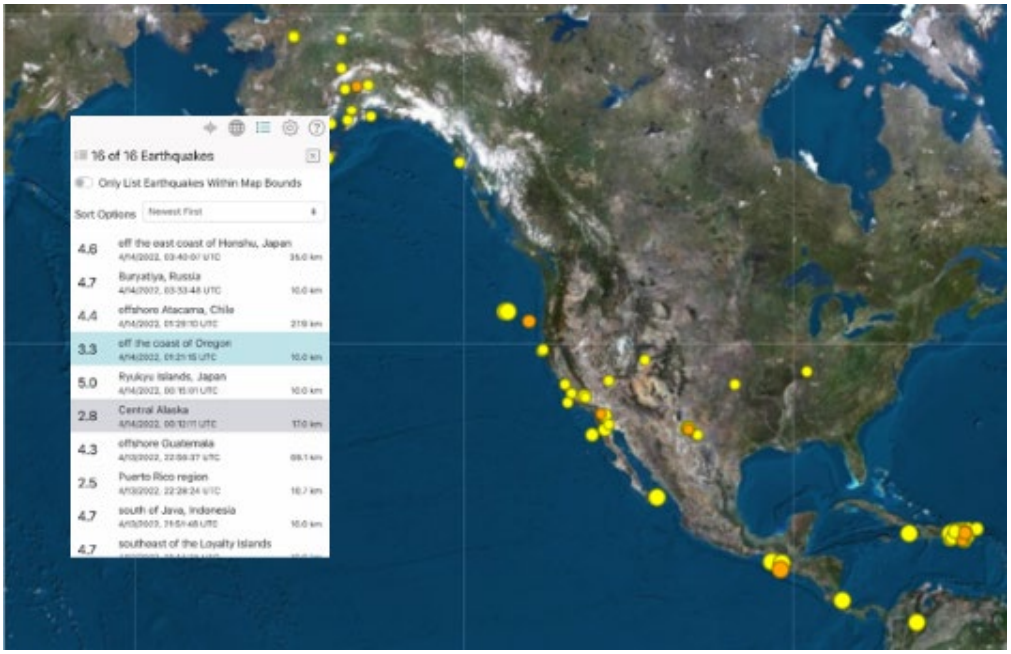
California Integrated Seismic Network (CISN) Display Web User Guide



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for

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California Department of Conservation

Cal OES GOVERNOR'S OFFICE OF EMERGENCY SERVICES

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1 INTRODUCTION

The California Integrated Seismic Network (CISN) Display Web is an earthquake notification application for viewing vital earthquake hazards information. Its responsive design helps ensure an optimal experience by adapting to your screen size, whether mobile, tablet, or desktop (Figure 1, Figure 2, and Figure 3, respectively).

