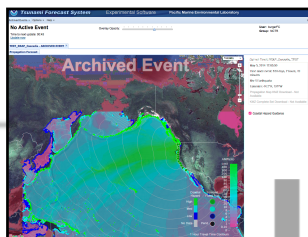
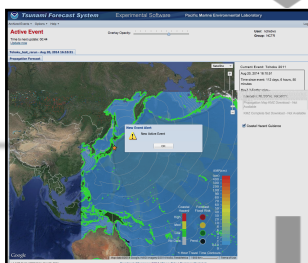


## Tweb Workflow

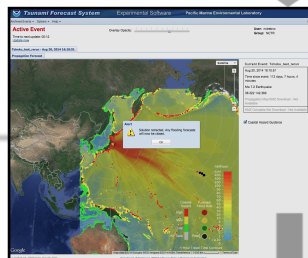
In the absence of an active event, Tweb provides access to past event results. An event of interest is selected from the list in a drop down menu named 'Archived Events'



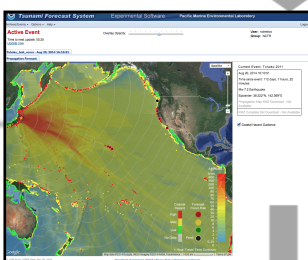
The forecaster shares initial model results to the View-Only client, which then loads them and prompts the user



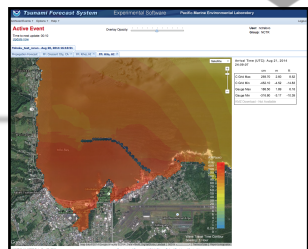
The View-Only client user is prompted when the forecaster changes the tsunami event forecast



The View-Only client provides basin-wide products for a tsunami event. Flooding forecast locations are colored by flooding risk



Double-clicking any of the flooding forecast locations will display the flooding forecast model grids in a separate tab. Wave arrival and amplitude information are also displayed



## References

Bernard, Eddie and Vasily Titov., 2015. Evolution of tsunami warning systems and products. Published 21 September 2015. DOI: 10.1098/rsta.2014.0371

Burger, Eugene, Linus Kamb, and Kara Gately, 2015. Tsunami event information dissemination through Tweb. American Geophysical Union. American Geophysical Union, Fall Meeting 2014, abstract #S21A-4405

Burger, E. F.; Kamb, L.; Pells, C.; Nakamura, (2013). T.A Web-Based and Cloud Capable Tsunami Forecast Tool: Tweb. American Geophysical Union, Fall Meeting 2013, abstract #NH43A-1730

Kamb, L.; Moore, C. W.; Burger, E. F. (2014). ComMIT and Tweb Integration: Global Tsunami Modeling Done Locally. American Geophysical Union, Fall Meeting 2014, abstract #S21A-4409

## Contact

For more information about Tweb, please visit website:

<http://nctr.pmel.noaa.gov/twebinfo/>

NOAA Center for Tsunami Research

[nctr.pmel.noaa.gov](http://nctr.pmel.noaa.gov)



# Tweb

## Web-based Tsunami Modeling Tool

Tool to Generate and View Forecasts in Support of Research and Operations

## Tweb Overview

Tweb is a web-based tsunami modeling tool used to generate, view, and share tsunami forecasts. Tweb was developed by the NOAA Center for Tsunami Research to provide tsunami researchers and forecasters with distributed and remote access to the same modeling and forecasting capabilities resident in NOAA's two Tsunami Warning Centers. In addition, Tweb serves as a testbed for potential forecasting, product display, and information dissemination methods and strategies.

Tweb offers:

- Modern interface
- User authentication for product confidentiality
- Tiered access for researchers and forecasters
- Group access
- Results sharing
- Accessibility with no browser plug-in required
- Test-bed platform to evaluate new capabilities
- Multi-language support

Tweb has one programmatic interface and two user clients; FORECAST and VIEW-ONLY.

## Forecast Client

Allows tsunami researchers and forecasters to create event scenarios of interest, run basin-wide propagation and inundation (flooding) models, and generate flooding maps and tsunami wave amplitude time series.

