



# U.S. Tsunami Warning System

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**International Symposium**  
**"Making the Pacific Ready for the Next Tsunami"**

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# Building a Weather-Ready Nation

Becoming a Weather-Ready Nation is about building community resiliency in the face of increasing vulnerability to extreme weather:

## ● “Ready, Responsive, Resilient”

### ● WRN REQUIRES:

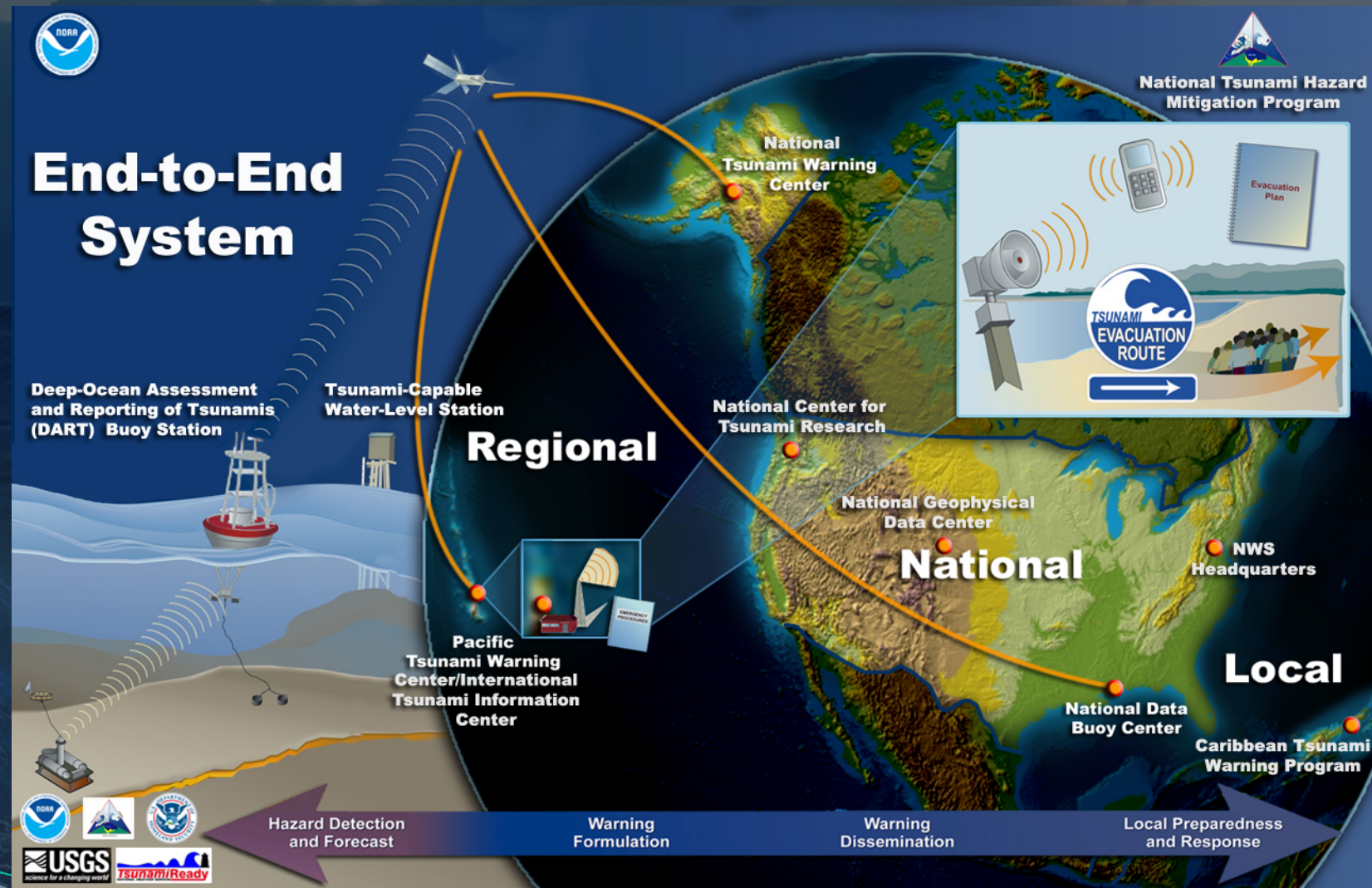
- Accurate Forecasts and Warnings
- Extended Forecast Accuracy and **Consistency**
- Linking Physical and Social Sciences
- Multiple Dissemination Pathways
- Working with Partners to Gain Response; includes embedding NWS in Emergency Operations Centers



*Involves entire Weather Enterprise **WORKING TOGETHER**  
to achieve far-reaching national preparedness for weather events*

