

Maritime Offshore/Response Guidance Work Group

Existing NOAA recommendation is for ships to go beyond the 100 fathom (600 ft) depth for safety offshore. 100 fathoms is sometimes too difficult/too far for ships to evacuate to.

Work Group overview: At the 2014 NTHMP Summer Meetings, NTHMP and US Coast Guard representatives agreed that a Work Group should be formed to address a number of maritime response issues. The thought was that NTHMP has tsunami modeling and evacuation expertise and USCG has maritime knowledge and responsibilities for tsunami response in ports and harbors...How can we best make recommendations/transfer information? Recommendations from the group could/should provide a basis for USCG to improve existing tsunami response planning and provide a foundation for consistency nationwide. Potential areas/questions to address:

Offshore minimum safe depth:

- Should there be set minimum depth(s) for offshore evacuation nationally, or state/territory-to-state/territory or USCG “Sectors”?
- How can feds/states/territories best work with USCG to develop consistent offshore depth?

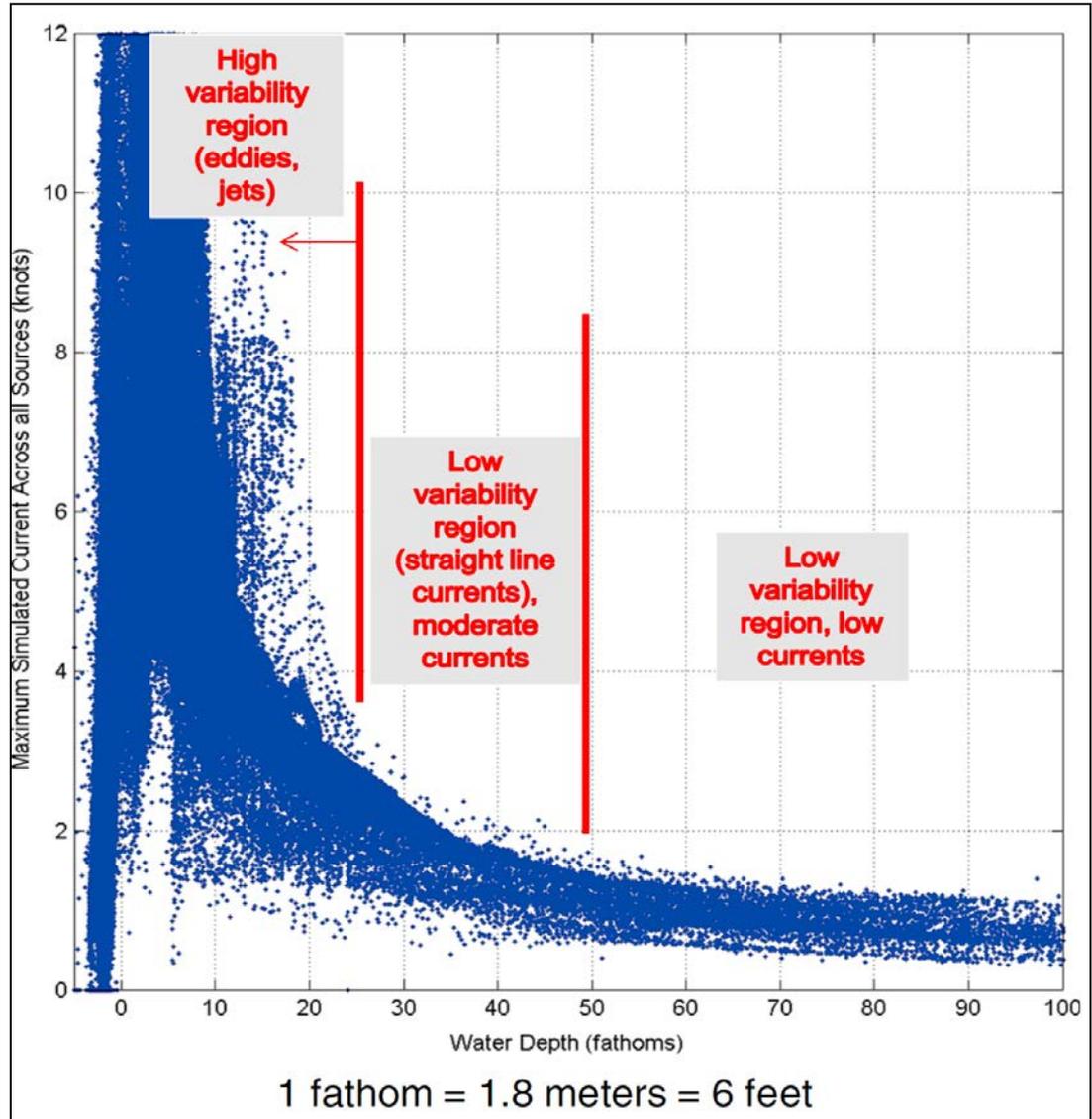
Response plans:

- Should response plan be developed?
- Should/Could in-harbor response plans like CA maritime playbooks be starting point for maritime tsunami response plans (to help answer “If” boats should be repositioned or go offshore)?
- Should this be a national or regional USCG planning issue?

Recovery plans: Should this be addressed by Work Group?

California

- Ran simulations for range of different distant and local sources at five locations (from Lynett and others, 2013)
- Plot the max current vs. depth for each source as scatter plot
- Determined current variability at all depths
- Currents above 3 knots (1.5 m/sec) are considered the threshold for potentially causing damage
- Depth where low variable, straight-line 2-3 knot currents occur beyond 25 fathoms
- State Steering Committee accepts 30 fathoms (180 feet) as MINIMUM safe depth for offshore evacuation

