ICG/CARIBE-EWS

presents

A Review of the Tsunami Warning and Mitigation Ocean Observations

Gaps, challenges, and priorities in tsunami risk, detection, warning and dissemination, awareness, and preparedness in the Caribbean and Adjacent Regions

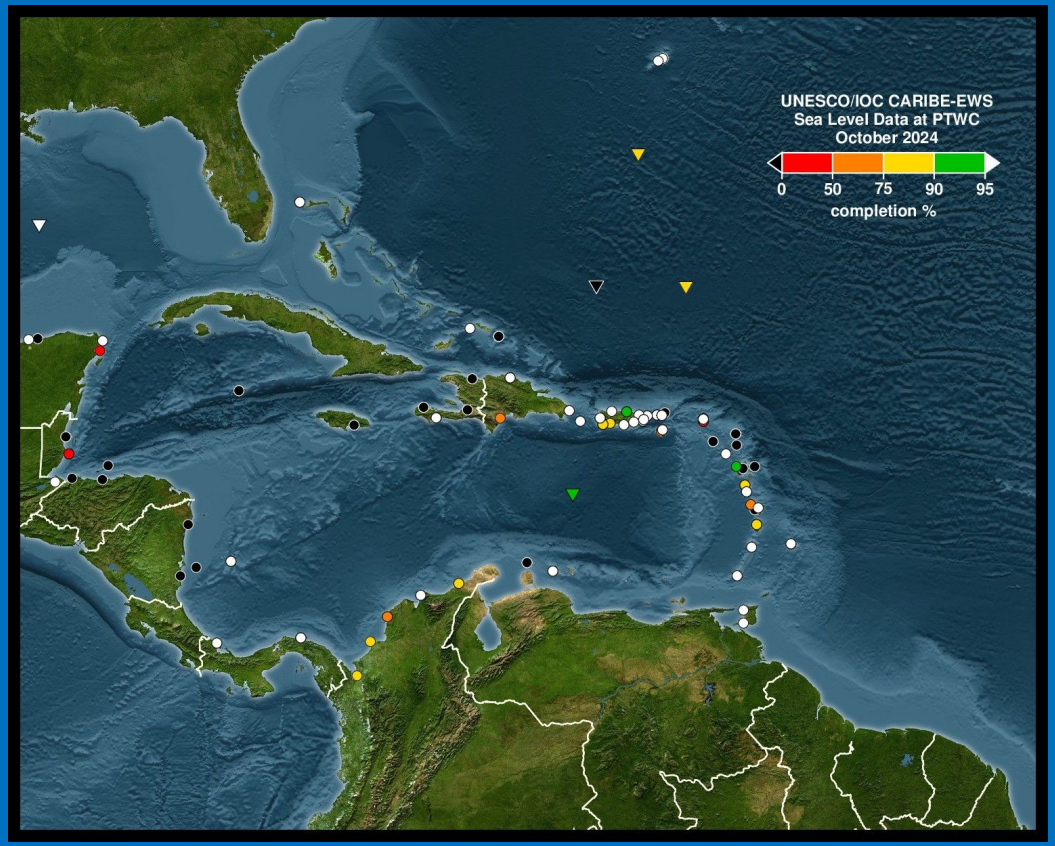
WG 2:Tsunami Detection, Analysis and Forecasting

Purpose of the WG: reviewing and recommending to the ICG priorities and actions required to ensure and enhance existing capabilities as well as explore new technologies to improve tsunami detection and forecasting capability.