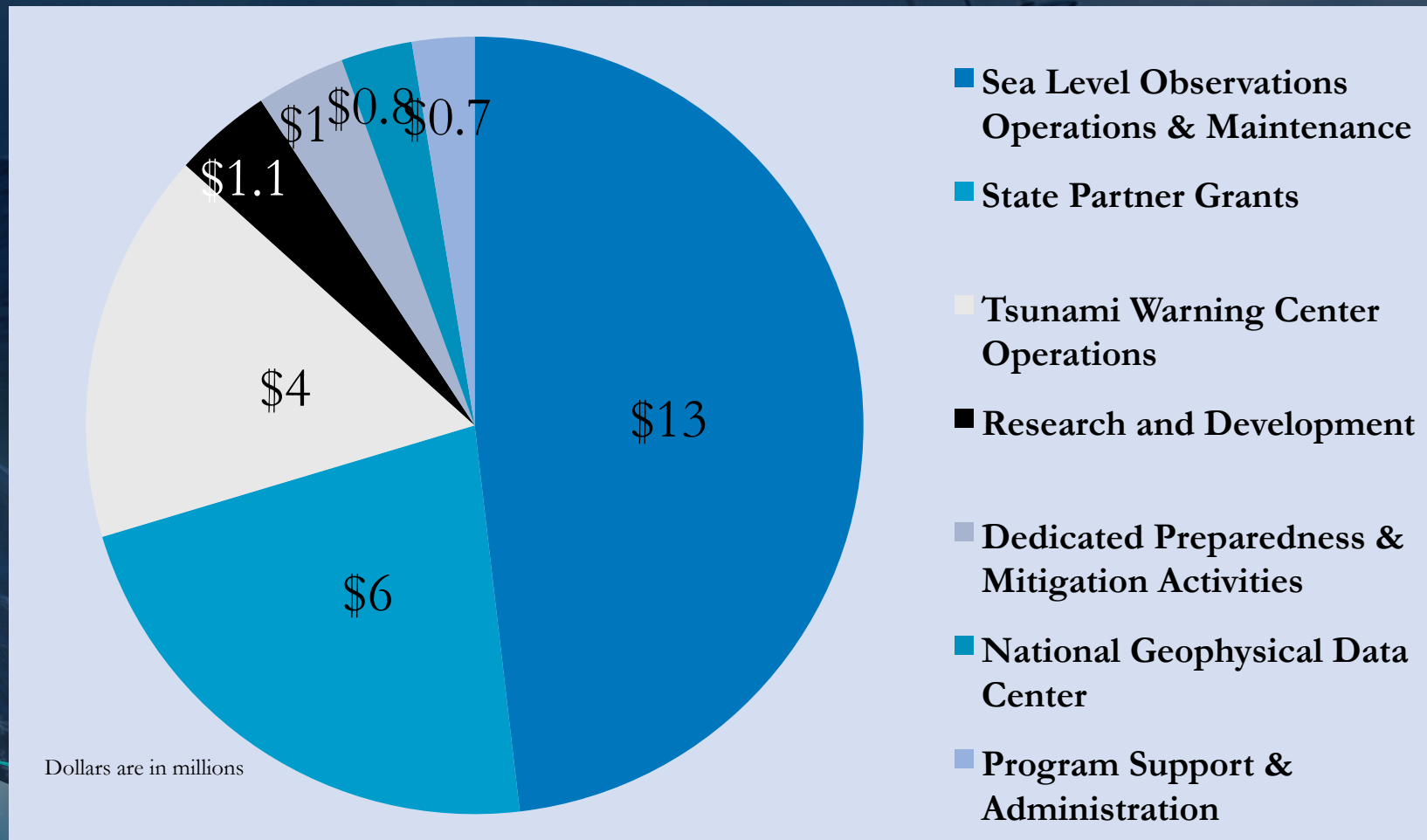


# U.S. Tsunami Warning System



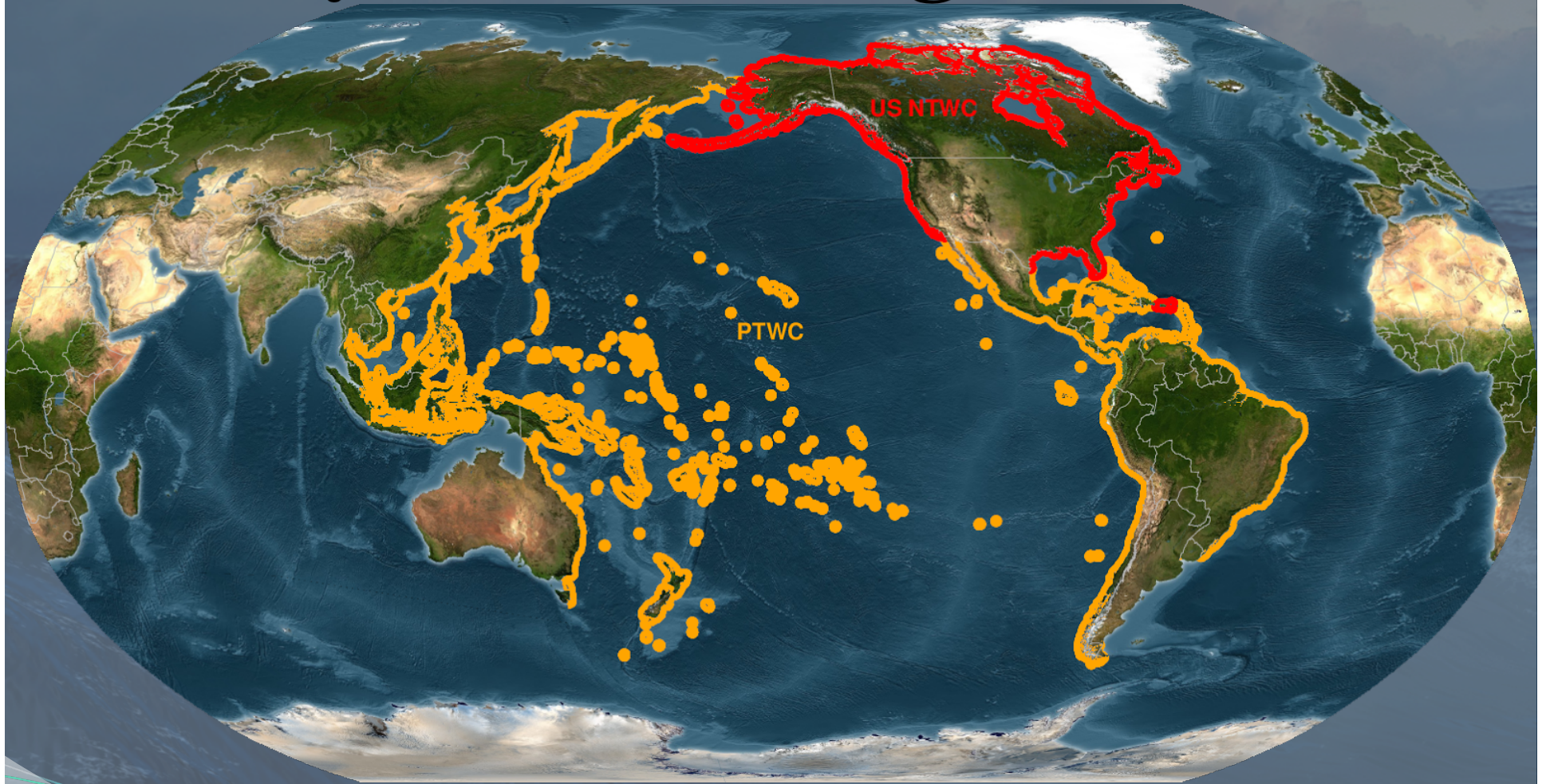
