



NOAA NWS Tsunami Program

A Presentation to the
NOAA Science Advisory Board

Mike Angove
Tsunami Program Lead
NWS

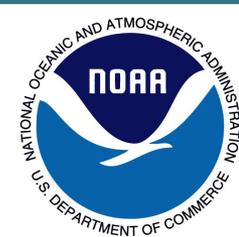
April 14, 2020



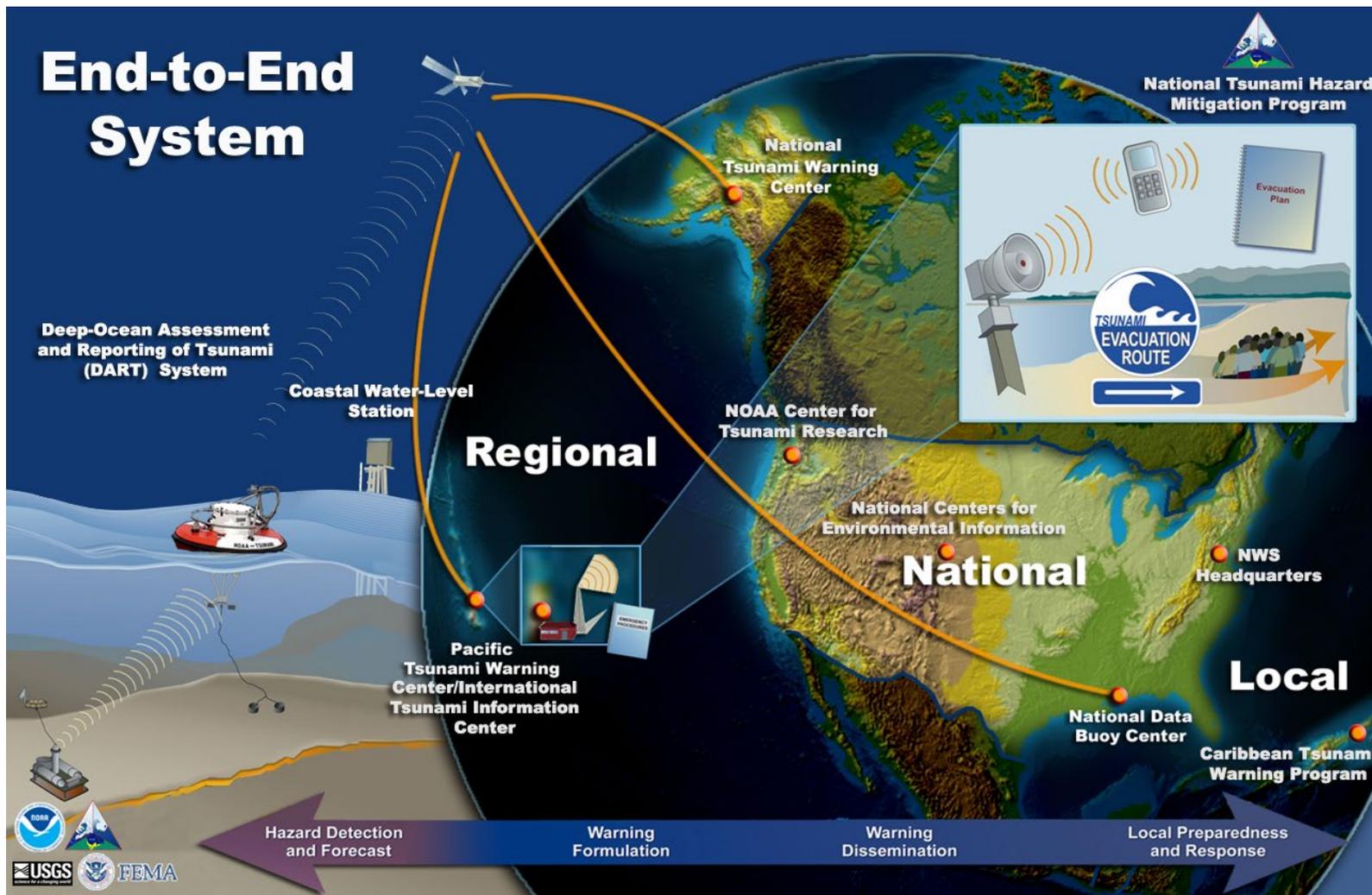
Outline



- National Weather Service Tsunami Program Overview
 - Warning System
 - Detection and Observation
 - Forecast and Warning
 - Preparedness & Mitigation
- International
- Research and Development FY20
- Future Vision

