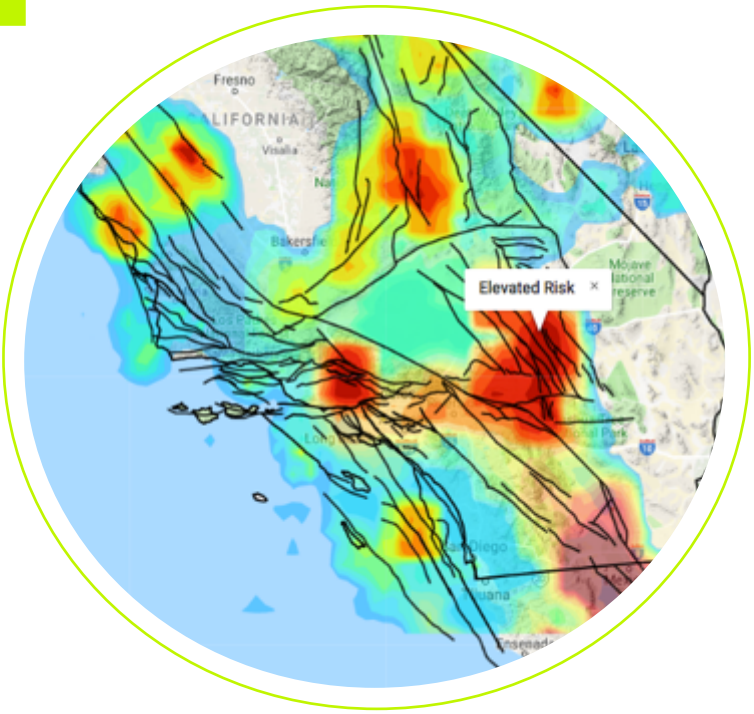
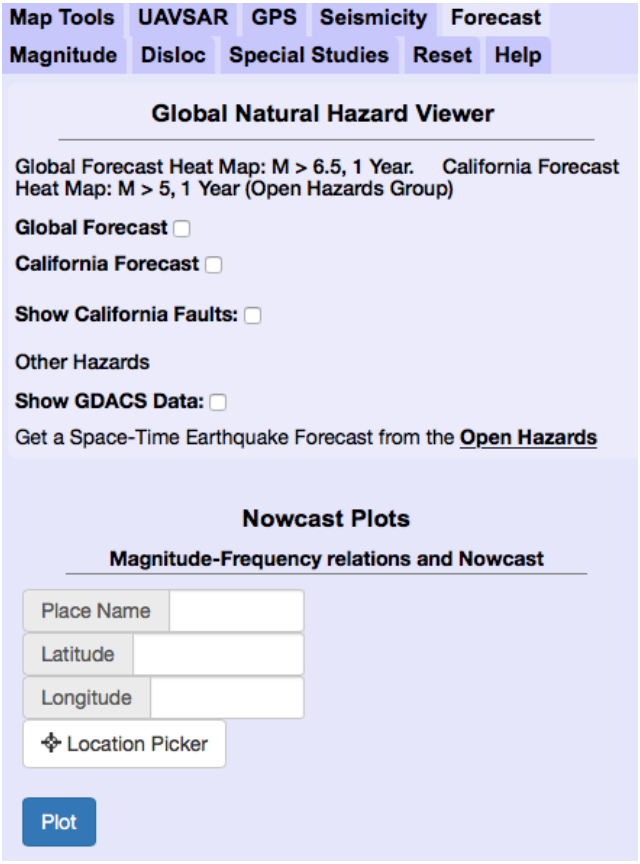
Forecast

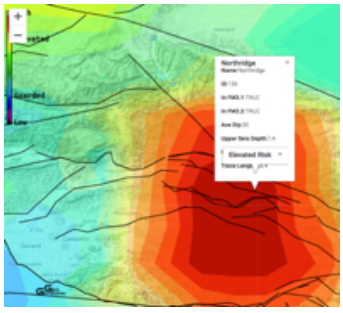
The Forecast tab allows users to select earthquake forecasts from the Open Hazards Group, and display them in a "Forecast Heat Map" format which uses warm colors to identify areas with elevated risk.