# Tsunami Budget in 2015

U.S. Congress Appropriation to NOAA approximately \$27M



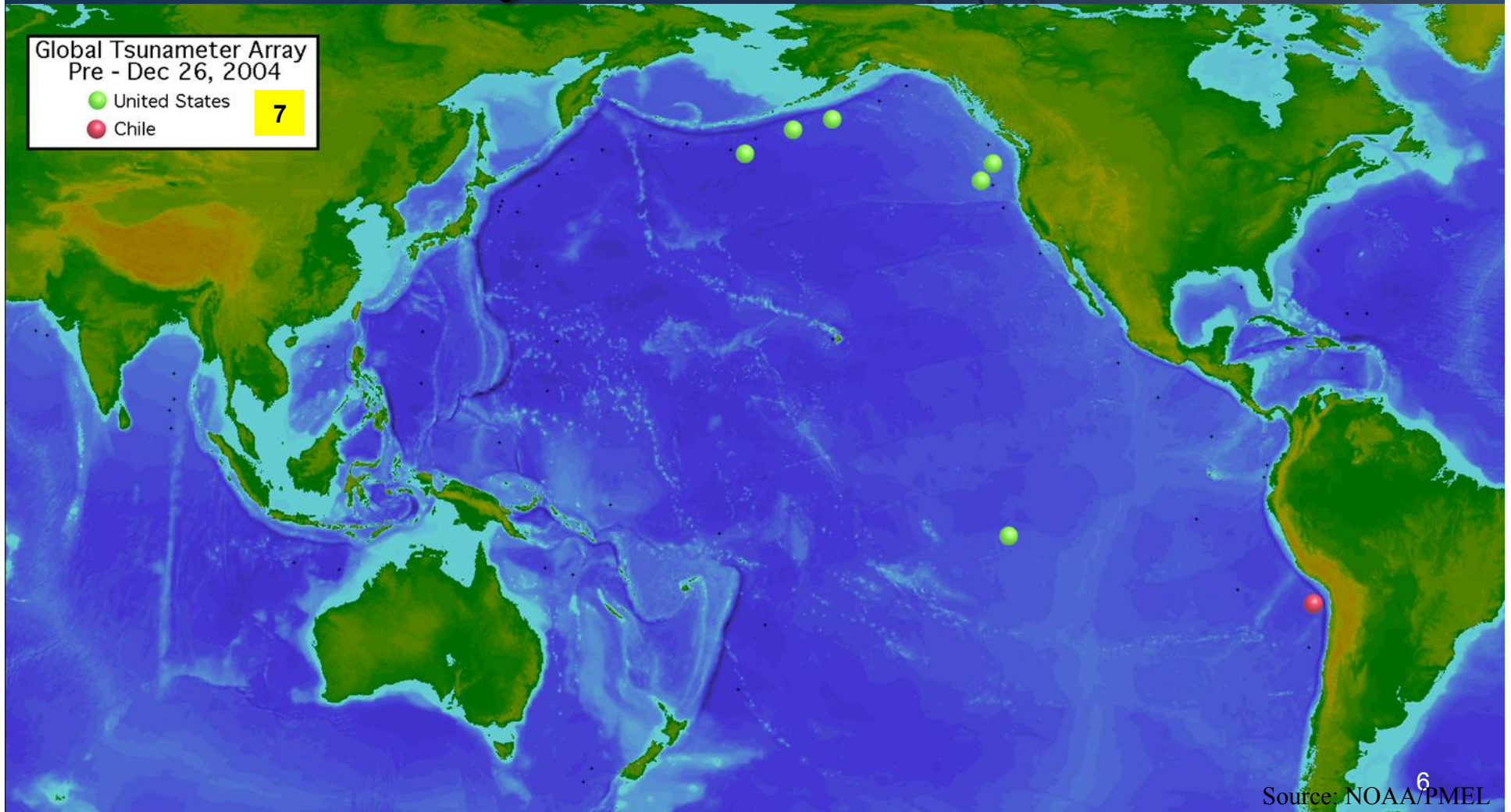


