



**GEO-HASARDS
IN THE MEDITERRANEAN SEA**

JEAN MASCLE, DR CNRS

RISK = hazard (alea) + vulnerability

Hazard = probability of catastrophic event

Vulnerability = societal impact

Classification

Nature

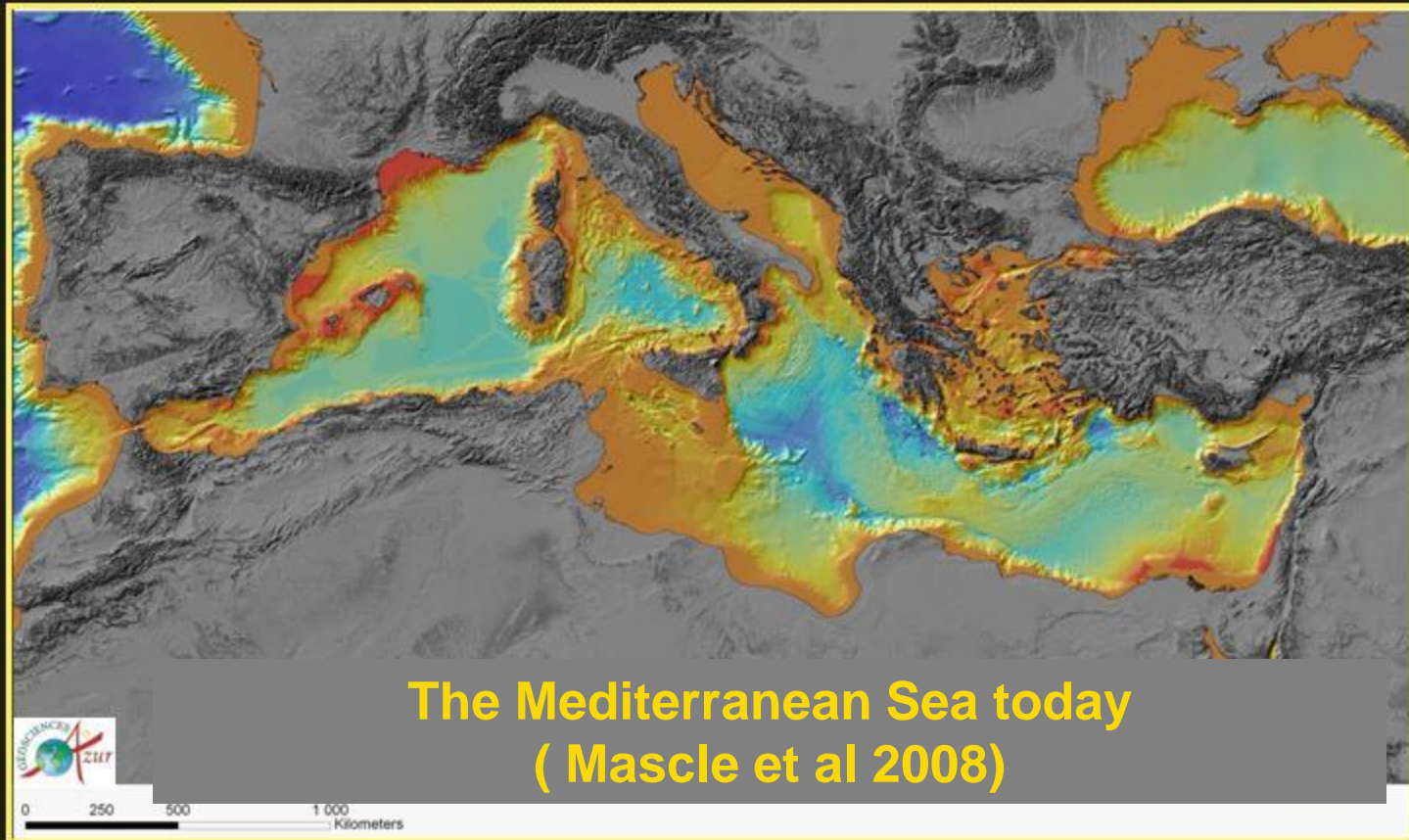
Meteorology, climate

Geology/geophysic

Biology, mixed,....