Figure 1. CISN Display Web on a Mobile Phone

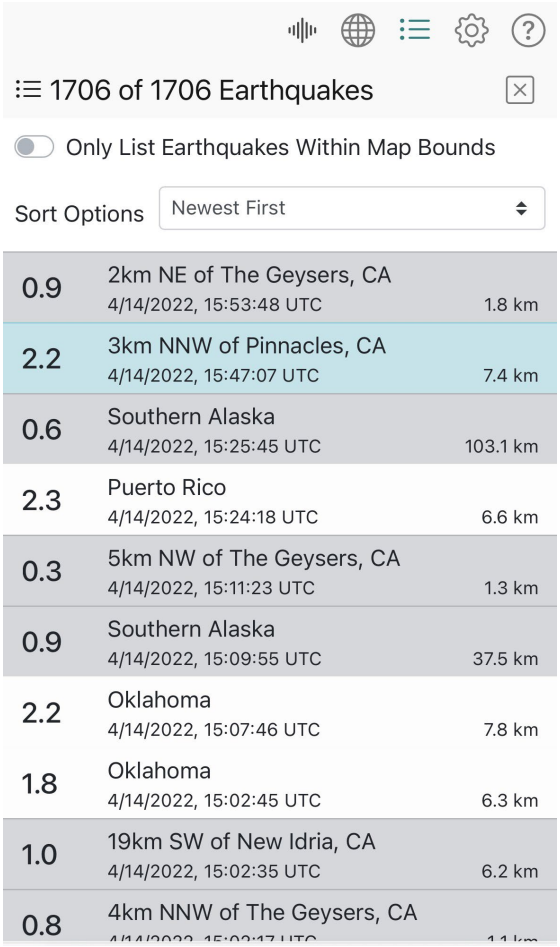


Figure 2. CISN Display on a Tablet

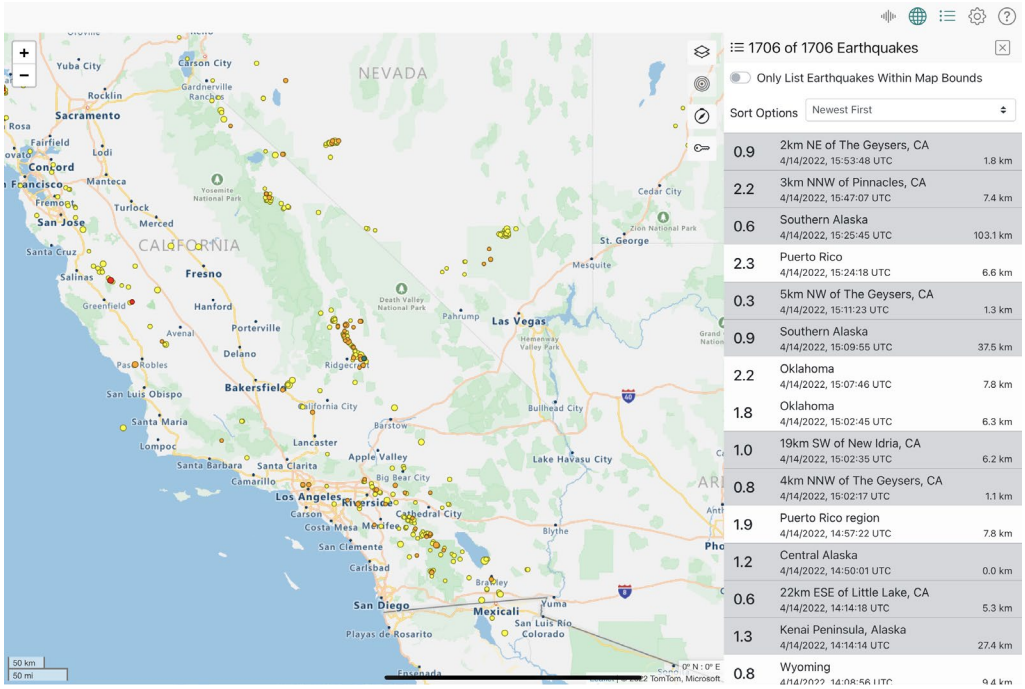
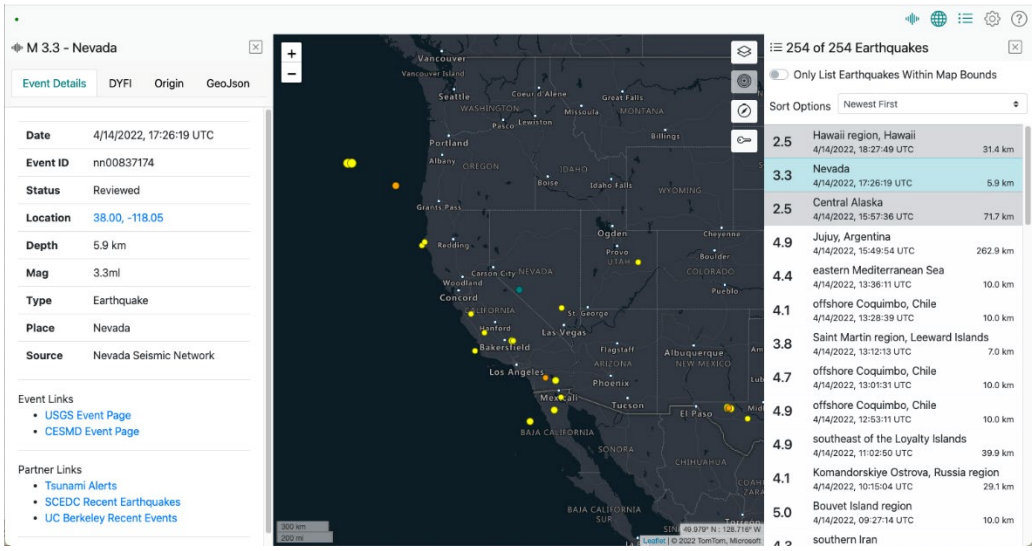


Figure 3. CISN Display Web on a Desktop



1.1 About This Document

This document is a comprehensive guide to CISN Display Web for emergency responders, consumers of critical information who help formulate a rapid and organized response to an earthquake or tsunami emergency, and the general public. It includes step-by-step directions for navigating the application, working with the map, viewing the event list and details, and configuring settings.