# U.S. Tsunami Warning System Coverage Areas



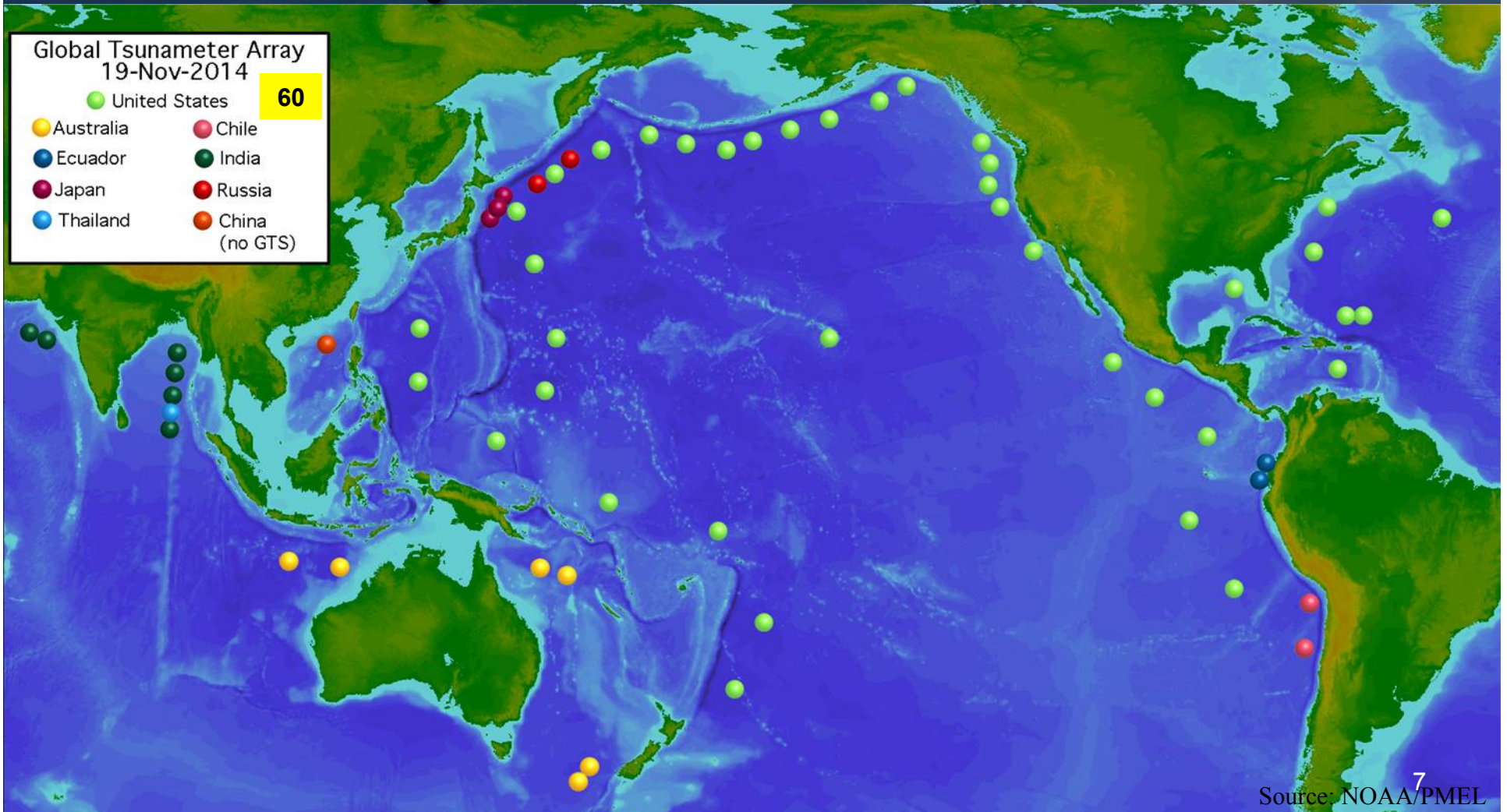


# Deep-Ocean Assessment and Reporting of