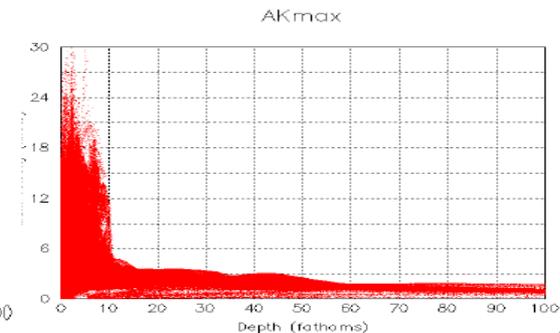
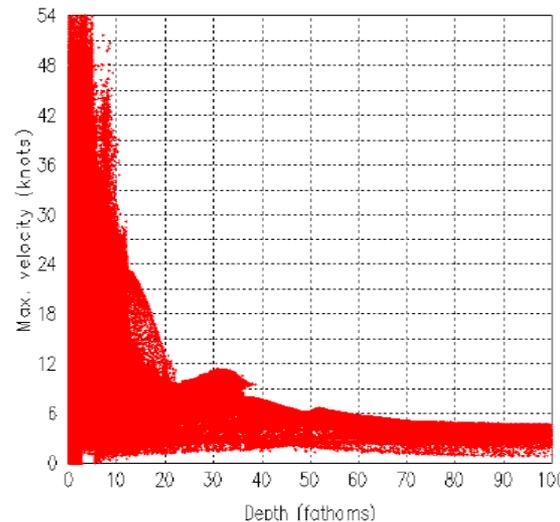
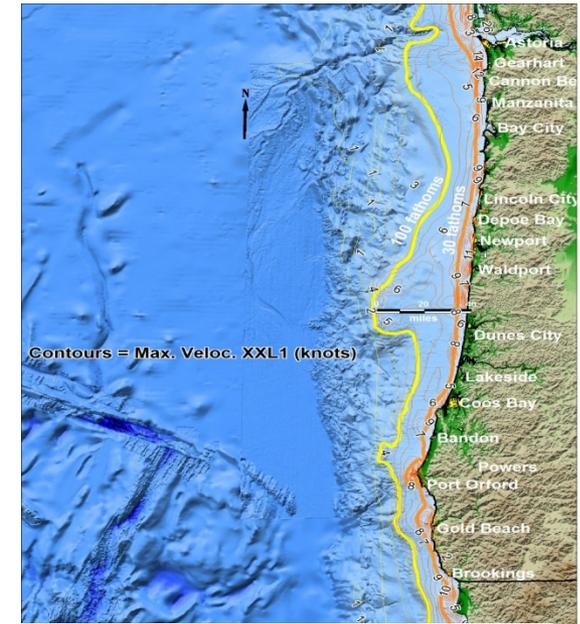


Oregon

- Ran simulations for maximum anticipated local (Cascadia) and distant (Alaska) scenarios
- Created velocity contour maps compared to offshore depth. Plot the max current vs. depth on scatter plot also.
- Local source: Depth where low variable, straight-line currents, 3 knot currents occur beyond 100 fathoms; severe and unpredictable wave action from storm/ambient conditions also a factor
- Distant source: Depth where low variable, straight-line currents, 3 knot currents occur beyond 30 fathoms
- State Maritime Advisory Council accepts 100 fathoms (600 feet) as MINIMUM safe depth for local sources; 30 fathoms for distant sources

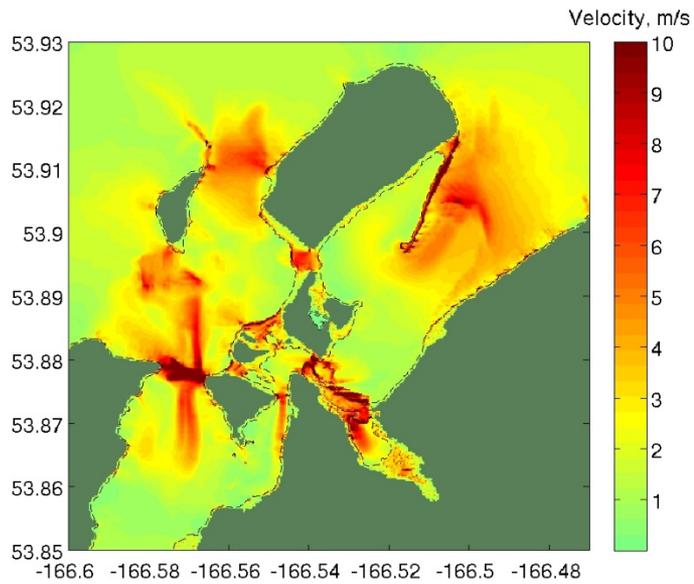


XXL1

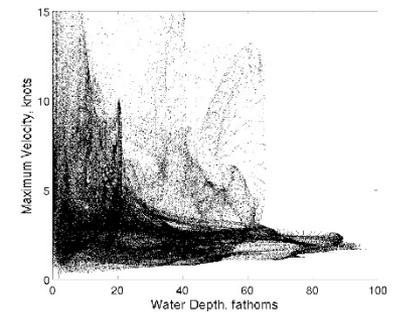
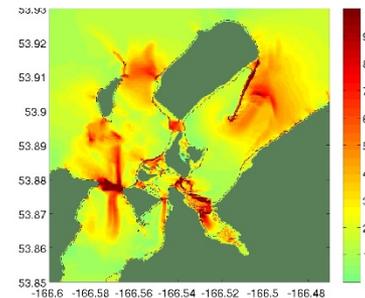
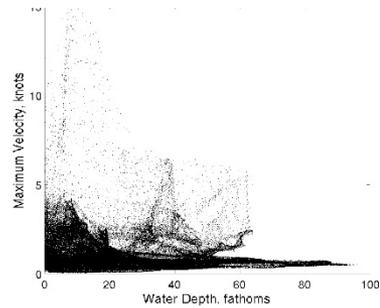
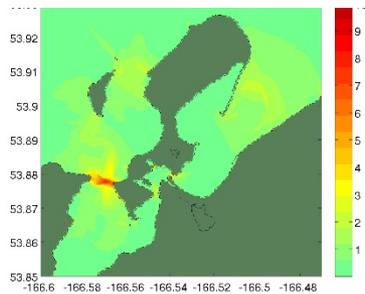
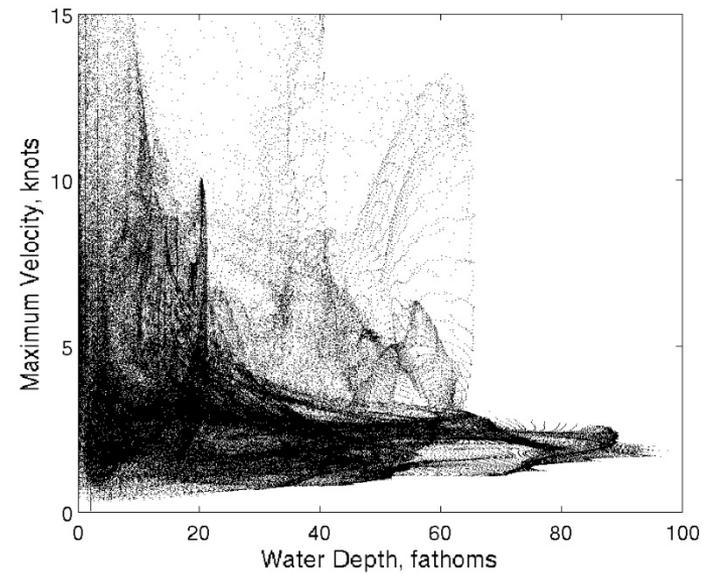