Document conventions include bold text for the names of buttons and checkboxes and elements clicked or selected by a user, e.g., "Select the **Map** icon from the **Navigation** toolbar."

1.2 Gateway to Other Earthquake Products

As a portal that provides all relevant earthquake hazards information produced after an earthquake, CISN Display Web facilitates the rapid distribution of additional online tools and services useful to emergency responders. CISN Display Web displays any web-based products currently available for an event, including, but not limited to, ShakeMap, Did You Feel It?, Tsunami Warning messages, and Focal Mechanisms. ShakeMap, which displays the pattern of ground shaking, can be added as a layer for applicable events. URLs and detailed information related to these, and other Internet products are automatically created for each event and made available, giving users quick access to crucial decision-making information.

1.3 Development Partners

CISN Display Web was a cooperative project of the California Integrated Seismic Network (CISN). CISN members include the California Geological Survey (CGS), the United States Geological Survey (USGS), the California Governor's Office of Emergency Services (OES), the California Institute of Technology, Seismological Laboratory, and the University of California, Berkeley, Seismological Laboratory. OES, USGS, FEMA/OES Hazards Mitigation and Emergency Management Performance Grant Programs, and the National Tsunami Hazard Mitigation Program of the National Oceanographic and Atmospheric Administration (NOAA) provide funding for the project. Instrumental Software Technologies Incorporated (ISTI), a geophysical software development company known for its seismology and nuclear physics expertise, developed CISN Display and CISN Display Web. ISTI also provided in-kind support.

2 GETTING STARTED

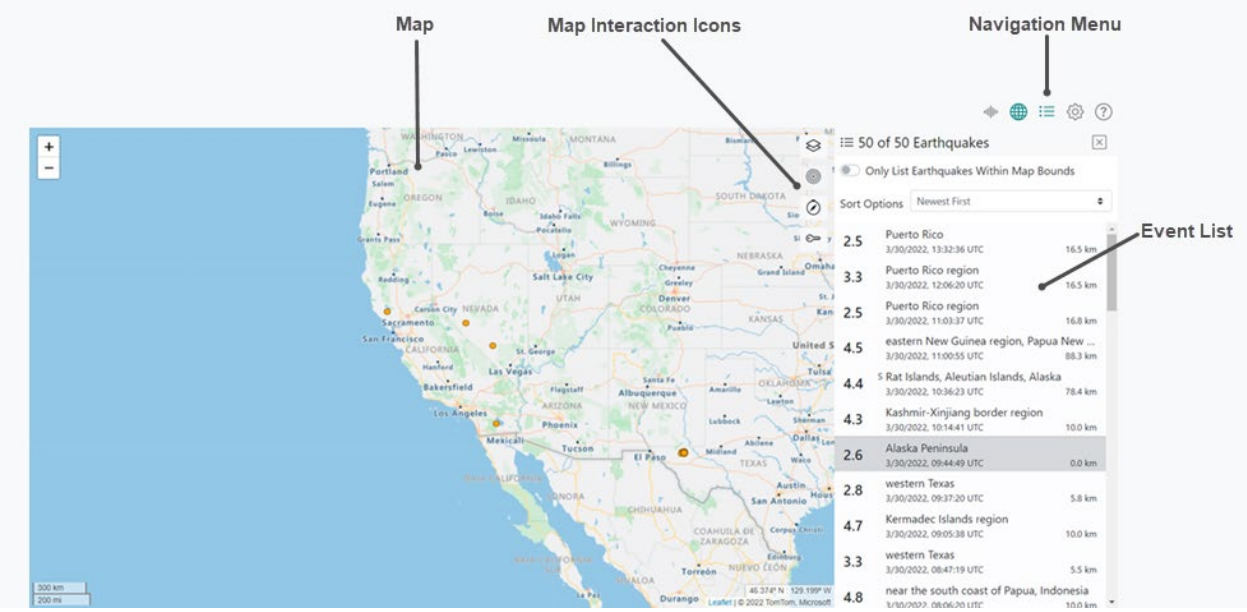
This section contains information on the user interface, system navigation, settings, tooltips, event popup summaries, and what you can expect to see in the CISN Display Web application.

2.1 User Interface

2.1.1 Default View

When you enter CISN Display Web *for the first time*, you see the default view shown in Figure 4. This default view of the user interface shows the **Navigation** toolbar, map, map interaction icons, and event list.

Figure 4. Default View of CISN Display Web User Interface



2.1.2 Layout

The CISN Display Web User Interface comprises five main areas, hereafter referred to as *panes*: Details, Map, List, Settings, and Help. Each pane is accessible from the **Navigation** toolbar shown in Figure 7.