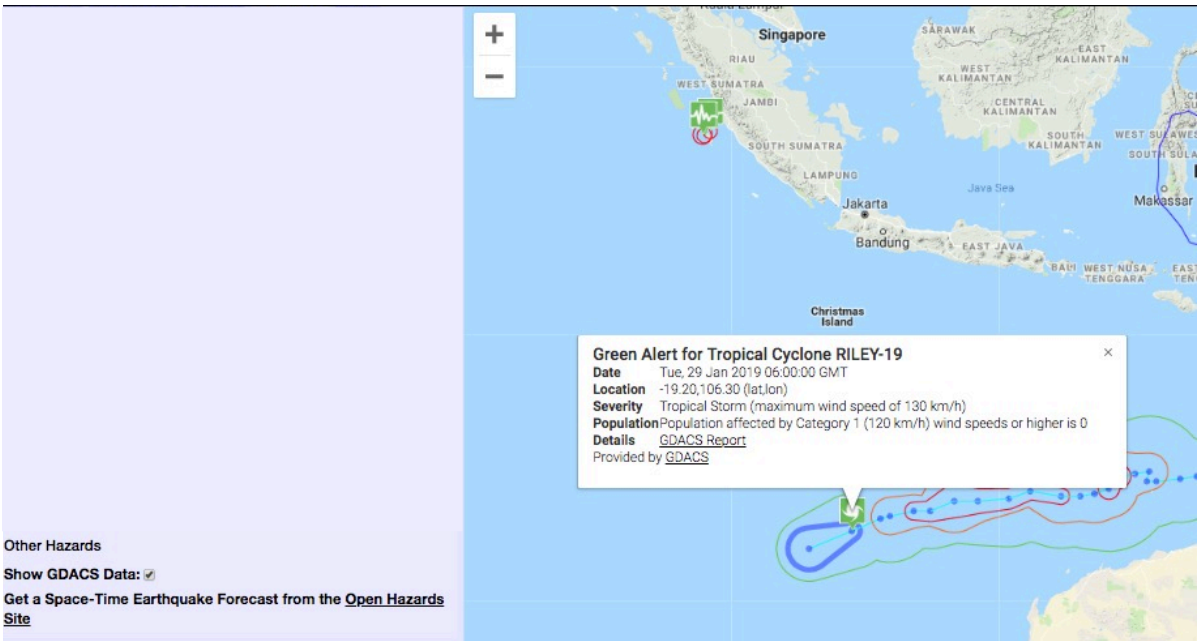


The Global Forecast option allows for a selection of either a Global Forecast Heat Map (M > 6.5, 1 Year) or a California Forecast Heat Map (M>5, 1 Year) as shown in the image above.

Global Forecast Heat Map



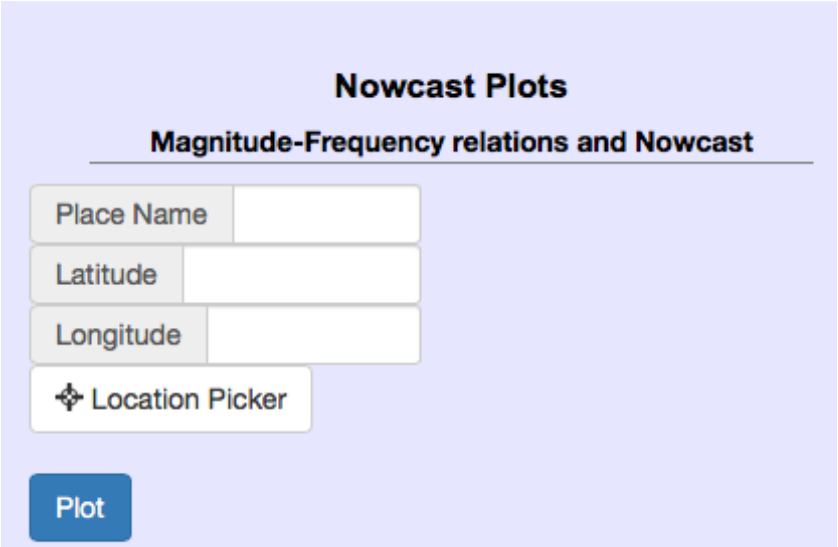
California Forecast Heat Map



Other Hazards through the Global Disaster Alerting Coordination System (GDACS) data can be selected. For example, the image above shows a Green Alert for a Tropical Cyclone.