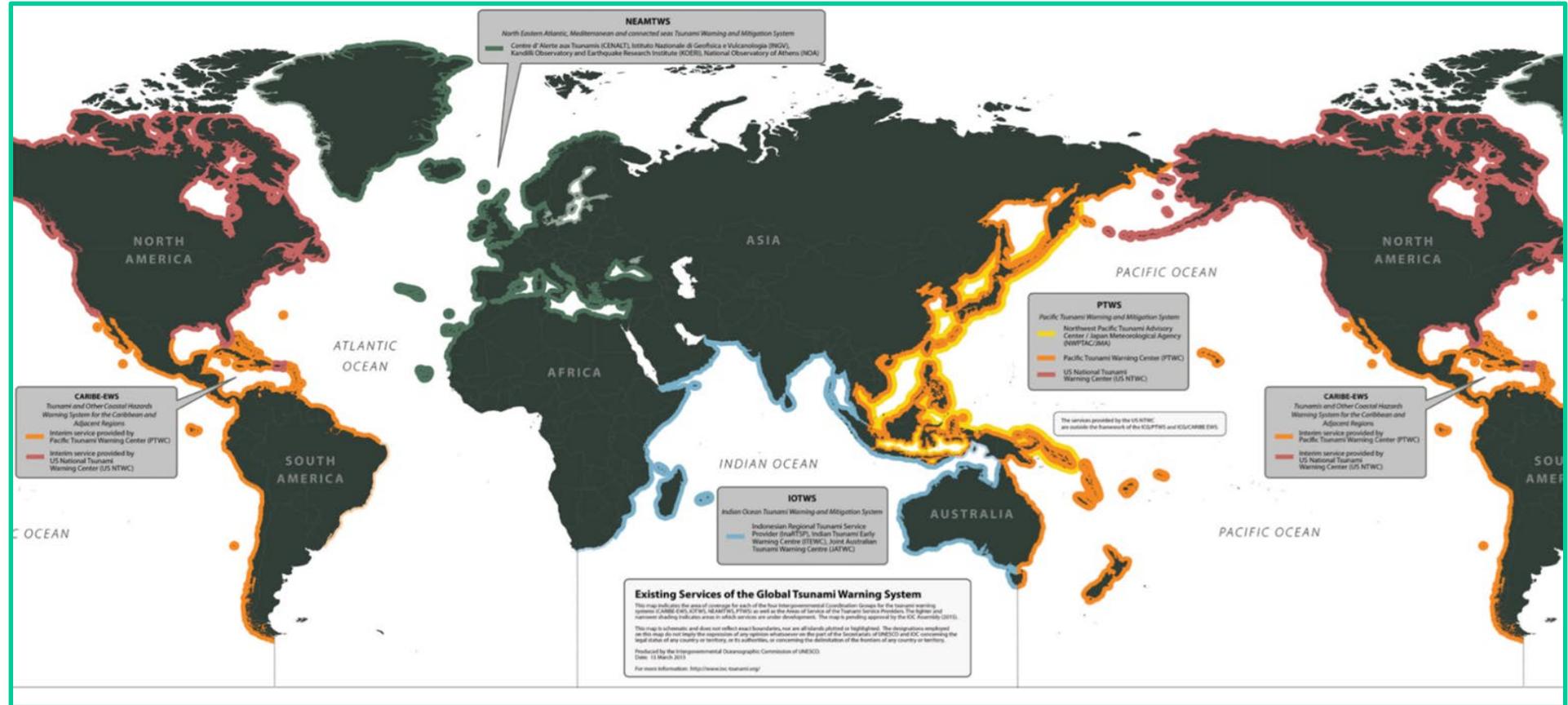


U.S. Tsunami Warning System



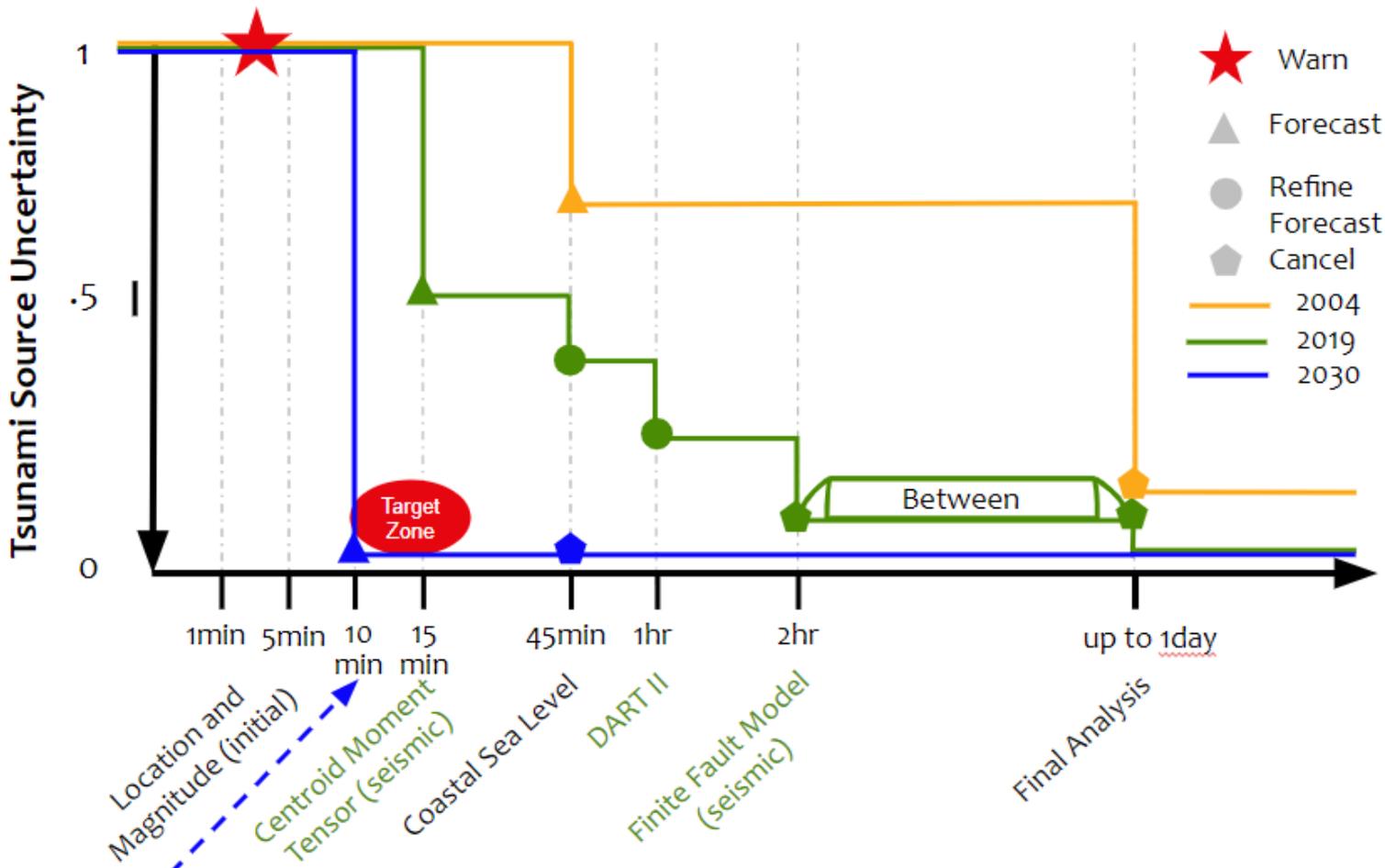