Recurrence

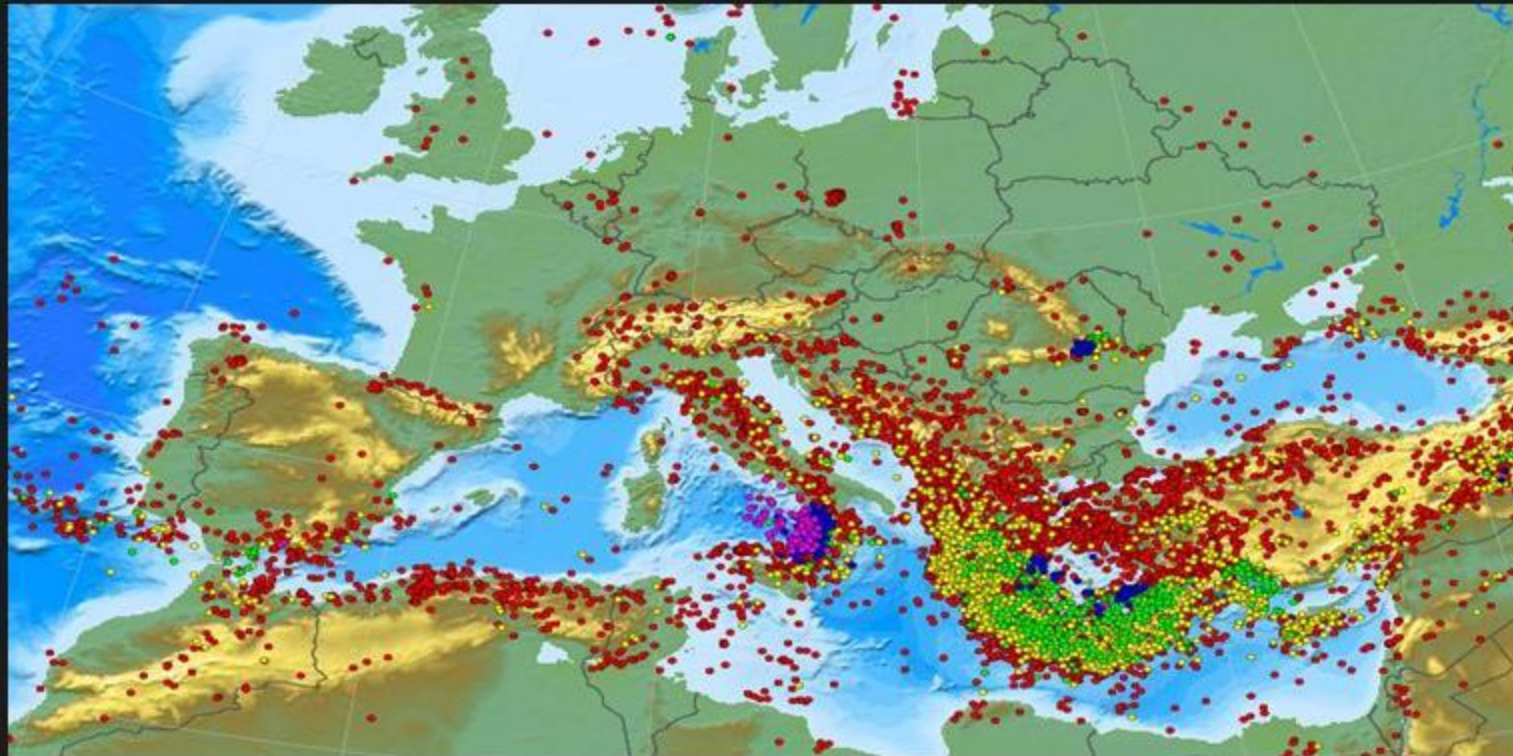
Annual, decennial, secular,...