Tsunamis (DART) Buoy Stations – 2004 All



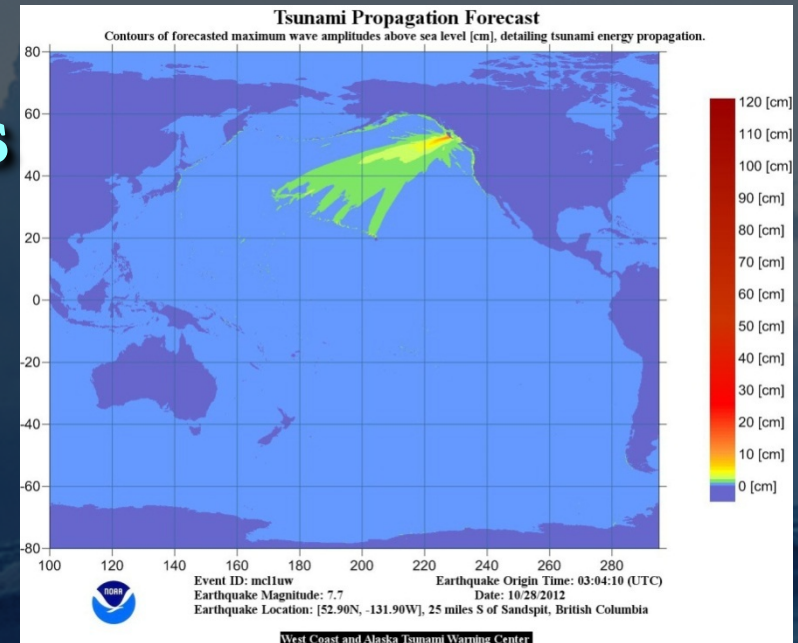
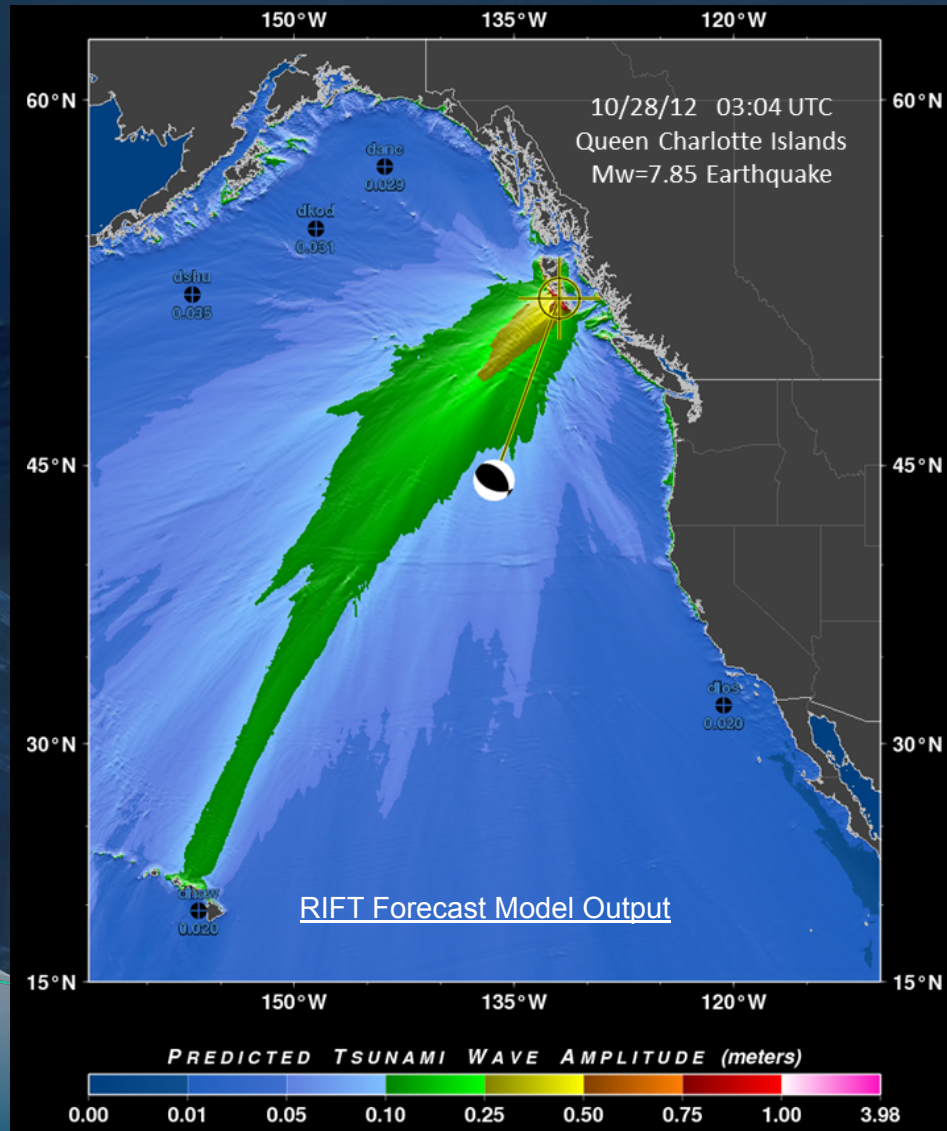