## View-Only Client

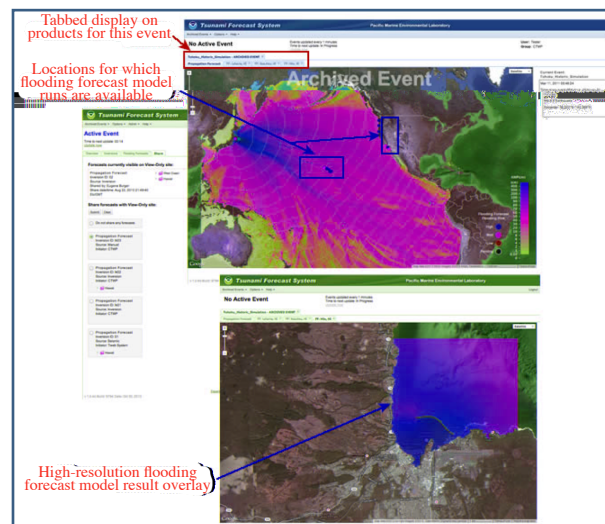
Serves to disseminate information.

Users are provided with:

- Wavefront propagation forecast
- Travel-time contours
- Wavefront location (active event only)
- Coastal hazard guidance
- Event source location, time, and magnitude
- Flooding forecast (3 nested grids)
- Wave arrival time

## View-Only Client

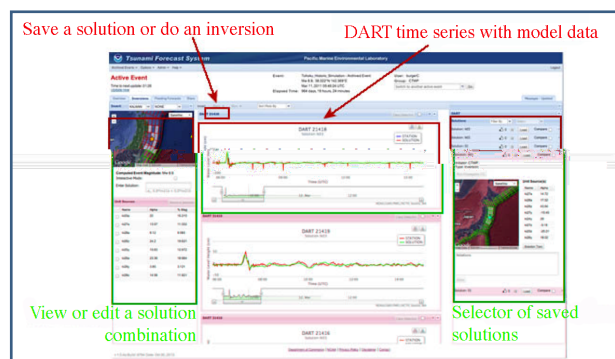
The View-Only client is the event information sharing part of Tweb, and presents a range of graphical event information in a clean interface. Only authenticated access is available to Tweb. Users can view information for active or historic events.



View-only users are able to view the tsunami event energy map, with wave arrival times, and see the wavefront location.

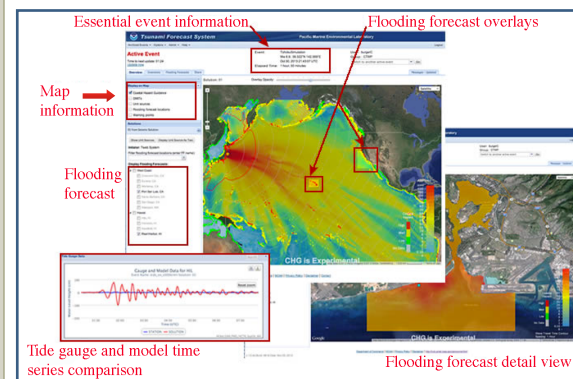
## Event Solution Selection

View-Only users will see only the event solution that a forecast user has shared with them. The forecast user selects a solution to share using the 'Share' tab in the forecaster client. Once shared, a solution becomes visible on the View-Only client. As an event unfolds, 'Share' functionality allows a forecast user to swap a visible solution with a new solution, or to retract a forecast by 'unsharing' it.

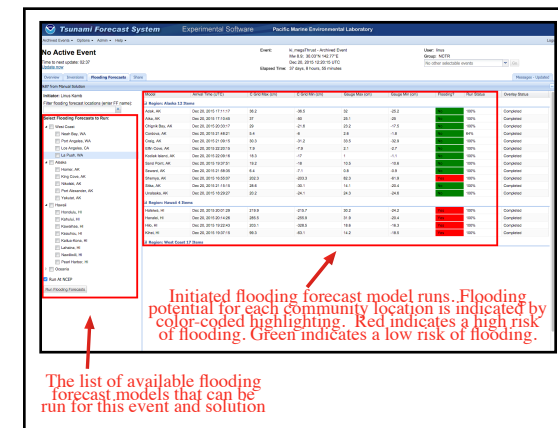


## Forecast Client

Flooding forecasts can be run for locations for which models have been developed. Designated forecast users can also publish information and results from a particular model run to share with their pre-defined View-Only group of users.



Flooding forecasts are displayed graphically in a separate tab when selected in the View-Only client. Forecast estimates at specific C-grid coastal points as well as simulated tsunami time series are also generated and shared.



Forecasters run high-resolution models from the Flooding Forecast tab. A tabular presentation shows which models have been run and provides estimates of maximum and minimum wave heights, wave arrival times, and a color-coded representation of whether flooding is expected.