To optimize viewing of all critical earthquake hazard information, CISN Display Web has a multi-pane layout. Except for the **Help** pane, which opens to the entire screen's width, each pane that you open displays beside any others open at that time. Figure 5 shows the **Details**, **Map**, and **List** panes open simultaneously. Figure 6 shows **Map**, **List**, and **Settings** panes open simultaneously. You can open up to four panes at a time.

Figure 5. Example View of Details, Map, and List Panes Open Simultaneously

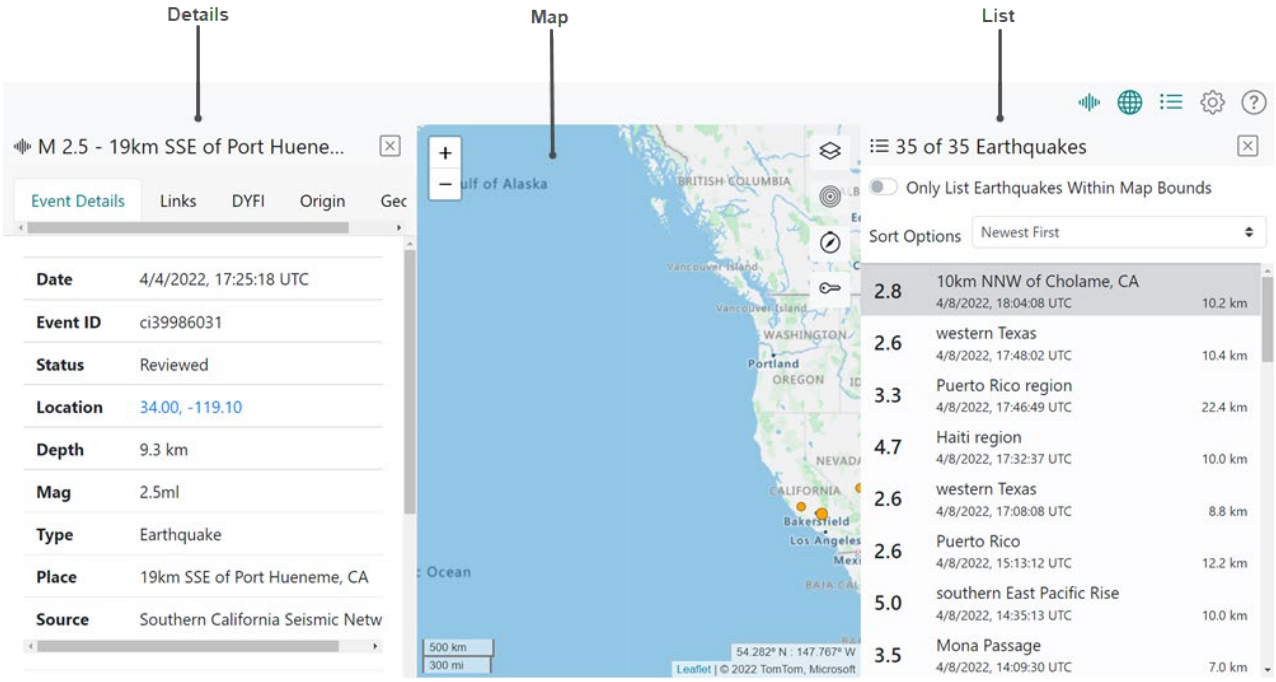
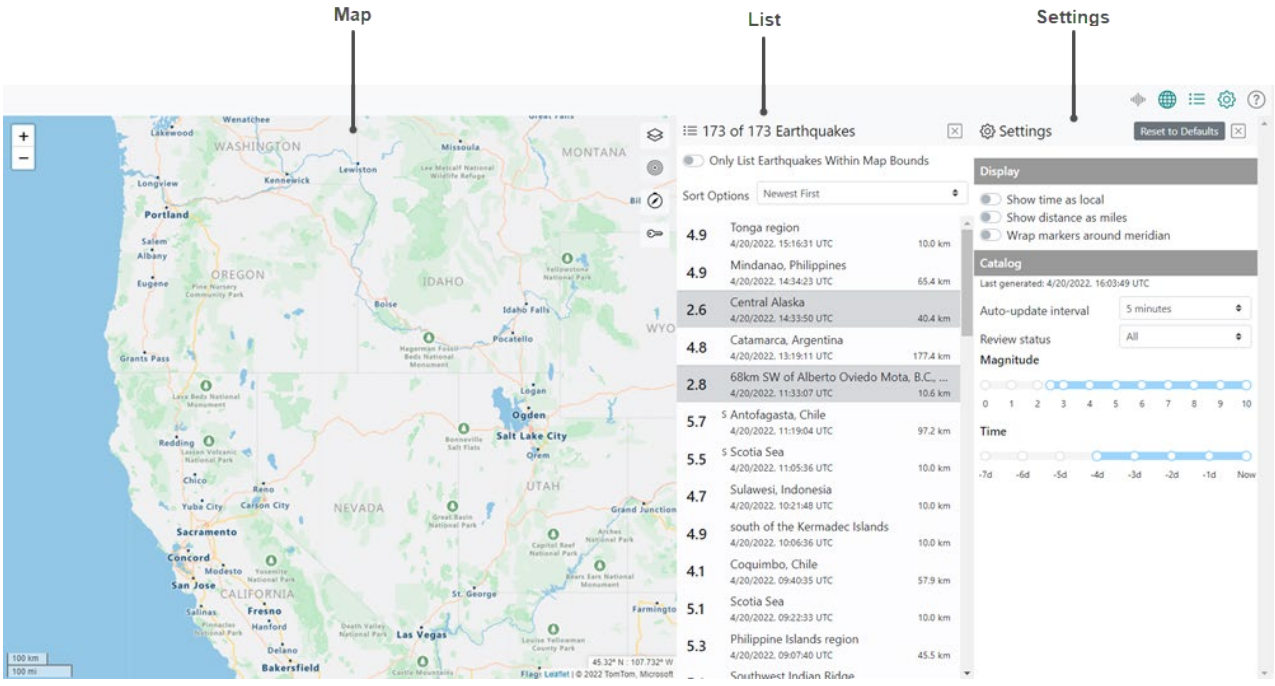