# Deep-Ocean Assessment and Reporting of Tsunamis (DART) Buoy Stations – 2015 Global

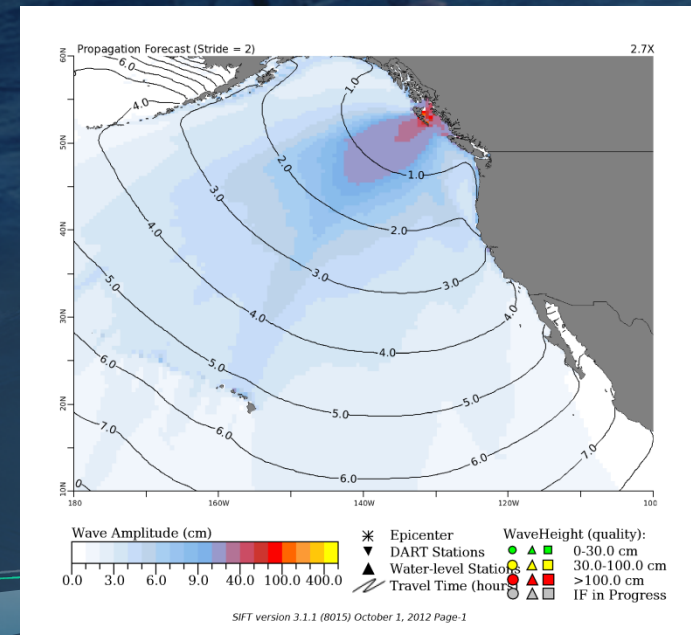




# Tsunami Forecast Models



[ATFM Forecast Model Output](#)



[SIFT Forecast Model Output](#)



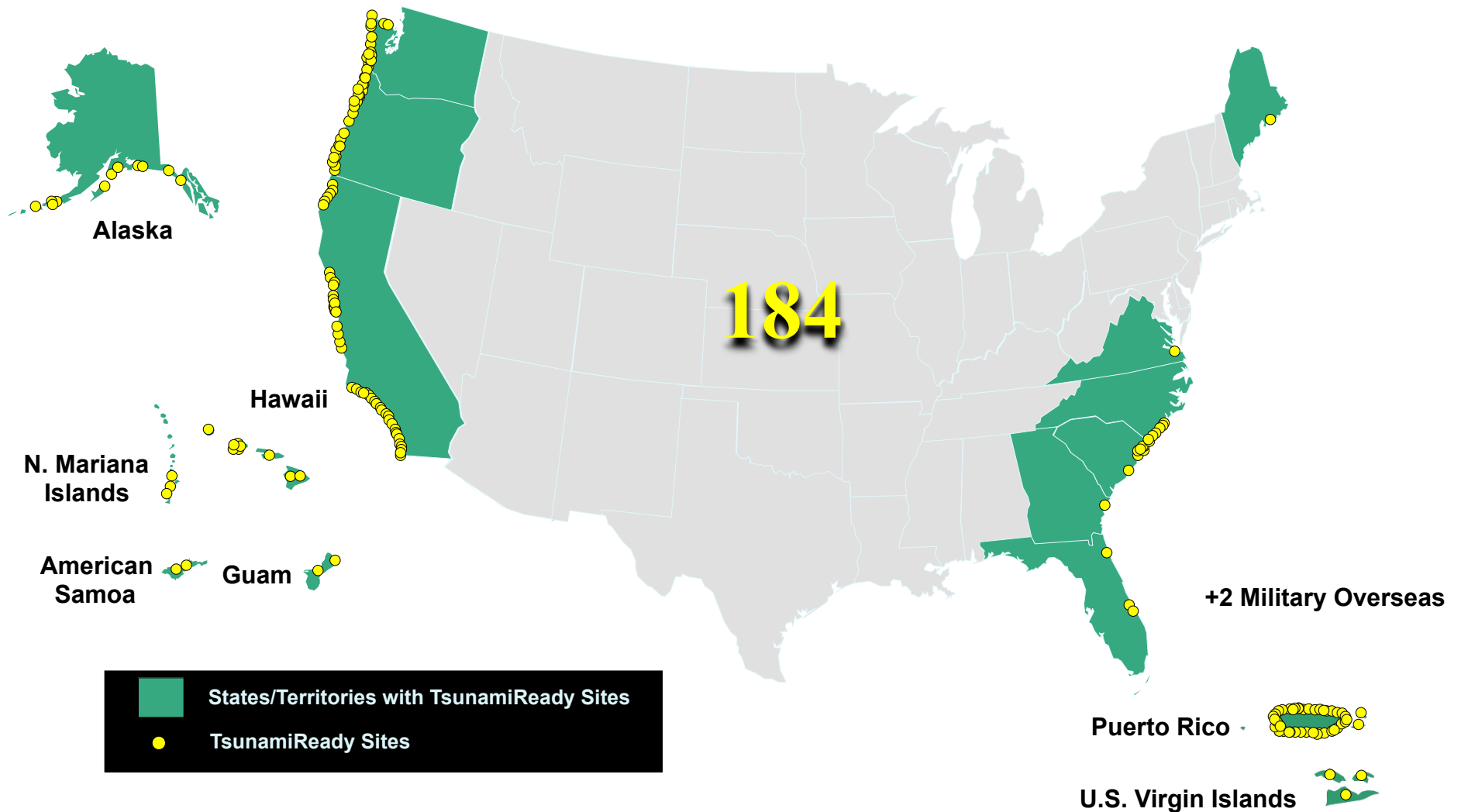
# NOAA's Domestic Tsunami Outreach and Education



