3/6/2020 ShakeMap

U.S. Geological Survey - Earthquake Hazards Program

# **ShakeMap**

ShakeMap is a product of the USGS Earthquake Hazards Program in conjunction with the regional seismic networks. ShakeMaps provide near-real-time maps of ground motion and shaking intensity following significant earthquakes. These maps are used by federal, state, and local organizations, both public and private, for post-earthquake response and recovery, public and scientific information, as well as for preparedness exercises and disaster planning.

## **Search ShakeMap Archives**



Search for events with ShakeMaps. The Search form link from here is already configured to return only events with ShakeMap products. You enter additional search parameters. The default time window is the past 30 days.

### **Atlas**



The Atlas of ShakeMaps (~6200 events, ~1960-2016) provides a consistent and quantitative description of the distribution of shaking intensity for calibrating global earthquake loss estimation

methodologies used in PAGER.

### **Scenarios**



Earthquake Scenarios describe the expected ground motions and effects of specific hypothetical large earthquakes.

## **ShakeMap Manual**



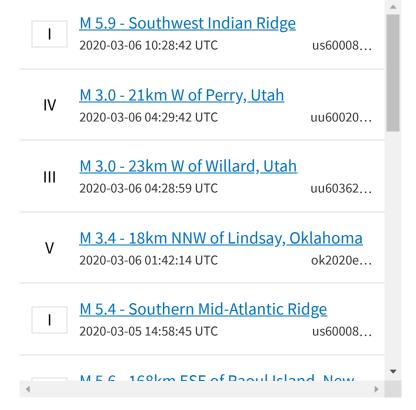
USGS Publication - technical manual, user's guide, and software guide.

## ShakeCast



An application for automating ShakeMap delivery to critical users and for facilitating notification of shaking levels at user-selected facilities.

### ShakeMaps, Past 7 Days



#### **Real-time Feeds**

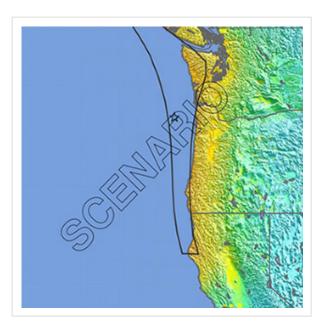
By Network (Past 30 Days)



- Southern California
- Northern California
- Pacific Northwest
- Nevada
- Utah
- <u>Hawaii</u>
- Alaska
- New Madrid
- Global/NEIC

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# **Earthquake Scenarios**



Scenario for Cascadia Rising Exercise

A scenario represents one realization of a potential future earthquake by assuming a particular magnitude, location, and fault-rupture geometry and estimating shaking using a variety of strategies.

In planning and coordinating emergency response, utilities, local government, and other organizations are best served by conducting training exercises based on realistic earthquake situations—ones similar to those they are most likely to face. ShakeMap Scenario earthquakes can fill this role. They can also be used to examine exposure of structures, lifelines, utilities, and transportation corridors to specified potential earthquakes.

A ShakeMap earthquake scenario is a predictive ShakeMap with an assumed magnitude and location, and, optionally, specified fault geometry.

## **Scenario Catalogs**



Map and list of scenarios determined using the <u>2014</u> <u>National Seismic Hazard fault database</u>.

## **Related Scenarios and Exercises**



Related scenario efforts include ongoing and past ShakeOut exercises, drills, and 3-D simulations.

# **ShakeMap Scenario Documentation**

(links to ShakeMap Manual section 3.3.3)

- Generating Earthquake Scenarios
- <u>Standardizing Earthquake Scenarios</u>