Alaska

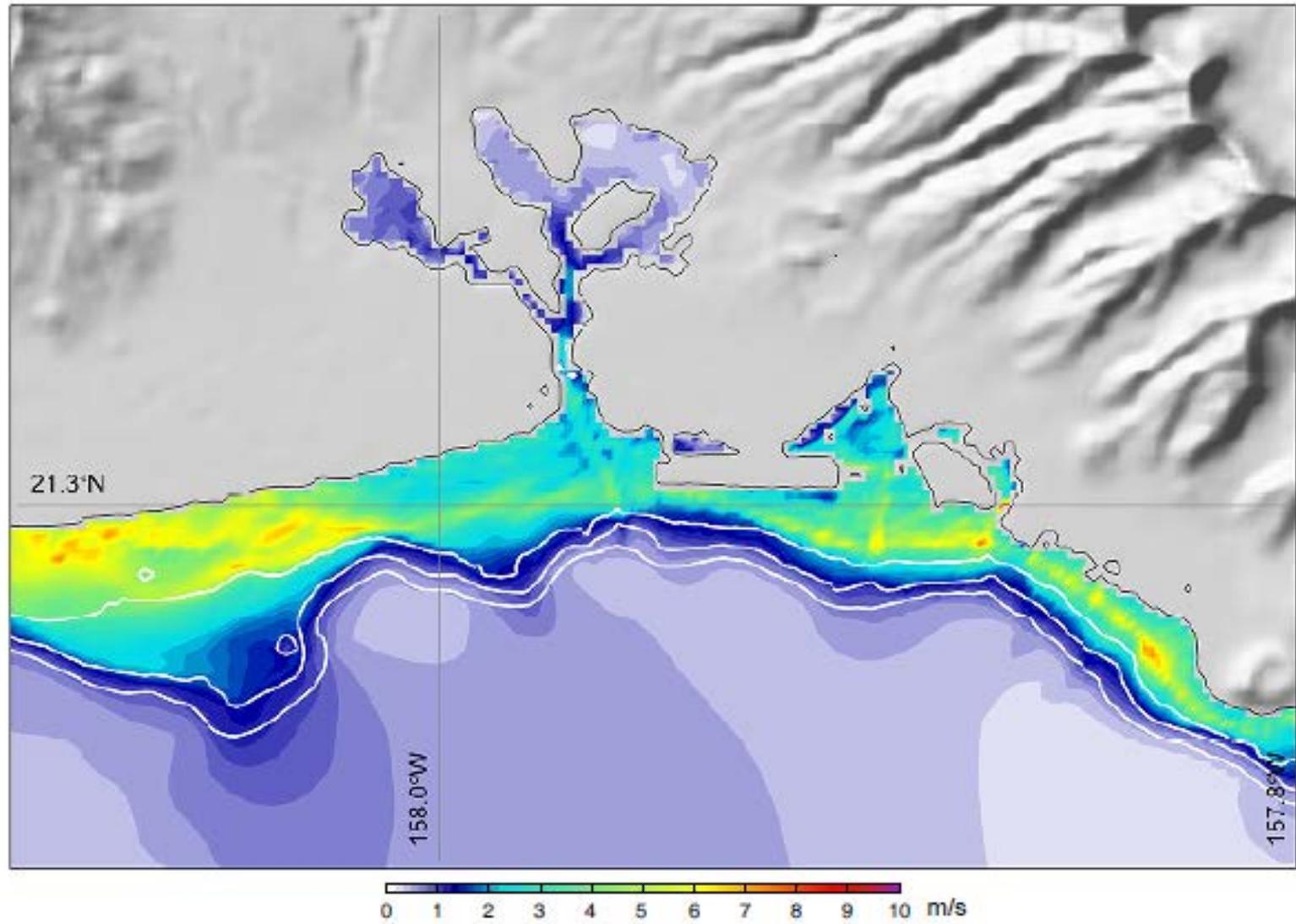
Distant Source



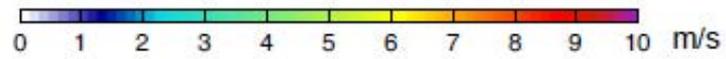
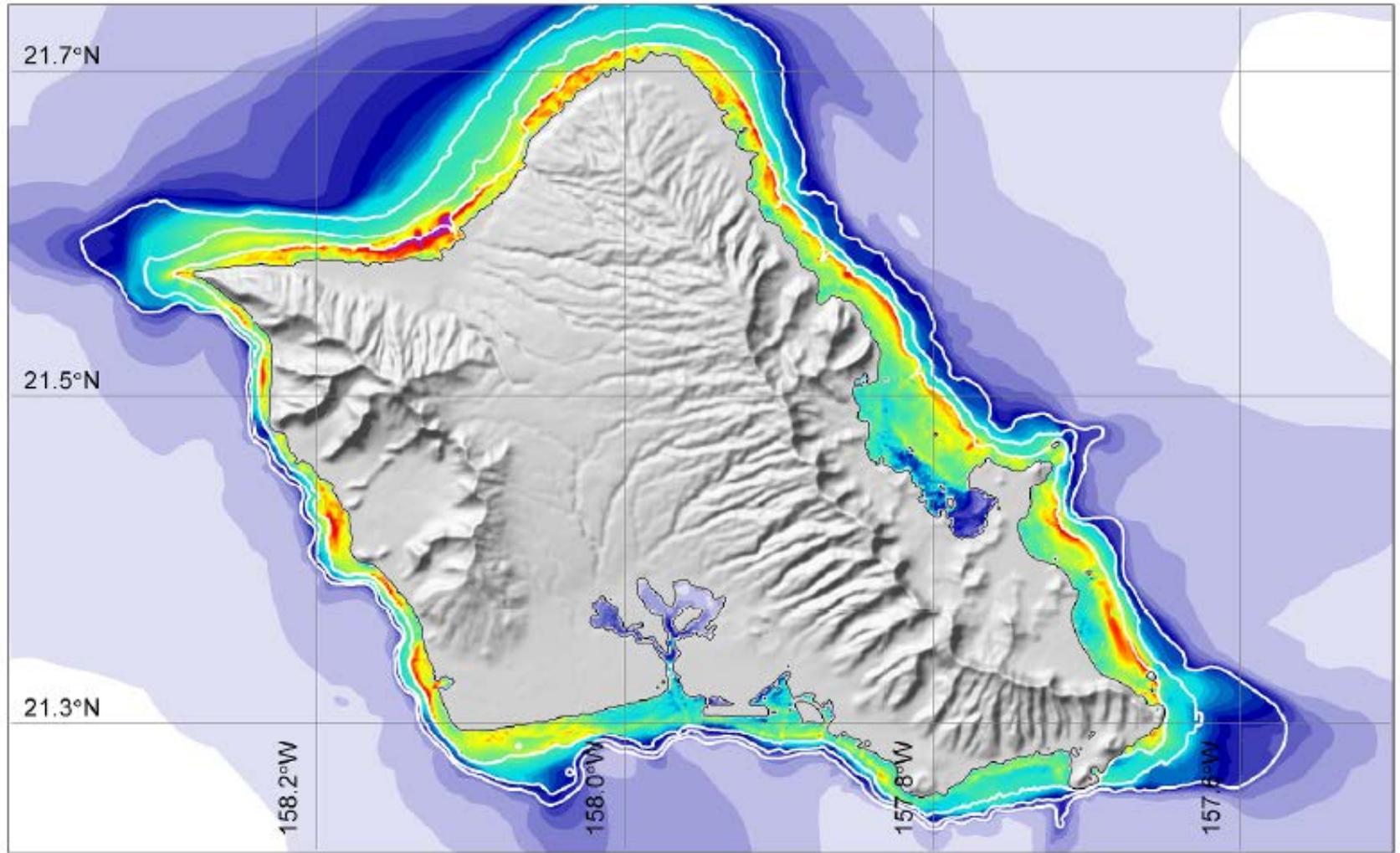
Local Source



