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Intergovernmental
Oceanographic
Commission



National Oceanic
and Atmospheric
Administration



Servicio Hidrográfico y
Oceanográfico de la
Armada de Chile



International
Tsunami Information
Centre

UNESCO IOC / NOAA

International Tsunami Information Centre
Tsunami Training Video, November 2022

Pacific Tsunami Warning Center (PTWC)

What happens for a Pacific earthquake?

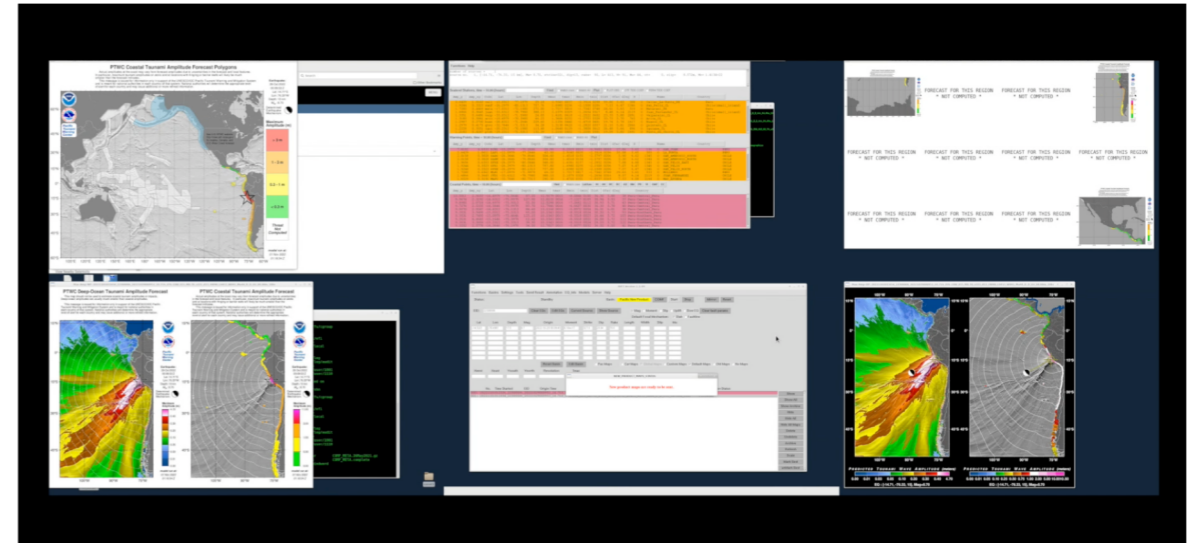
Dr. Charles “Chip” McCreery
Director, PTWC

Dr. Laura Kong
Director, ITIC

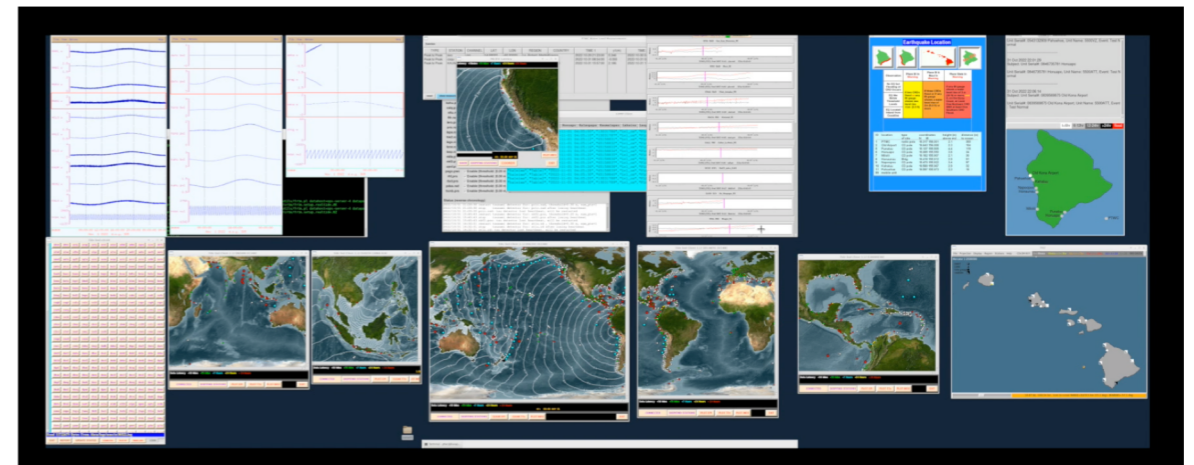
View/Download video:

<https://vimeo.com/776333796>

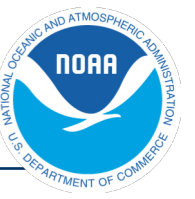
PTWC Operations – responding to earthquake alarm



- PTWC – 2 persons on duty 24x7 (1 working, 1 standby on-site)
- Respond to digital pager in 1 min (2 pagers for redundancy, addtl info)
- Activity:
Review automated solutions, determine threat, issue timely information (1st msg: local 3-5 min, distant 5-8 min)



Pacific Tsunami Warning Center Activities

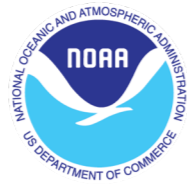


- **Rapidly detect and characterize potential tsunami sources**
 - Typical Sources are Large Earthquakes (seismic analyses – location, magnitude)
 - Non-Seismic Sources: Landslides, Volcanoes, Meteorological (harder)
- **Forecast tsunami arrival times and impacts**
 - Calculate 1st Wave Arrival Times (ETA) (TTT, Huygen's method)
 - Calculate Tsunami Amplitude (PTWC RIFT model using Earthquake CMT, hydrodynamic model)
- **Detect and monitor the tsunami**
 - Compare observations with forecasts. Revise forecast if necessary
 - Report observations to customers
 - Use PTWC Tide Tool – Real-time decode/display of coastal and deep-ocean gauges
Show Marigrams with ETA. Measure Tsunami Wave Amplitude
- **Issue Products to warn and inform partners and public**
 - Tsunami Information Statement, Threat Message (Initial, Supplement, Cancellation), Supplement
When:
 1. 1st Product Quickly - After preliminary earthquake evaluation
 2. Once a forecast is available
 3. When the tsunami is detected and measured
 4. Regularly as the tsunami propagates or the threat ends



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Thank You

For more information, contact ITIC
itic.tsunami@noaa.gov