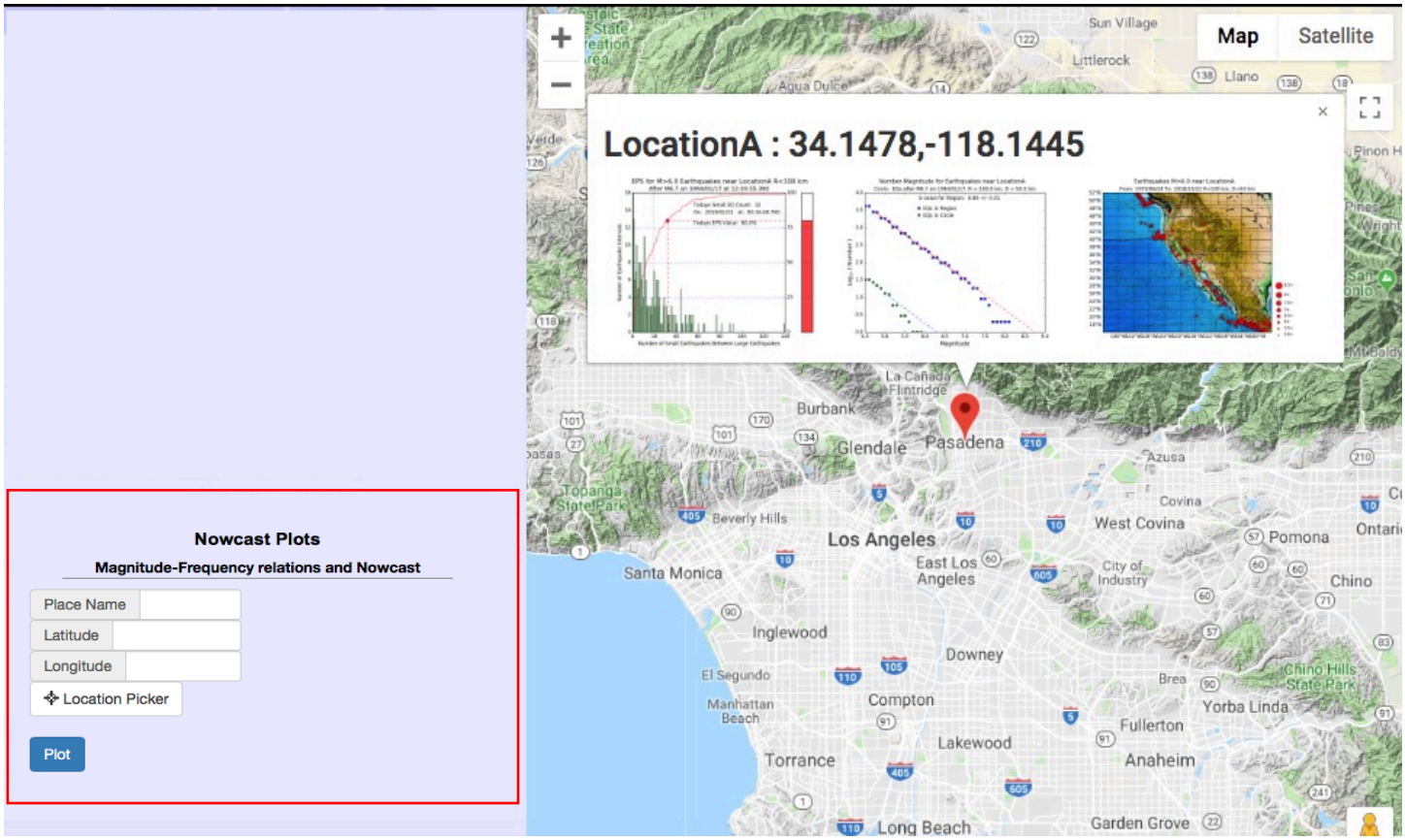
For Space-Time Earthquake Forecast Data, click on the Open Hazards Site below the GDACS Data, found on https://www.openhazards.com/viewer.

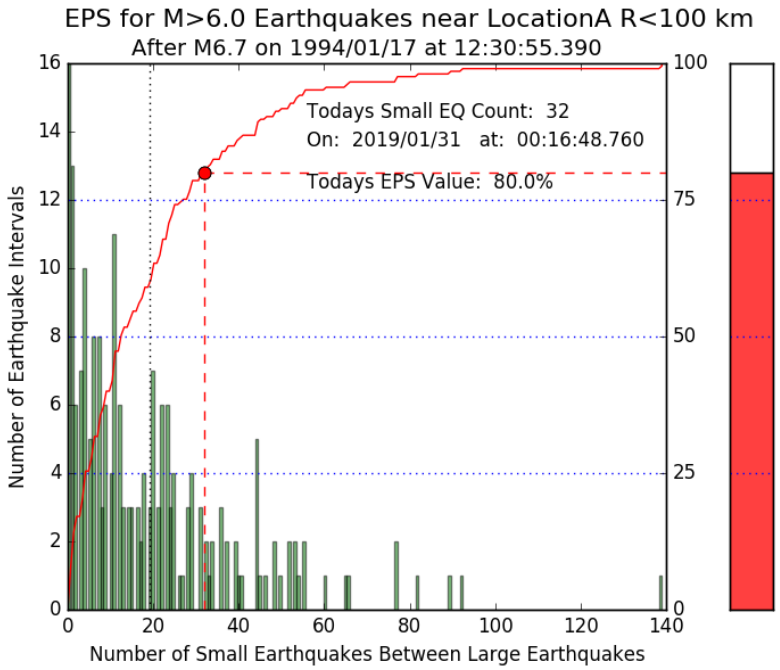
Below the Global Natural Hazard Viewer is the "Nowcast Plots" generator.