Global Tsunami Warning System





Science Objective: Improving *Time to Forecast*



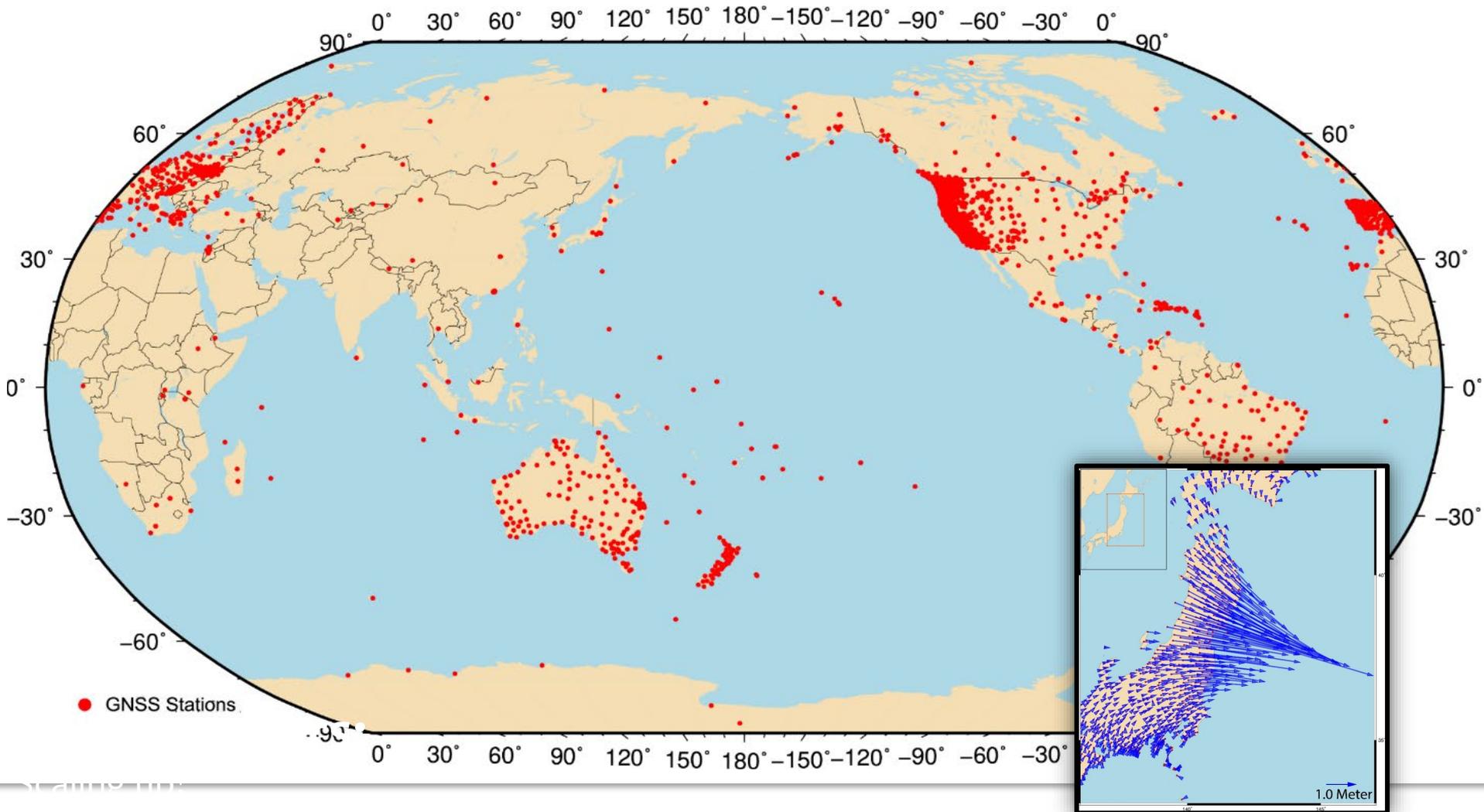
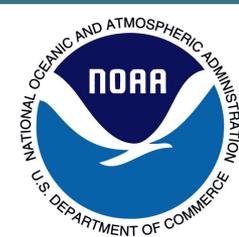
- DART 4G
- GNSS/Finite Fault
- Bottom Pressure Observatories
- Industry Cable Instrumentation