Tasks:

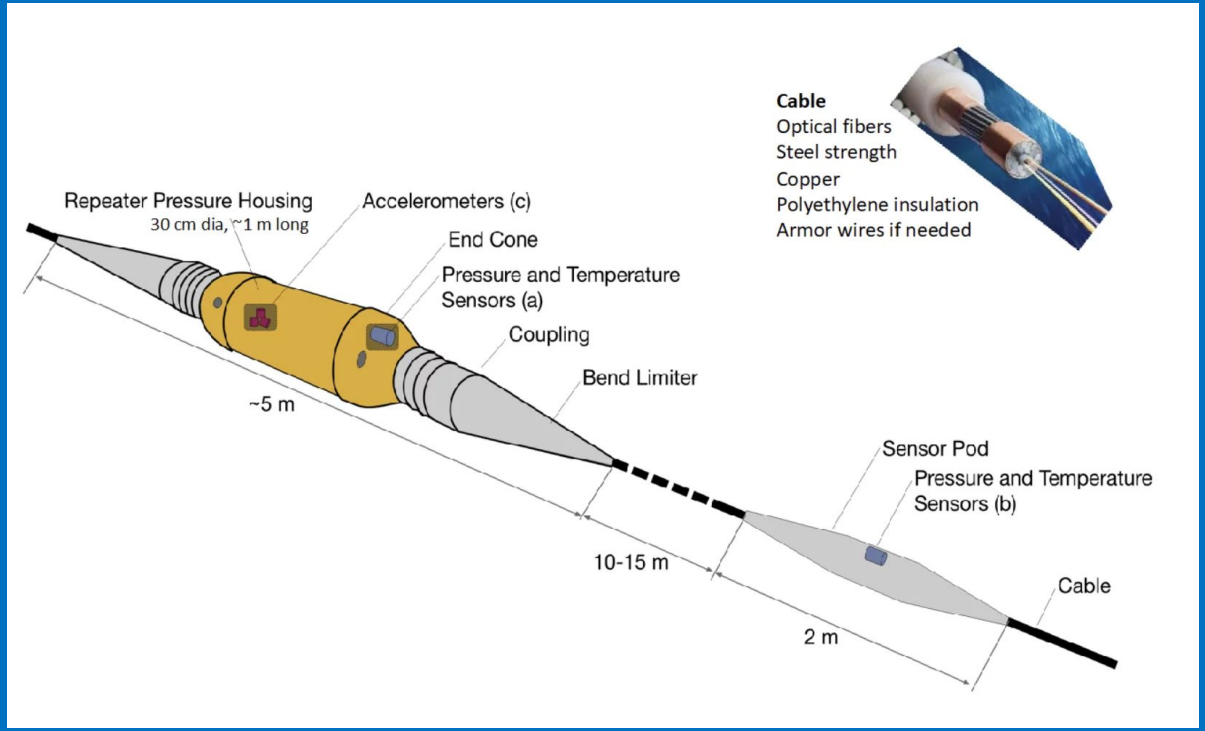
- Monitor the status of regional instrumentation and work to address gaps
  - Task: Quantitative analysis of performance impacts on detection
    - Seismic code written and available; sea level to be done
- Explore the use of new technologies:
  - Task: Consider idealized maps for the deployment of future smart cables
  - Task: Incorporate GNSS into monthly performance review
- Run a English Language Sea Level Workshop for the Caribe-EWS:
  - In Progress, Board organized to run meeting with a potential host in Puerto Rico partnered with the US Virgin Islands. Currently seeking funding for workshop support.

WG 2:Tsunami Detection, Analysis and Forecasting
Current Sea Level Instrument Status