Here, users may create plots by naming a location and inputting a latitude and longitude, either manually or by using the location picker to choose a location.

When finished inputting data, press “plot” which will show different figures associated with the chosen location.





The Earthquake Potential Score (EPS) data for the chosen location, in this case "LocationA" can be viewed.

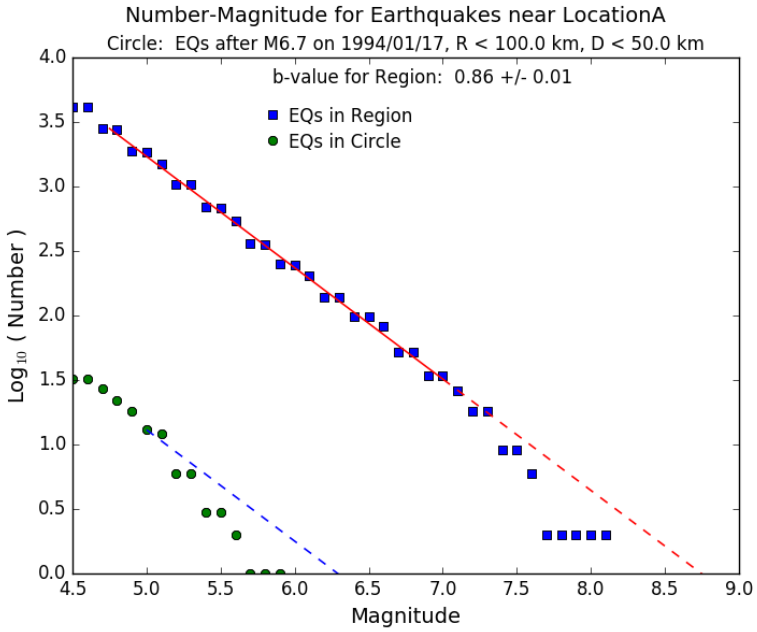
$$EPS = P\{n \leq n(t)\}$$

P = Cumulative Distribution Function (CDF) of small earthquakes occurring between large earthquakes

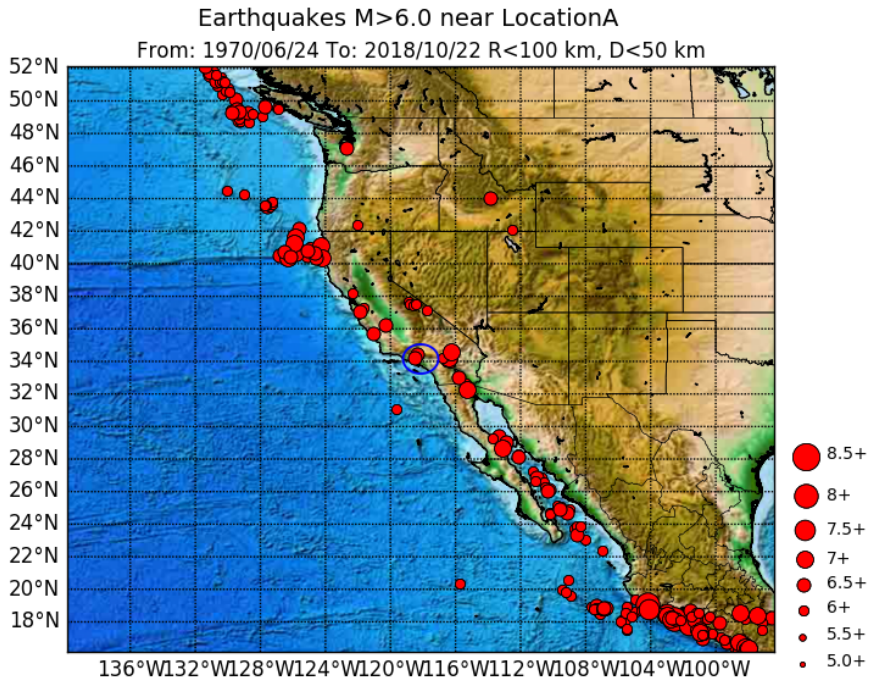
n(t) = the number of small earthquakes since the last large earthquake
n =small earthquakes since the last large earthquake.

EPS values for the figure on the left column portray magnitudes greater than Mλ = 6, 100 km within the specified region
The figure portrays that the small earthquakes count for today is 45 and the EPS Value is 89.30%.

The figure to the right of the EPS data displays "Number-Magnitude" statistics. The blue squares represent all the earthquakes ≥ 3 and the lower green circles show earthquakes 3 ≤ X < 6.5.



The last figure located on the far right displays a map of earthquakes with a magnitude ≥ 6.0 near San Bernardino as of 1970. The blue circle centered on San Bernardino has a radius equal to 100 km.



To analyze another location, click on the reset tool in the “Reset” tab.