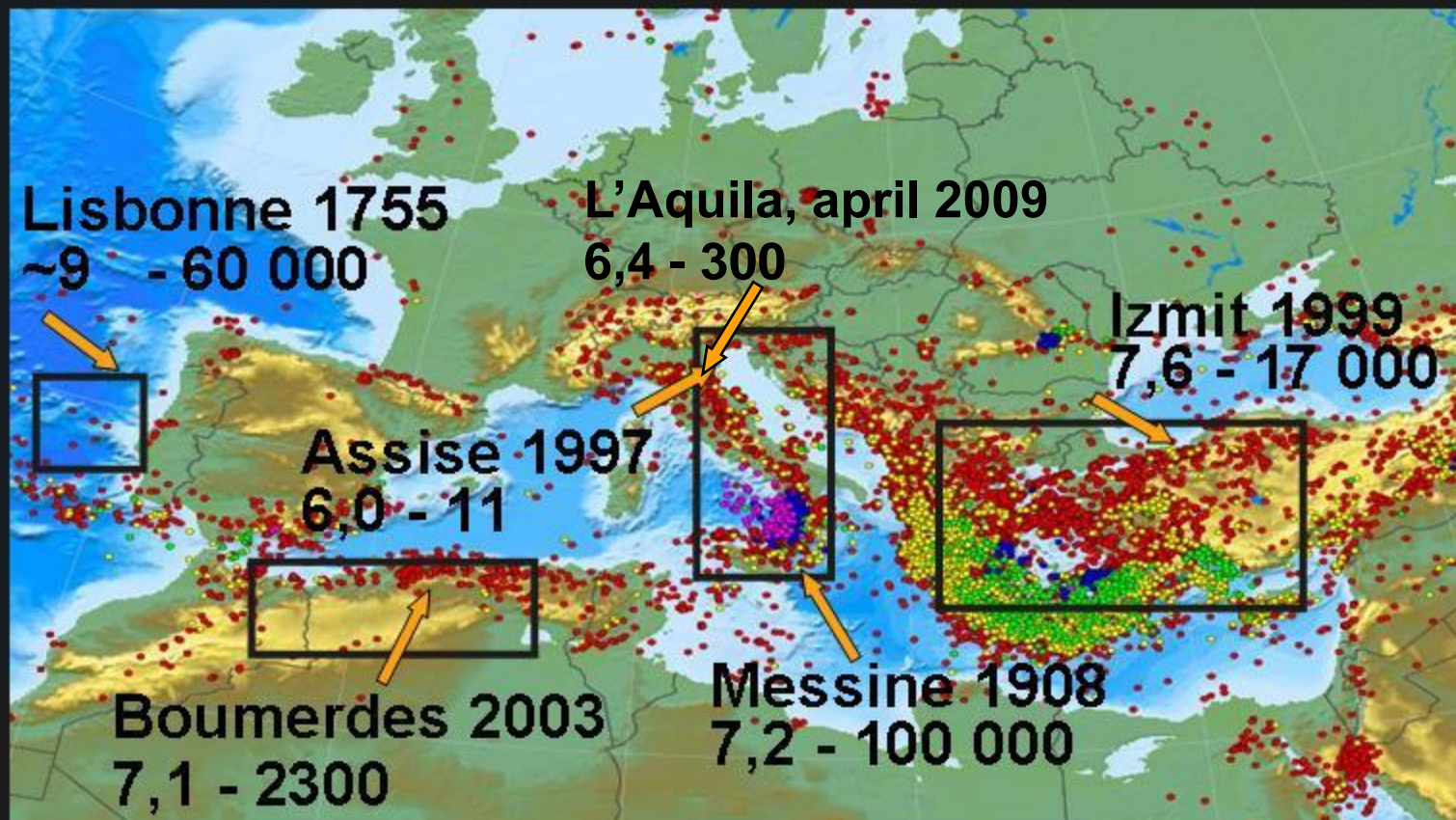


MAJOR HISTORICAL and RECENT SEISMS IN MEDITERRANEAN SEA





SEISMS (Magnitude > 3) between 1964 and 2006



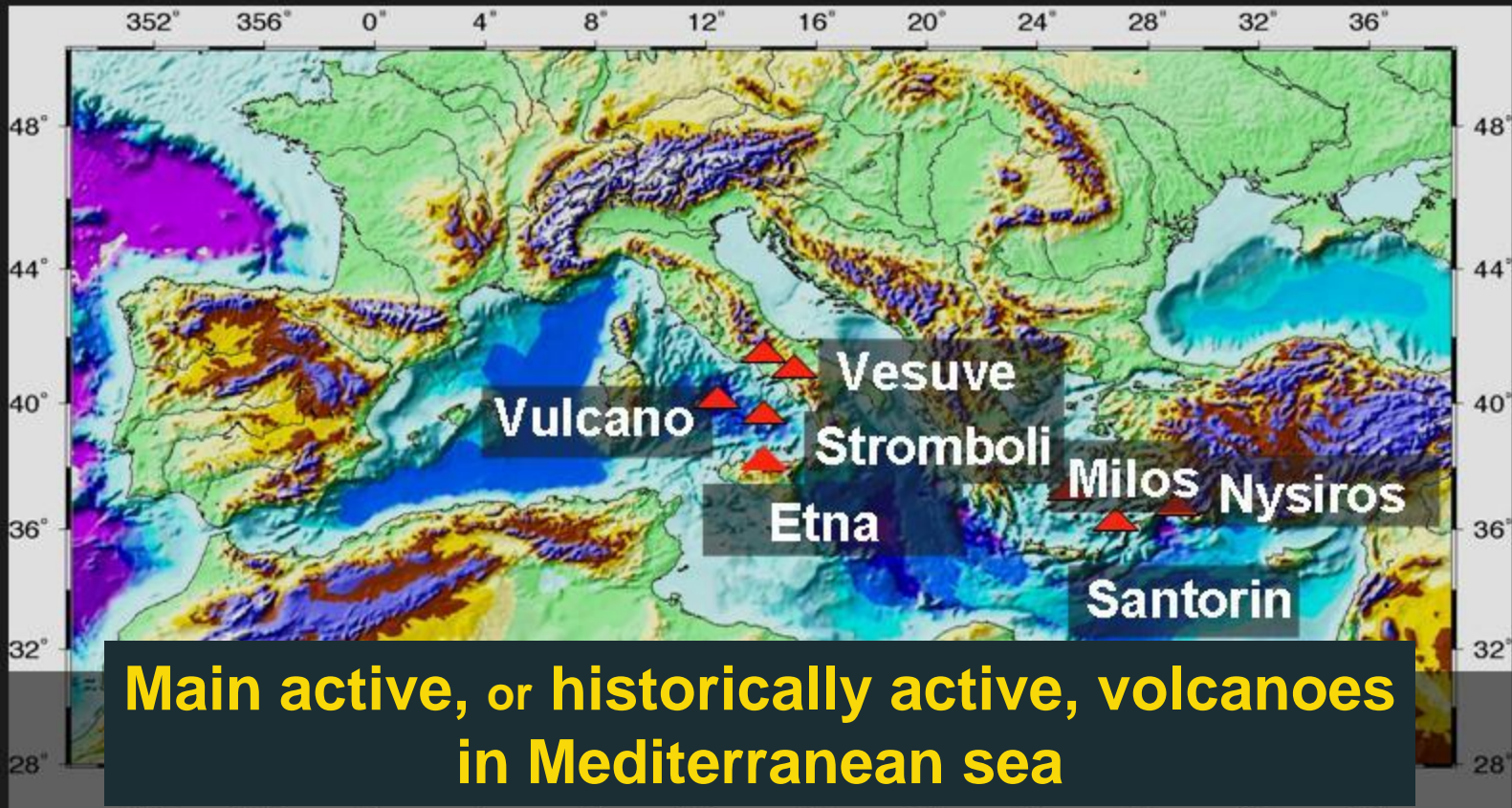