Data Availability
2004—2030

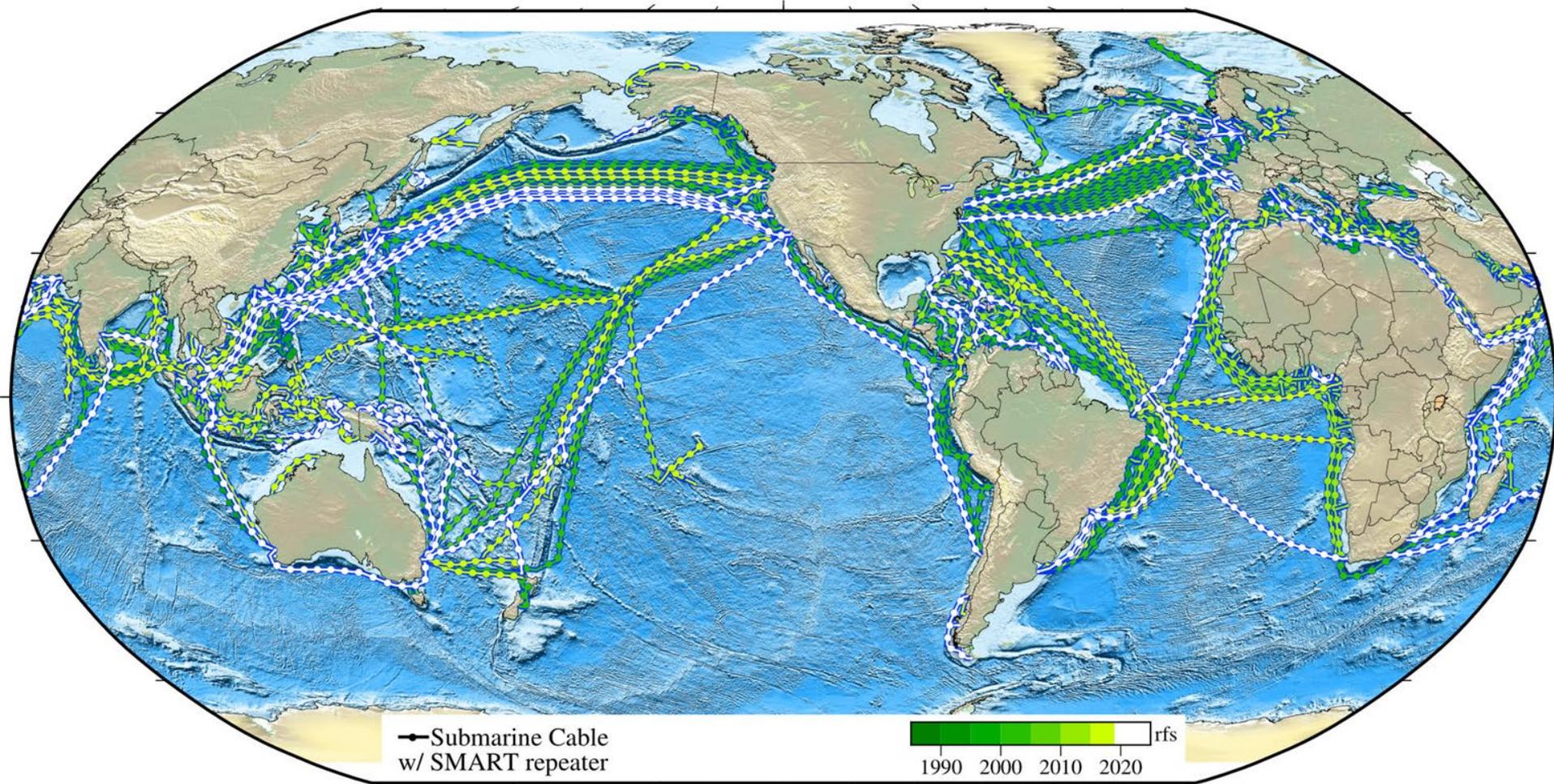
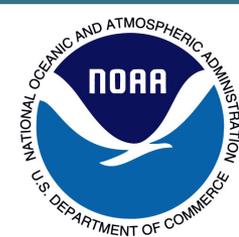


