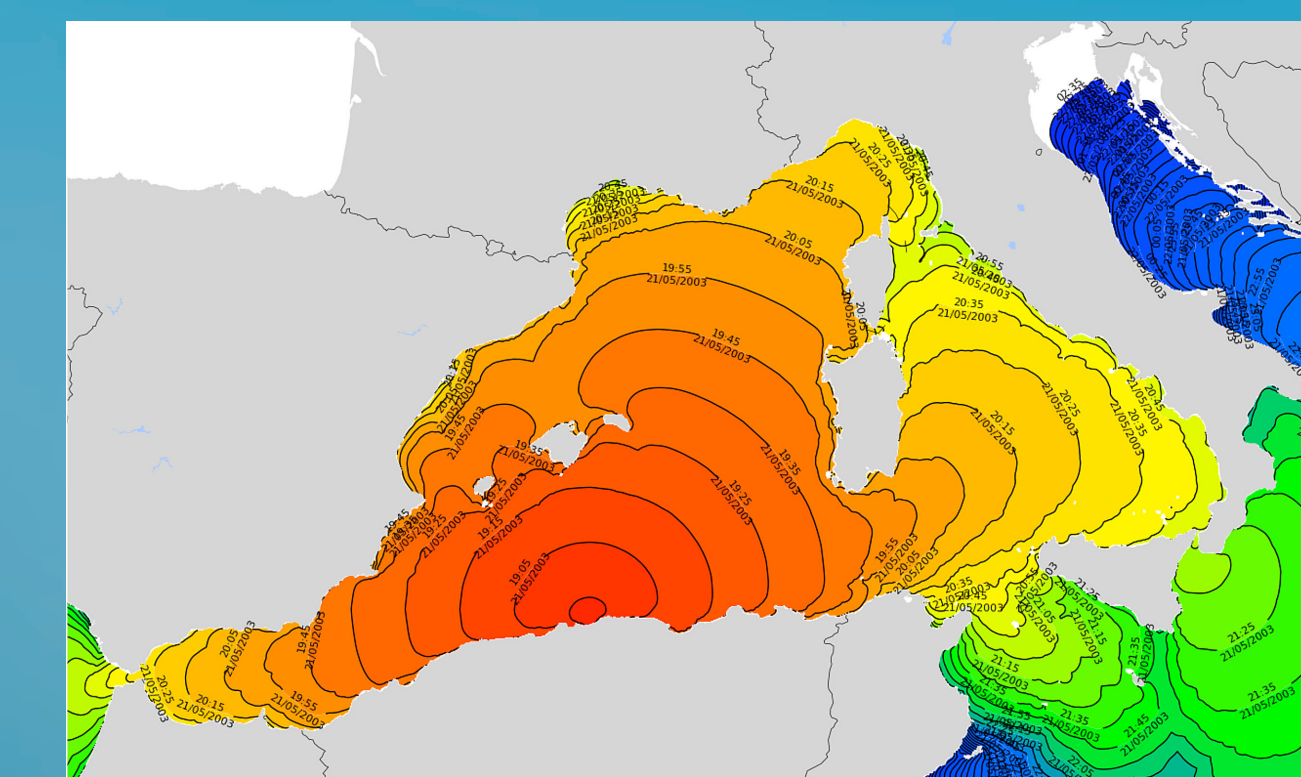
- Islamic Educational, Scientific, and Cultural Organisation (ISESCO)
- Kandilli Observatory and Earthquake Research Institute (Turkey)



