

## Warning Centers

NOAA has two tsunami Warning Centers. They are both part of the National Weather Service.



The **National Tsunami Warning Center** in Palmer, AK forecasts for

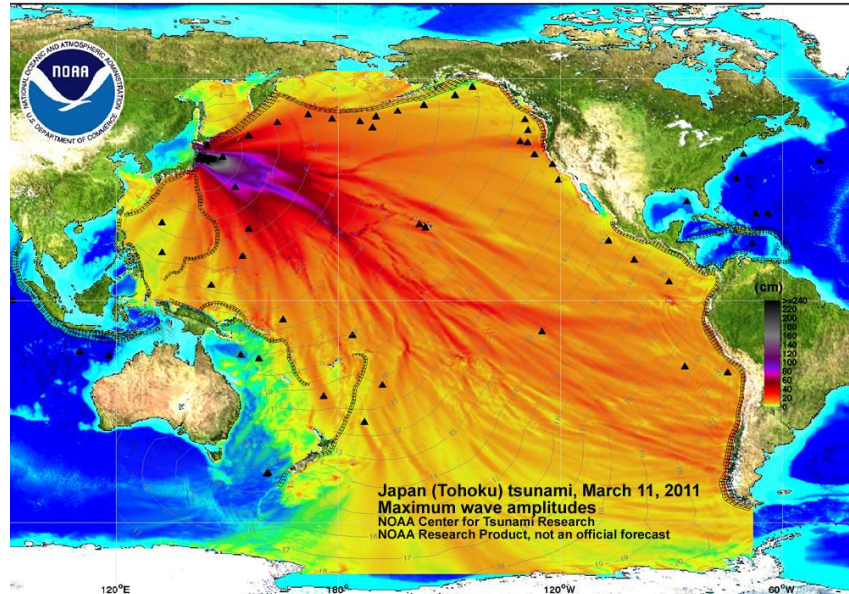
the coastlines of continental US and Canada.

The **Pacific Tsunami Warning Center**



in Honolulu, HI forecasts for the US Pacific and US Pacific territories.

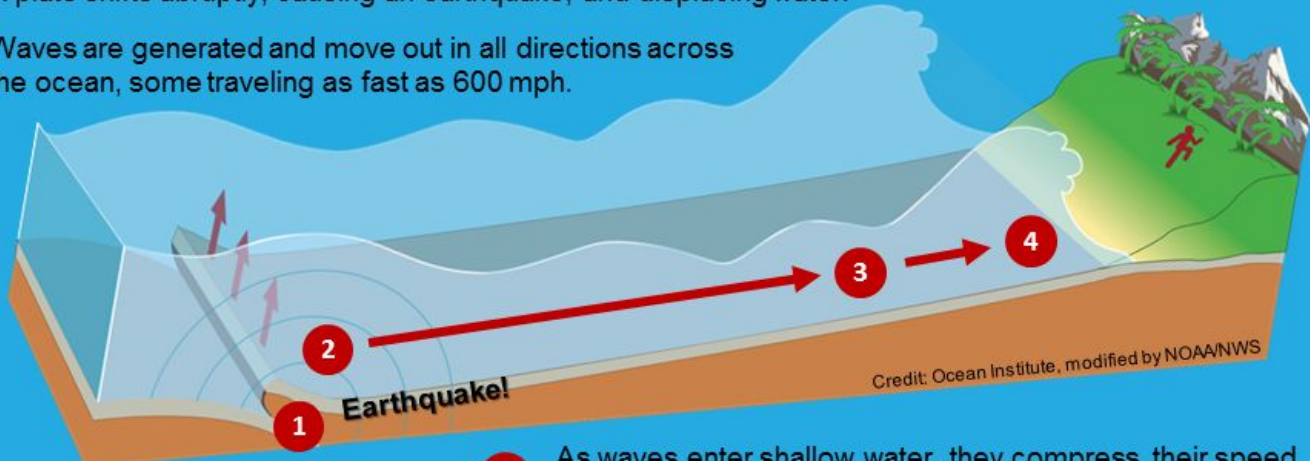
Tsunami is a series of waves, caused by a displacement of water. Tsunamis that risk lives and property happen a few times each year.



## How a Tsunami Works

Most tsunamis are caused by large earthquakes below or near the ocean floor.

- 1 A plate shifts abruptly, causing an earthquake, and displacing water.
- 2 Waves are generated and move out in all directions across the ocean, some traveling as fast as 600 mph.



Credit: Ocean Institute, modified by NOAA/NWS

- 3 As waves enter shallow water, they compress, their speed slows, and they build in height.
- 4 The wave height increases, and associated currents intensify, becoming a threat to life and property.