MAJOR ACTIVE, OR HISTORICALLY ACTIVE, VOLCANOES IN MEDITERRANEAN SEA

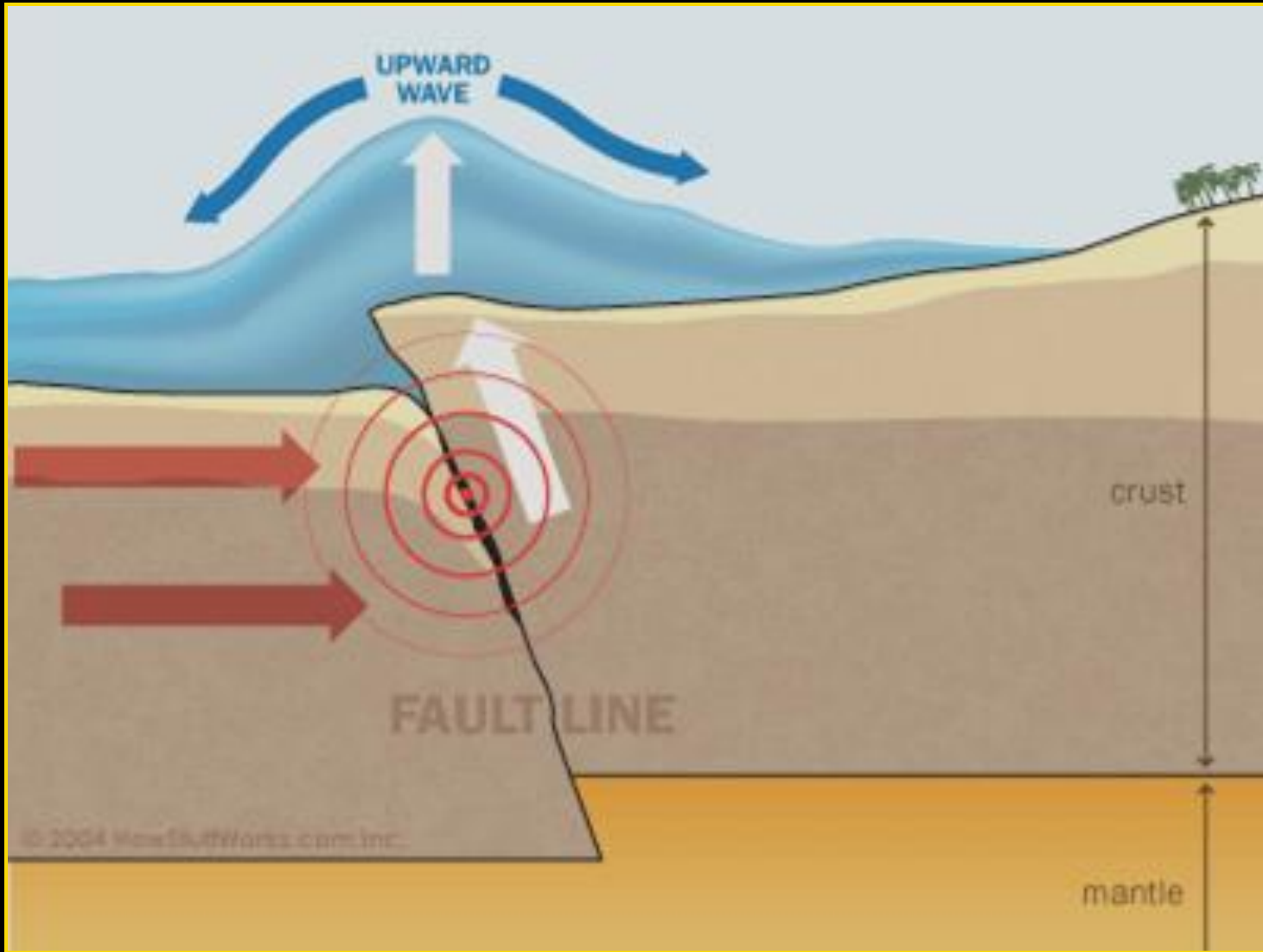


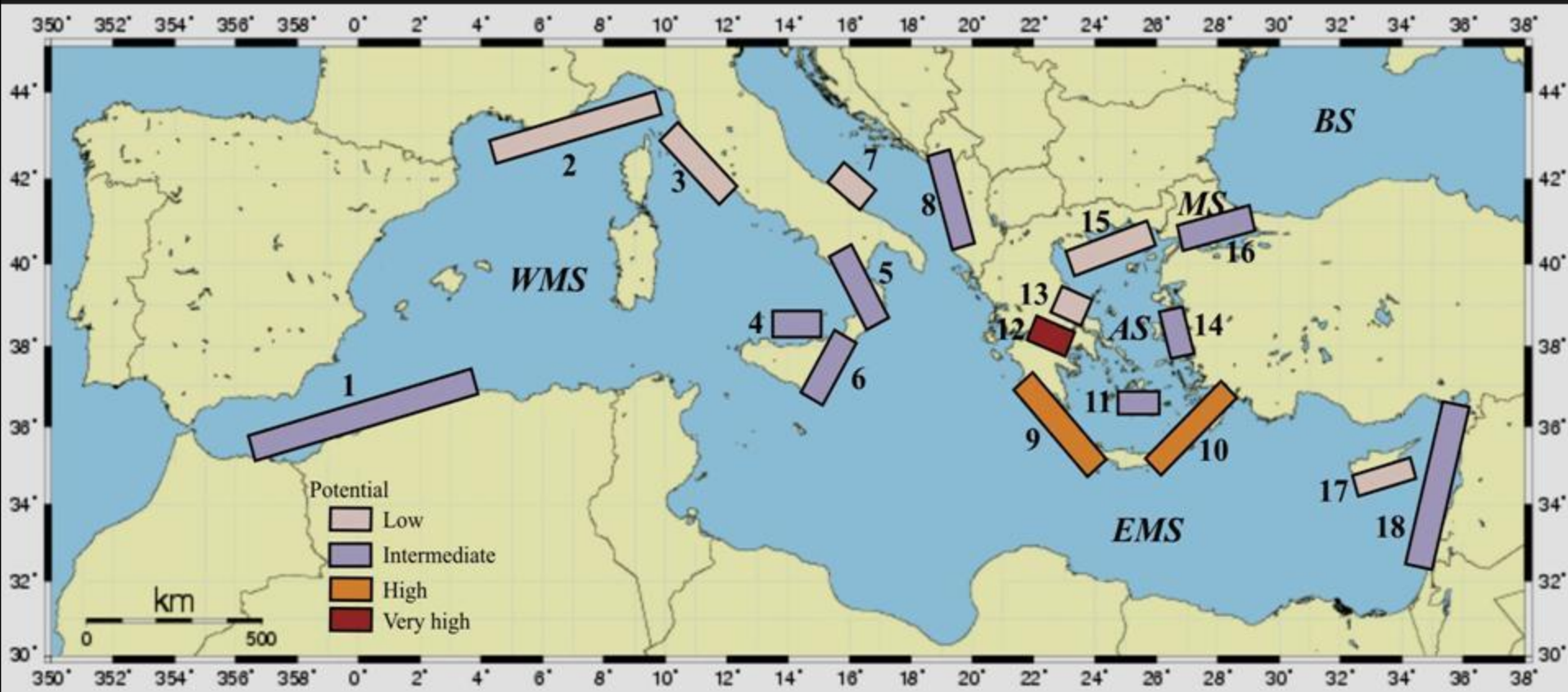
2002-10-27
N17 09:58 UTC
Etna eruption
www.fvalk.com

Vesuvio, Eolian islands, Etna



Historical Tsunamis in Mediterranean Sea





Main tsunamigenic sources in Mediterranean Sea (after Papadopoulos and Fokaefs, 2005)

Historical occurrences in the Mediterranean Sea



- Serious destruction
- Moderate destruction
- Light destruction

Dots show epicenters of the earthquakes that caused tsunamis.