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AWARENESS MATERIALS AT

**NEAMTIC.IOC-TSUNAMI.ORG**

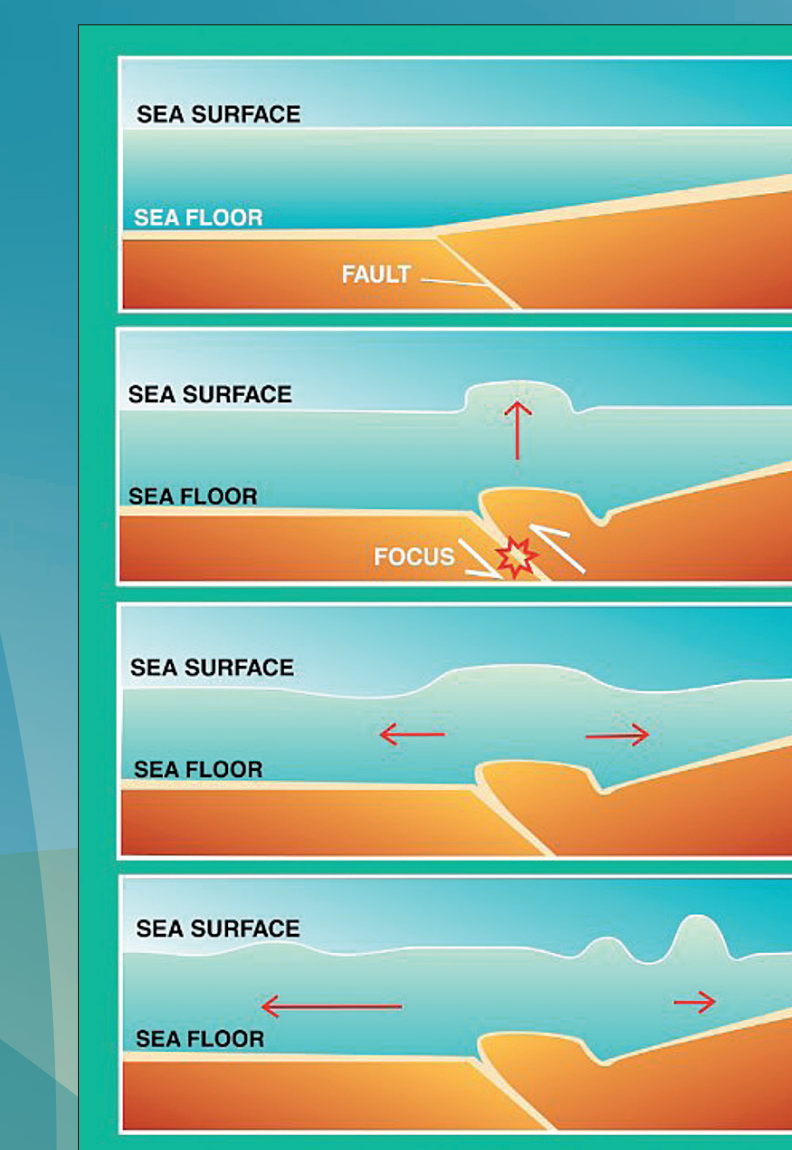
## TSUNAMI PROPAGATION TIME



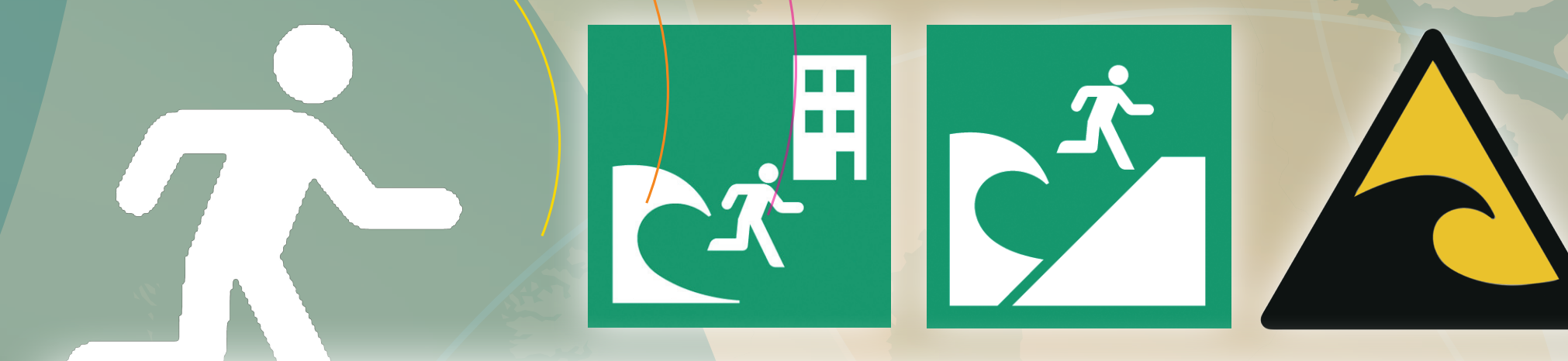
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Tsunamis slow down but grow in size as they come ashore. In the Mediterranean basin they propagate in a very short time. In fifteen minutes, a large area of the coast near the source of the tsunami is hit, and within an hour the tsunami has crossed the basin and arrived on the opposite coast.

## WHAT IS A TSUNAMI?



A tsunami is a series of enormous waves created by an underwater disturbance usually associated with earthquakes occurring below or near the ocean. A tsunami propagation velocity is reduced in shallow water while the height of its waves rapidly increase.



**An earthquake is one of nature's tsunami warning signs, if you're at the beach and the ground shakes so hard that you can't stand up, a tsunami may have been generated.**

**Tsunami may be preceded by a rapid fall in sea level as the ocean retreats exposing fish and rocks on the sea bottom.**

**Tsunamis travel at jet airliner speeds in the deep ocean, where the waves are only tens of centimetres high. Tsunamis slow down and grow in height tremendously upon entering shallow water.**

**After an earthquake, move quickly inland and to higher ground.**

**KNOWLEDGE IS SAFETY**  
**NEAMTIC PROVIDES YOU KNOWLEDGE!**