**Outreach** and **Education** of tsunami threat are key for residents to respond safely to tsunami events



# TsunamiReady Sites—2015





# NOAA International Outreach: Weather Ready Nations Approach



**NOFOAGA SAOGALEMU E  
SULUFA'I IAI I TAIMI O SUNAMI**

**TSUNAMI  
EVACUATION ZONE**



A malosi ma mata'utia le lulu o se mafui'e, pe fa'afuase'i le sami, pe faalogoina le gogolo o le sami, aga'i i nofoaga saogalemu. Mulimuli i faasino ala. Aua nei toe agai se isi i nofoaga mauualalalo poo sone e lē saogalemu, sei vagana ua tuuina atu se faamatalaga aloaia mai le Malo e faamautuina ai ua saogalemu.



# NEWS



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# Vision Becoming Reality

- Committed to improving the last mile using new tools and new science – physical and social
- An increasingly vulnerable population requires a “all hands on deck” approach to create a society that is **ready, responsive and resilient**
- We can't build a Weather-Ready Nations alone



# THANK YOU!



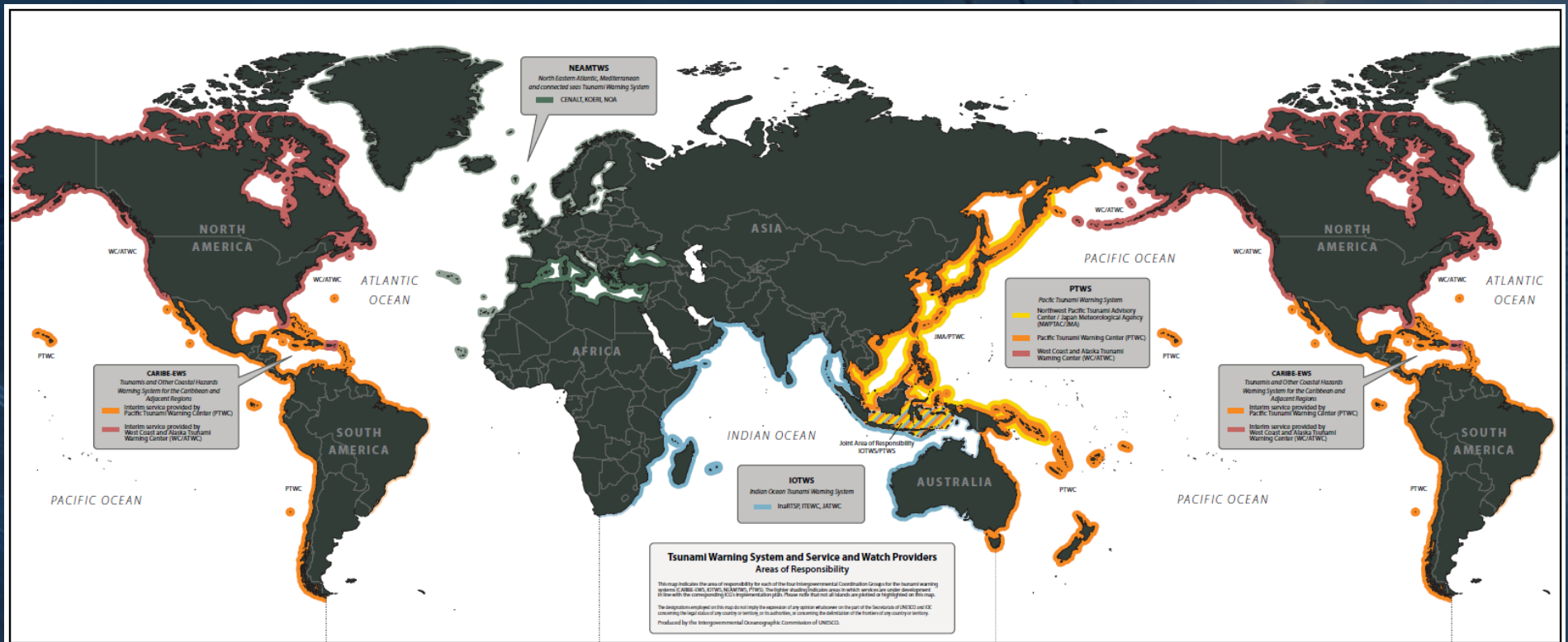
National Weather Service



# Back-up



# Challenges to International Tsunami Warning System





# U.S. Tsunami Warning Centers

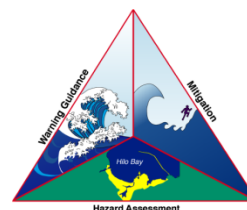