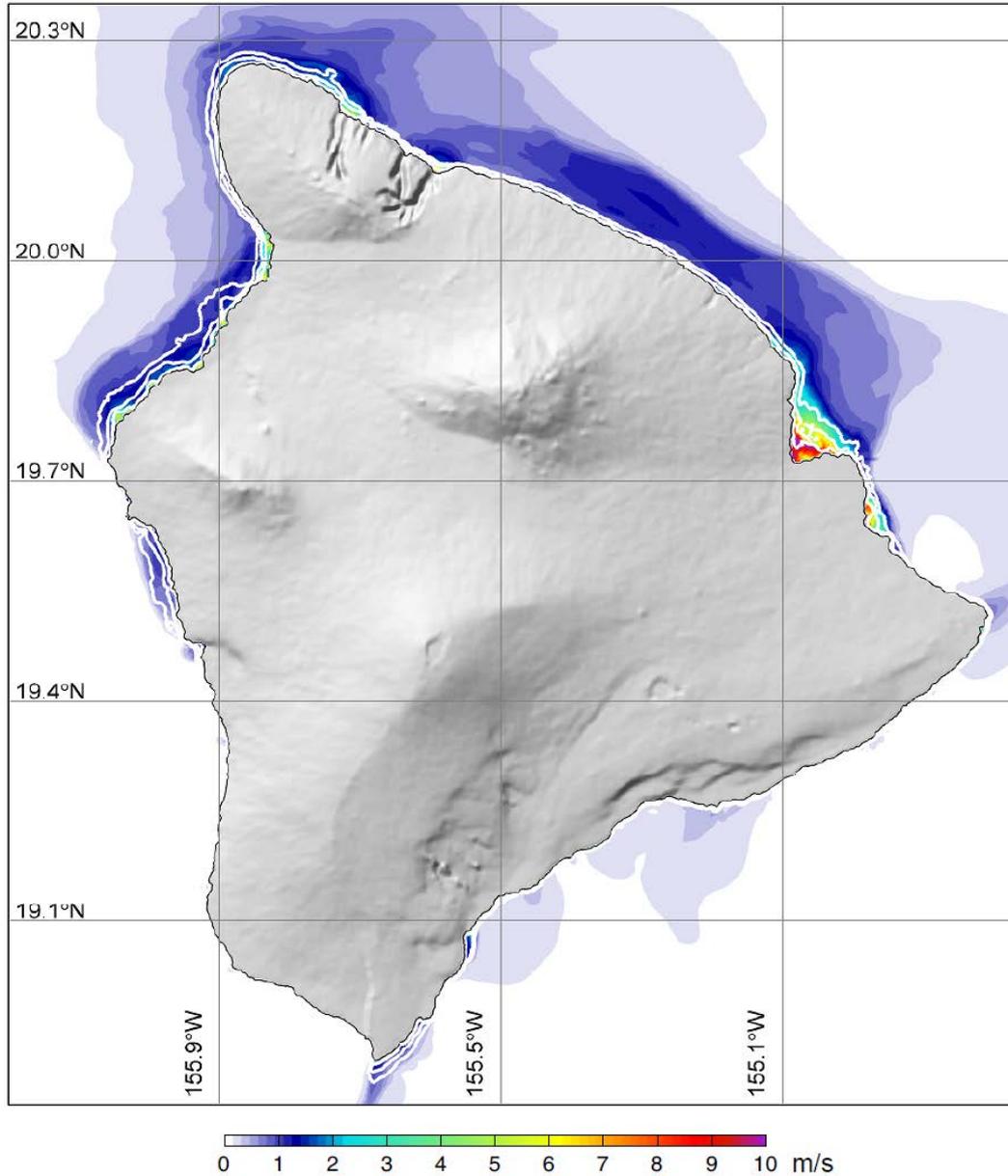
Hawaii



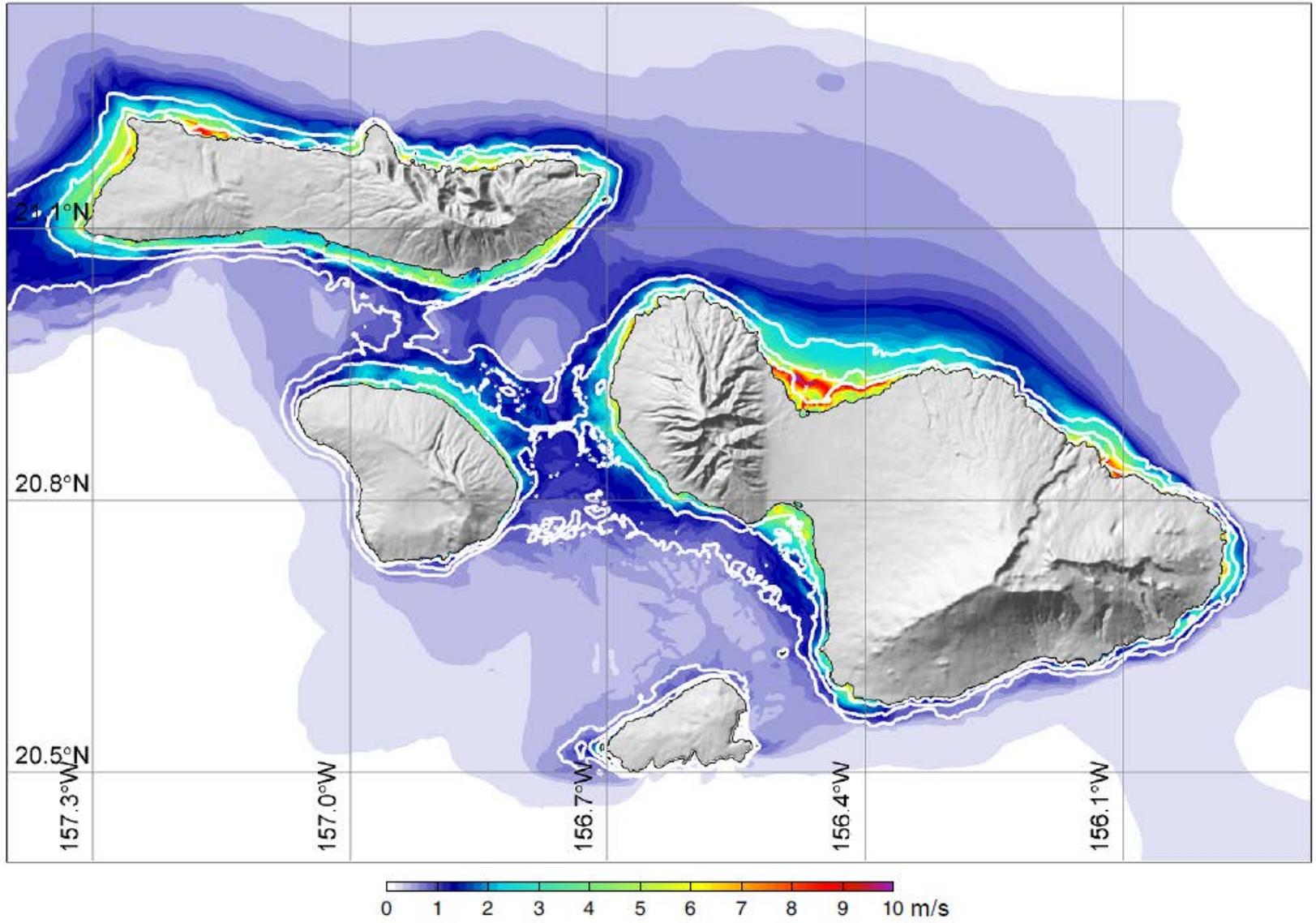
Hawaii



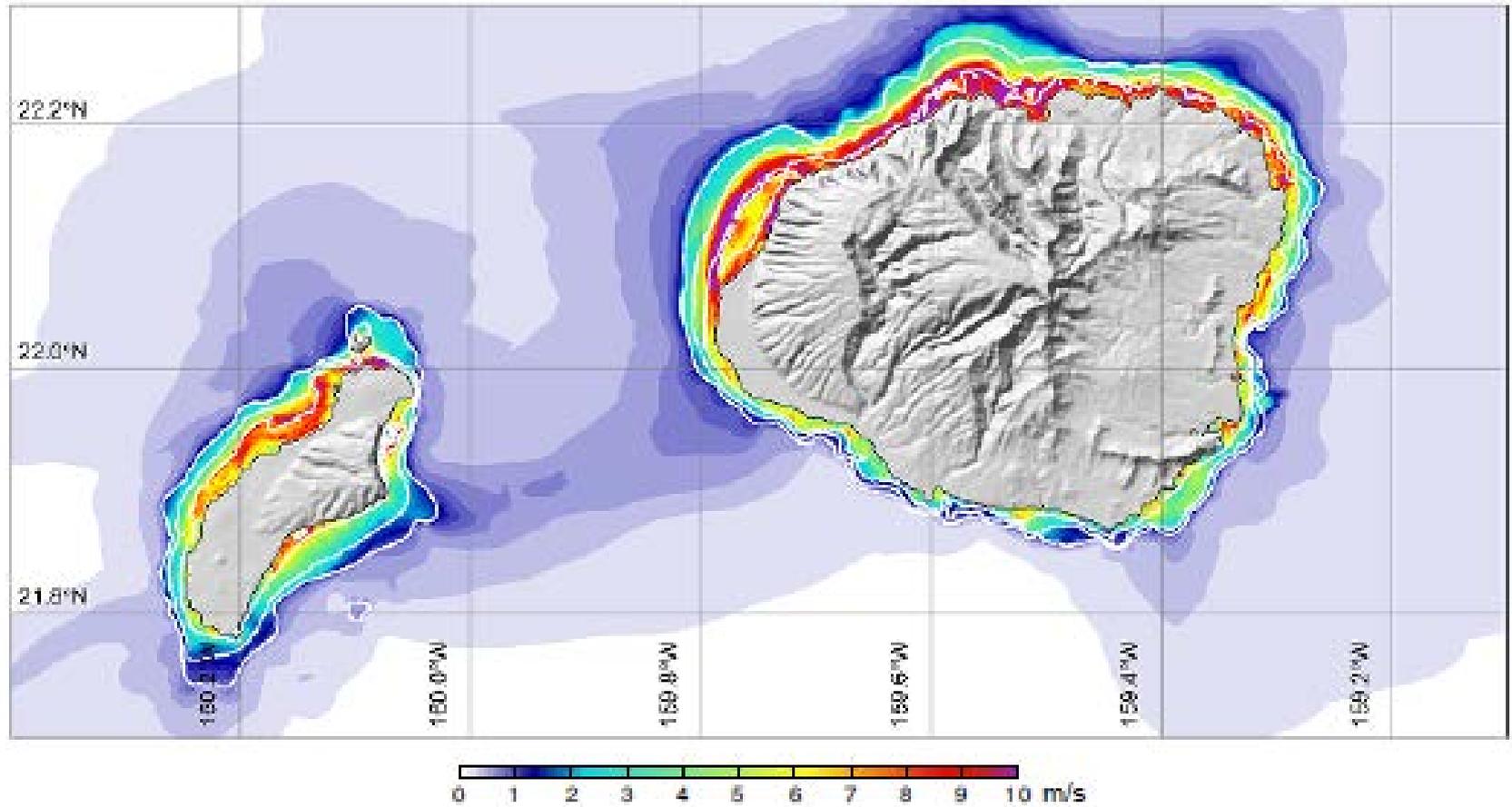
Hawaii



Hawaii