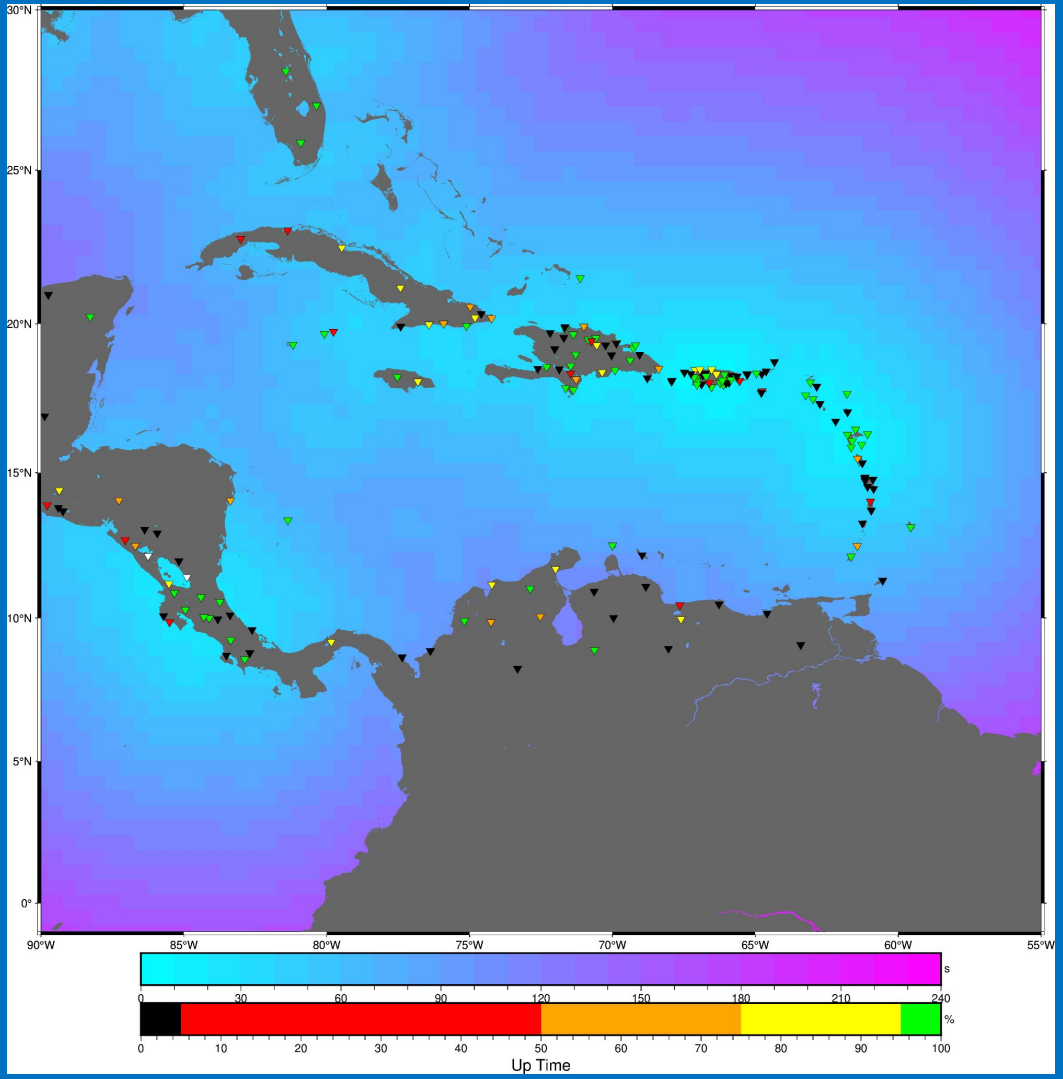


- Gap is the coverage in the western Caribbean due to maintenance issues.
- IOCaribe GOOS may have other stations to bolster coverage

WG 2:Tsunami Detection, Analysis and Forecasting
Smart Cables



- Smart cables provide an opportunity to expand near field observations of tsunami sources
- Requires large scale cooperation
- Would reduce detection time for events when combined with traditional seismic arrays
- Also capable of detecting non-seismic tsunami signals



WG 2:Seismic Station Status

Test version of possible new Seismic Monthly report with tsunami detection times:

-Station color is % up-time
-Stations with 95% or higher up-time (green) are considered live.

- Background grid is the seismic traveltime for a source to be detected at 4 live stations in seconds.

- Code is available upon request: contact elizabeth.vanacore@upr.edu