# NOAA Tsunami Program Components (cont'd)

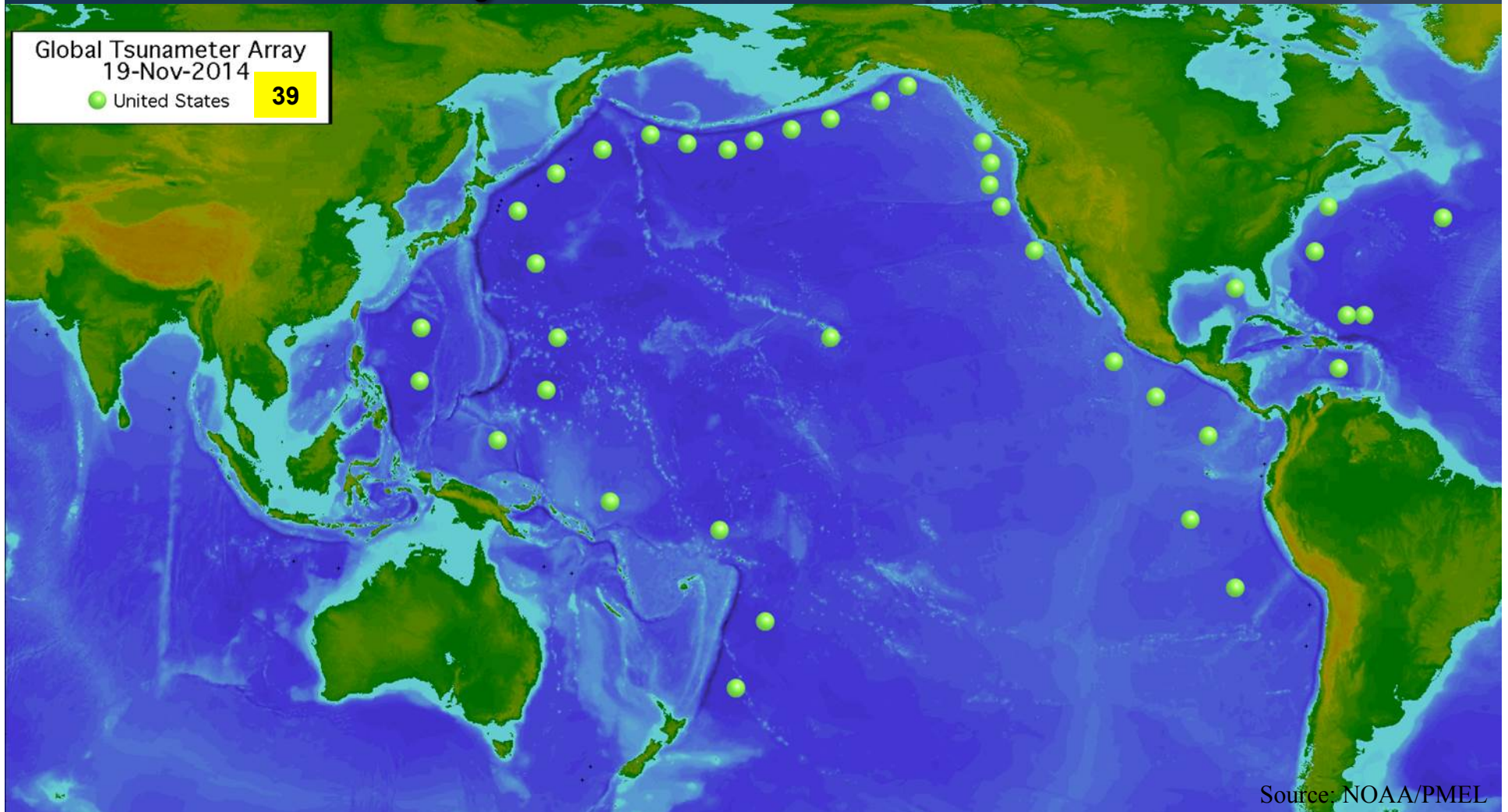
## Information and Mitigation

- International Tsunami Information Center (ITIC)
- Caribbean Tsunami Warning Program (CTWP)
- National Tsunami Hazard Mitigation Program (NTHMP)
- TsunamiReady Program
- NWS Weather Forecast Offices





# Deep-Ocean Assessment and Reporting of Tsunamis (DART) Buoy Stations – 2014 U.S.





# Key Weather Ready National Partnership: SAIC's Role

- Thank you for supporting the WRN Ambassador Initiative!
- External Partnership Engagement
  - Collaboration with all partners-- domestic and international, government and commercial/private
  - SAIC was among the first WRN Ambassadors and continues to improve technology and operational systems to improve the performance of the tsunami network (DART buoys)
  - Sharing experiences, best practices and expertise at meetings like this one - all help to develop national and global resiliency and improve service delivery and the forecasting process

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to achieve far-reaching national preparedness for weather events*