[weather.gov/tsunamisafety](http://weather.gov/tsunamisafety)



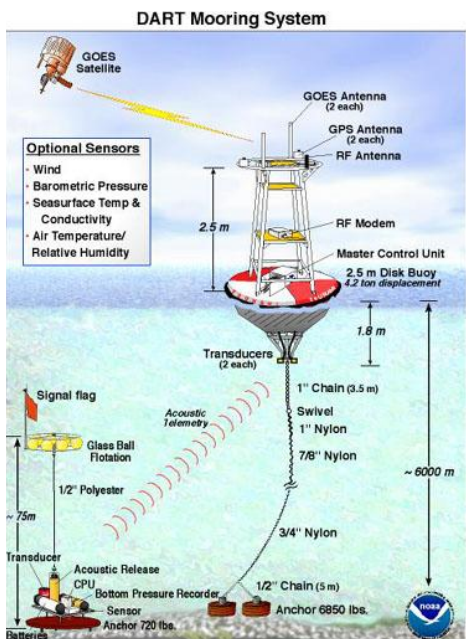


# Learn more about: Tsunamis

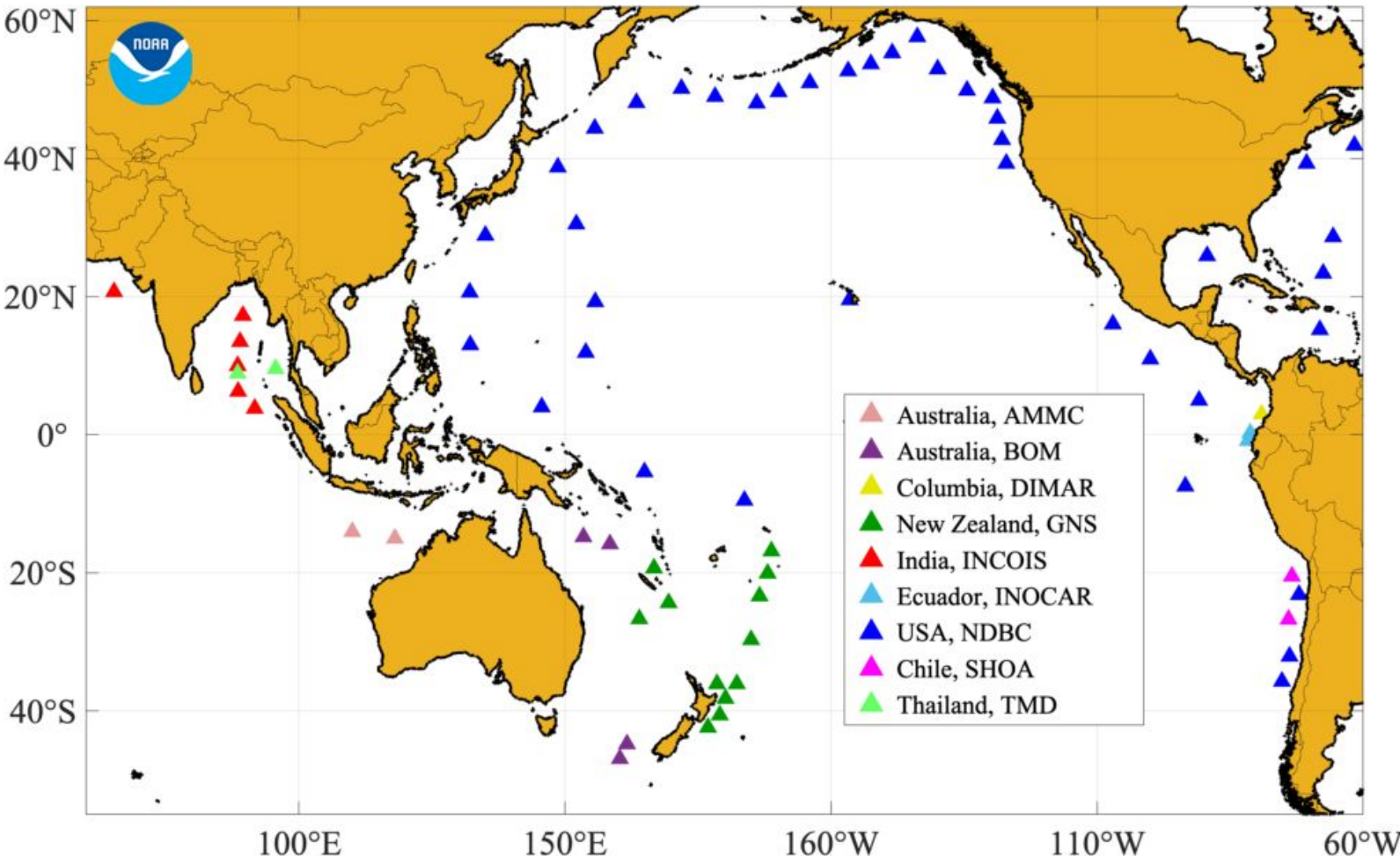


NOAA uses DART buoys to monitor wave height and track tsunamis. 39 DART buoys are located around the Pacific Ocean. Information from the ocean is sent to Tsunami Warning Centers.

NOAA also researches historical and paleo-tsunami events to learn more about tsunamis. For example, geological evidence of a tsunami in the year 1700 can be found in California, Oregon and Washington today.



This map shows locations of DART buoys maintained by NOAA, as well as tsunami monitoring buoys maintained by other countries.



**NOAA Boulder**

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