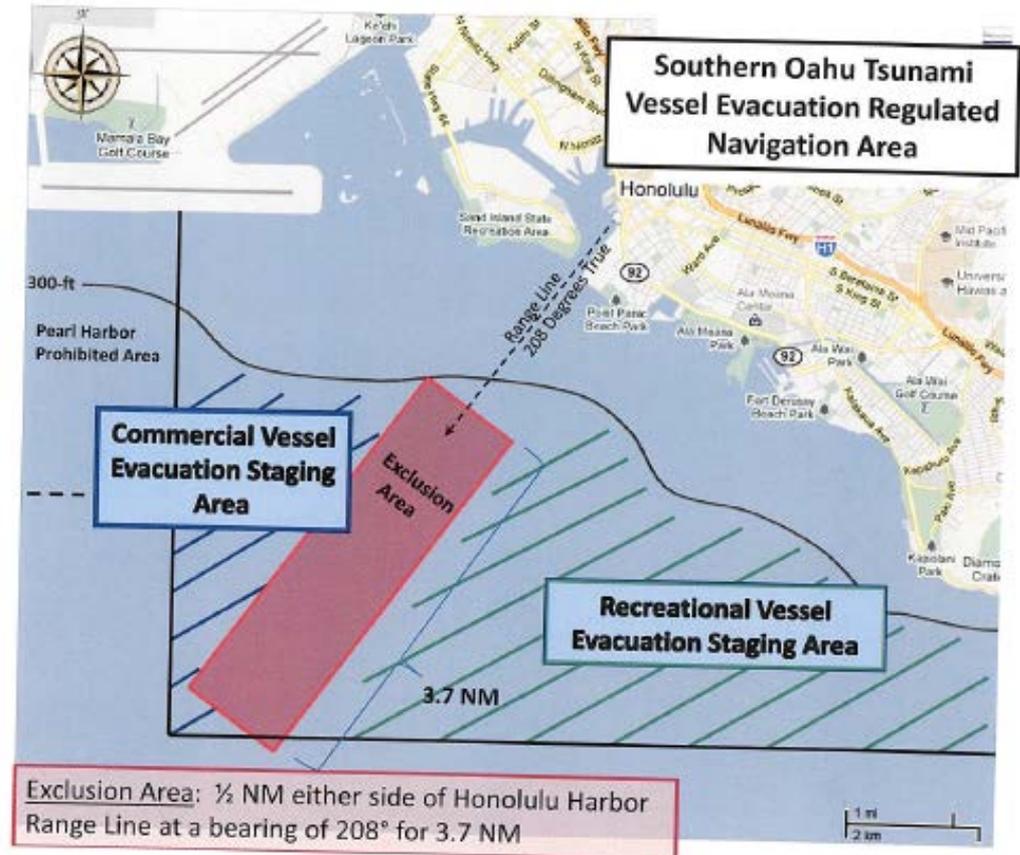


Hawaii



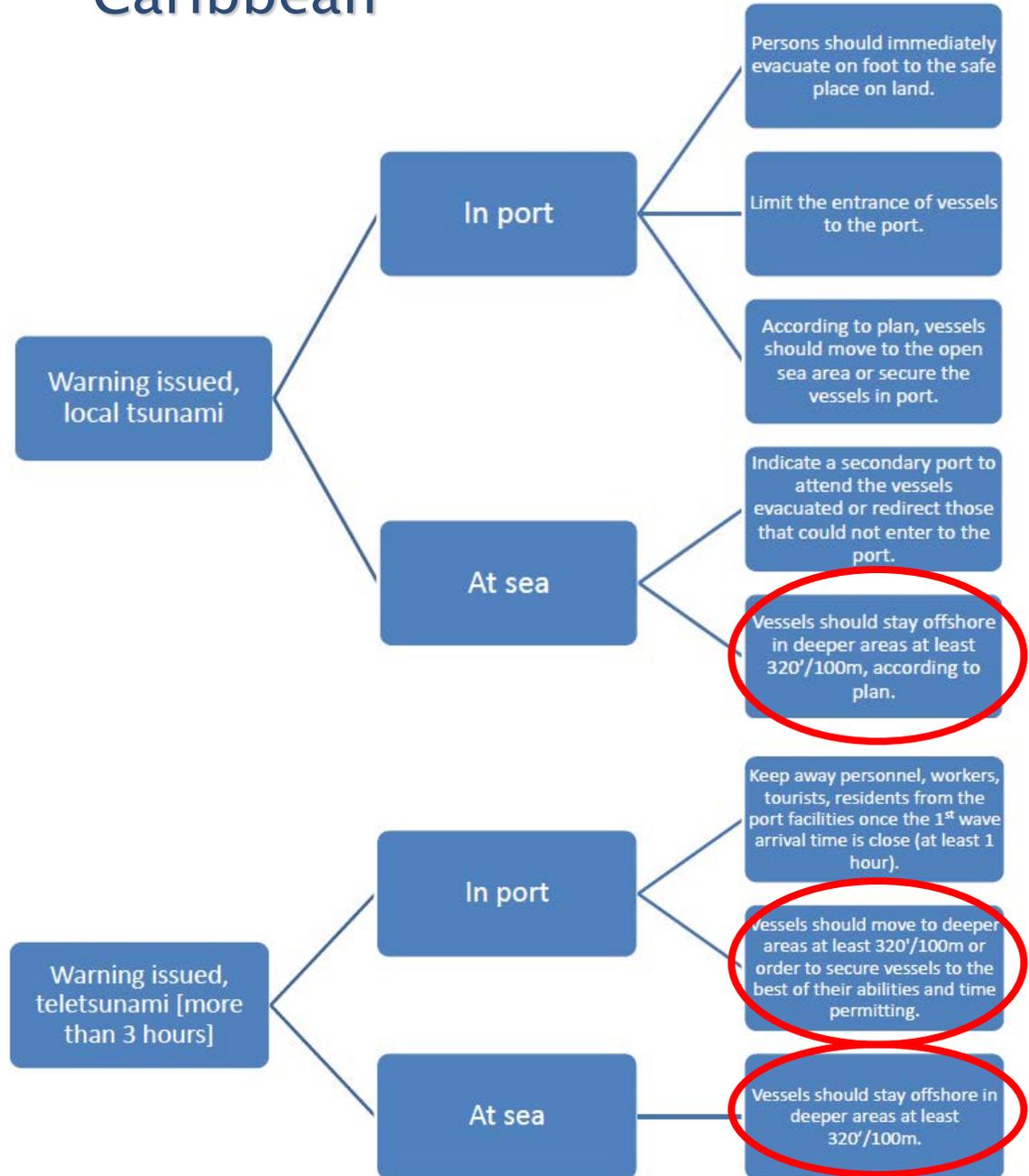
Hawaii

- The Coast Guard has set security zones (evacuation and exclusion zones) for