GNSS





Industry Cables





Q&A

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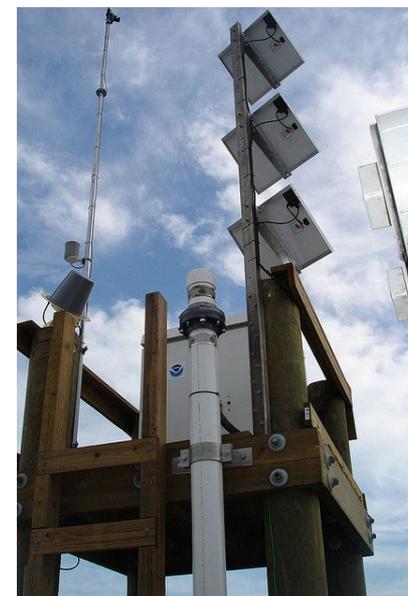
Backup





Detection and Observation

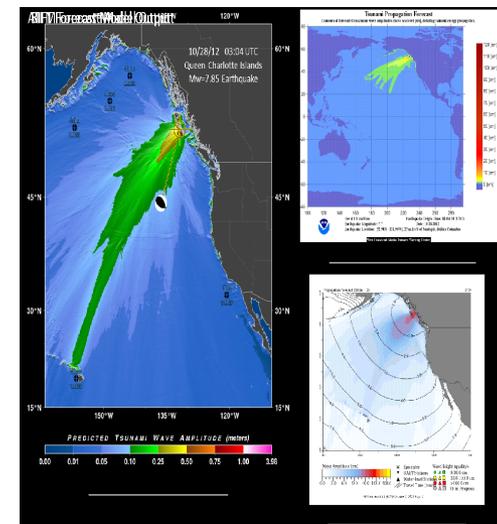
- Seismic Networks
 - Alaska, Hawaii, Caribbean
- Sea-Level Networks
 - 39 Deep-Ocean Assessing and Reporting of Tsunamis (DART) observation systems
 - National Data Buoy Center
 - Coastal sea-level stations
 - Center for Operational Oceanographic Products and Services (210)





Forecasting and Warning

- National Tsunami Warning Center
- Pacific Tsunami Warning Center
- Pacific Marine Environmental Laboratory (models)
- National Centers for Environmental Information (coastal elevation and historical archive)



National Tsunami Warning Center, Palmer, Alaska

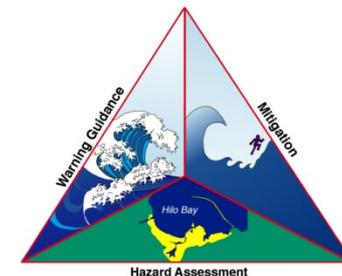


Pacific Tsunami Warning Center (at the NOAA Daniel K. Inouye Regional Center), Honolulu, Hawaii



Preparedness and Mitigation

- National Tsunami Hazard Mitigation Program
 - NOAA, Federal Emergency Management Agency, U.S. Geological Survey, 28 states and territories
- TsunamiReady Program
 - 195 U.S. communities
- Weather Forecast Offices





International Commitment—IOC

NOAA supports the UN's Intergovernmental Oceanographic Commission as **Tsunami Service Provider** for the Pacific (PTWS) and Caribbean (CARIBE EWS) through:

- Pacific Tsunami Warning Center
- International Tsunami Information Center
- Caribbean Tsunami Warning Program
- National Weather Service Headquarters





Ocean Observations