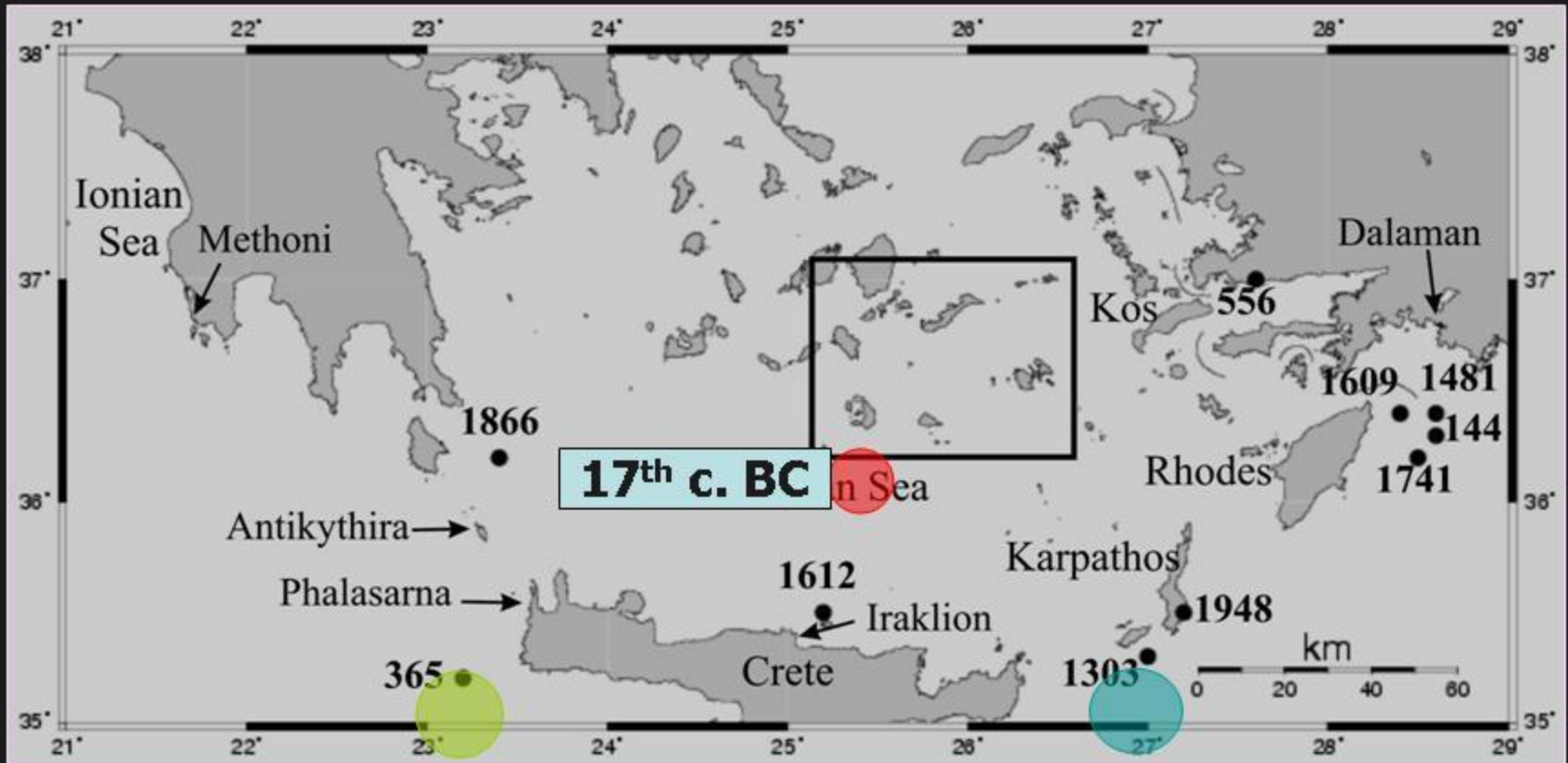
Antibes, October 16, 1979

Three main tsunamigenic sources

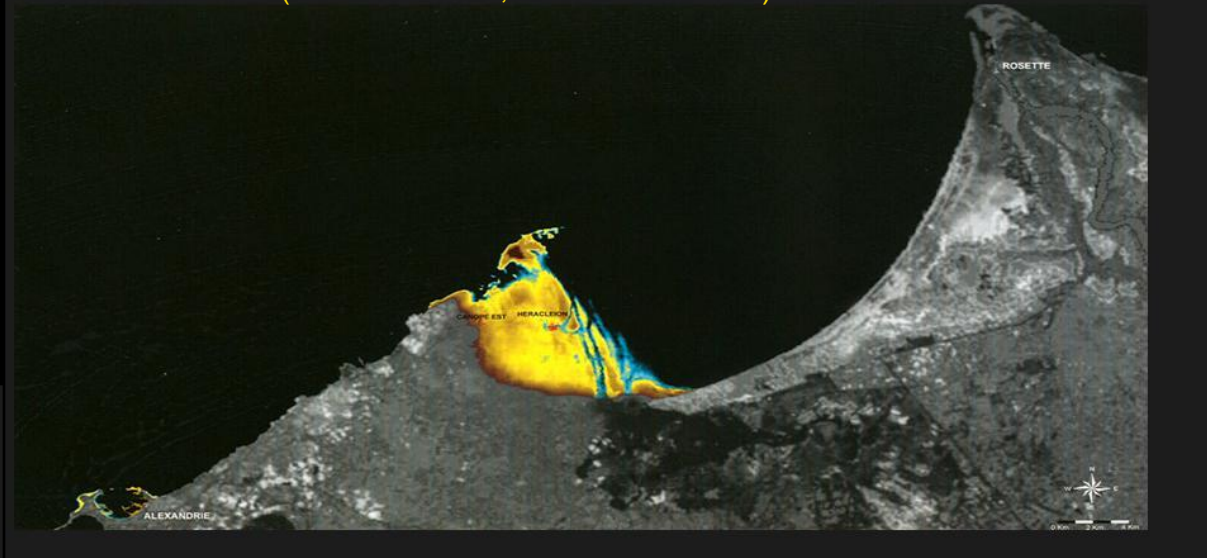
17th BC eruption

AD 365 EQ

1303 EQ



Historical catastrophic events in the Aegean area



**Consequence
In the area of Alexandria**

LE RENDEZ-VOUS DE L'ASSURANCE TRANSPORTS

Cannes

28th and 29th April 2009



CESAM



LE
RENDEZ-VOUS
DE CANNES