Hawaii harbor approaches at the 50-fathom level.
- Not a great difference between 50 and 100 fathoms offshore.
- To view the Notice of Security Zone, visit www.regulations.gov, insert the text "USCG-2013-0021" in to the keyword box and click search.

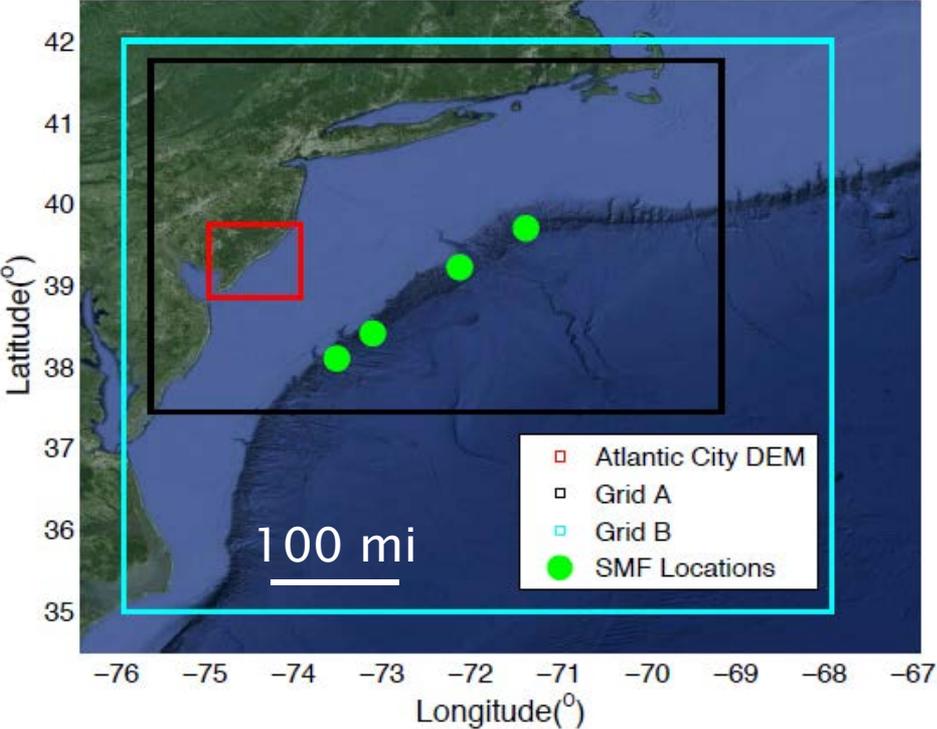
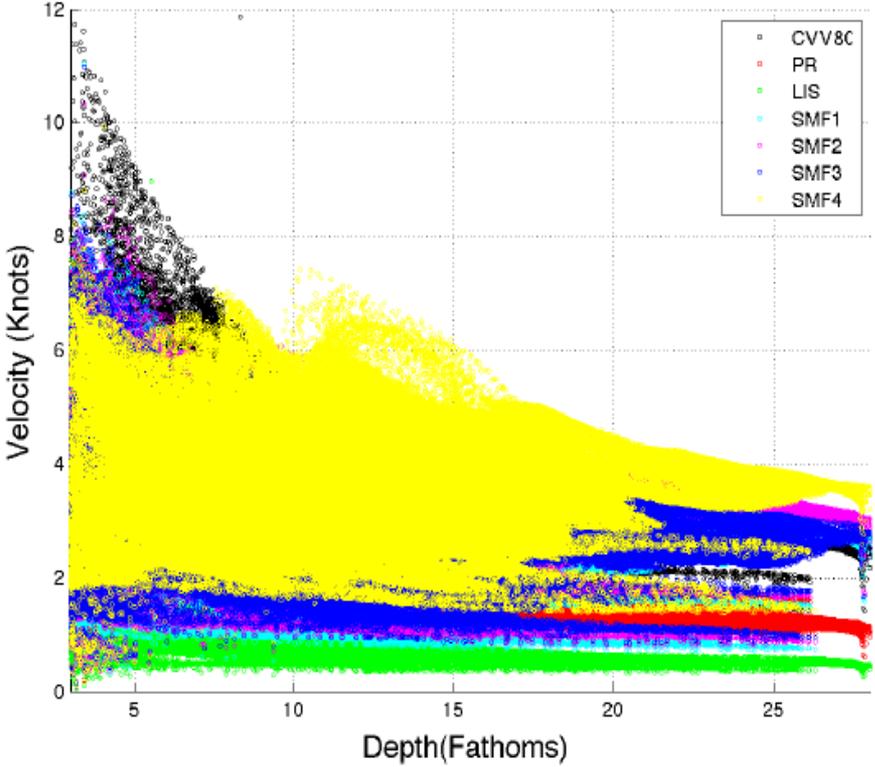


Caribbean

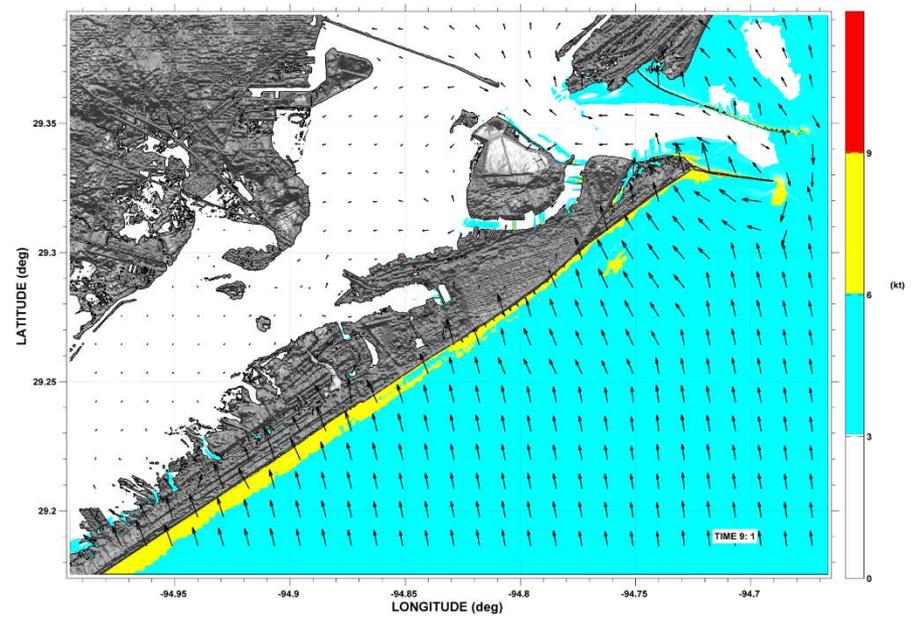
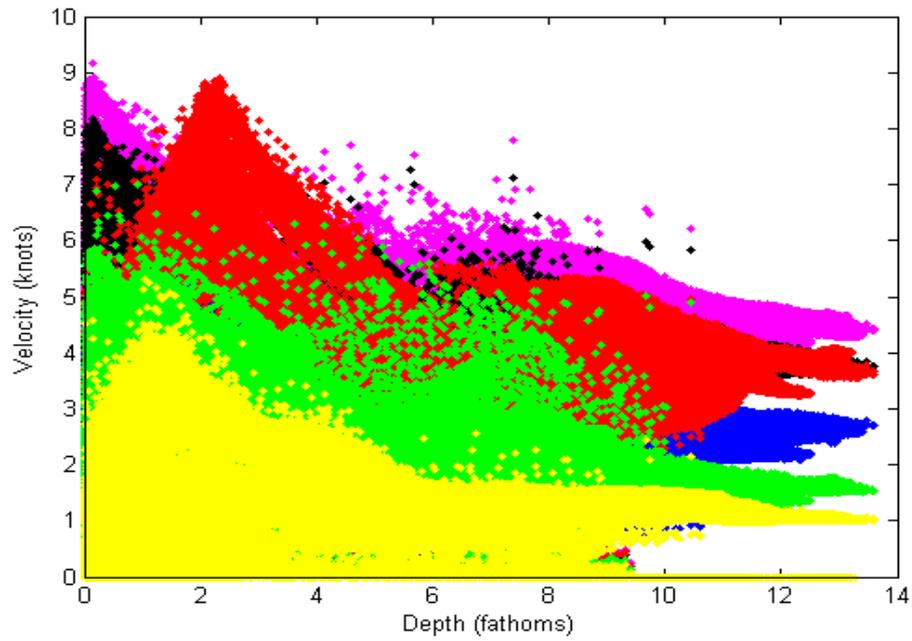
- From “Tsunami Guidelines Plan for Operators of Caribbean Ports” 2011
- Recommendations of about 50 fathoms for ships offshore during local event, and for ships going offshore during distant event.
- Face dilemma with cruise ships, which want to make independent decisions on evacuate during local and distant events. Stronger guidance needed to enforce consistent evacuation protocol.



East Coast



Gulf Coast



Recommendation Results for Minimum Offshore Depth (to date)

State/Territory	Distant Source (ships in harbor)	Local Source (ships at sea)	Notes
California	30 fathoms	100 fathoms	Evaluated; following Oregon recommendation for local source
Oregon	30 fathoms	100 fathoms	Evaluated
Hawaii	50 fathoms		Evaluated; implemented in Coast Guard plan in some locations
Alaska			Still evaluating
Washington			Still evaluating; forming state harbor advisory group
Caribbean	50 fathoms	50 fathoms	General recommendation
Gulf Coast			Still evaluating
East Coast			Still evaluating
American Samoa			Evaluating, guidance from others
Guam			Evaluating, guidance from others
CNMI			Evaluating, guidance from others