Figure 6. Example View of Map, List, and Settings Panes Open Simultaneously



Each pane has unique width, as described in Table 1.

Table 1. Pane Widths

Pane	Opens with
Map	Variable width – width varies depending on how many other panes are open
List, Details, Settings	Fixed width – always opens at the same set width, regardless of how many other panes are open simultaneously
Help	Full width – always opens at full width, obscuring any other open panes; however, once you close Help, the system returns you to your [other] open panes

There are two ways to close a pane:

1. Re-click the icon for the pane you want to close; or
2. Click ☒ to exit from the pane.

The Help page opens to the entire screen width; all other pages open as one of four columns on the screen. When you exit from the Help page, either by clicking the Help icon or the ☒, the system returns you to your screen as you left it.

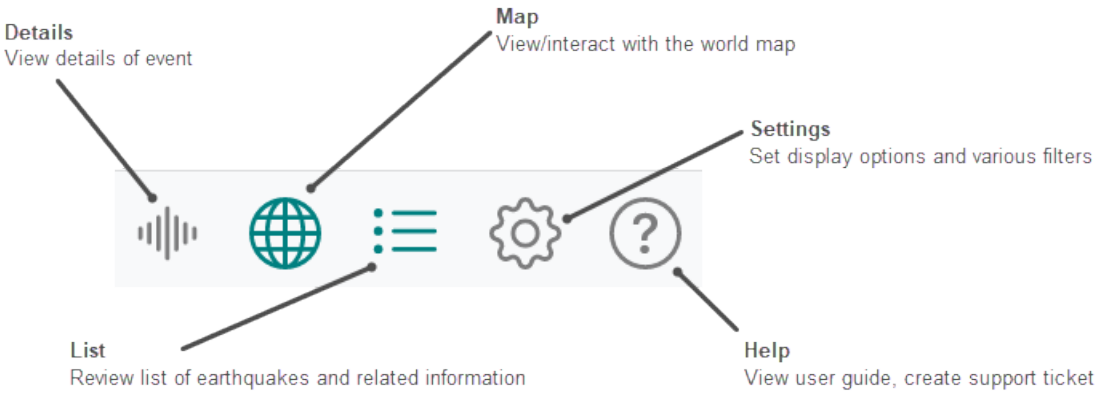
2.1.3 Navigation

Navigate to the various user interface's five panes – Details, Map, List, Settings, and Help – using the **Navigation** toolbar (Figure 7).

To open any of the five panes, click their respective icons in the **Navigation** toolbar. Clicking an icon the first time opens a pane and clicking it a second time closes it.

Icons in the **Navigation** toolbar are gray until you select one, at which time it turns green. An icon stays green until you click it a second time or you close the pane it controls; at which time it turns back to gray.

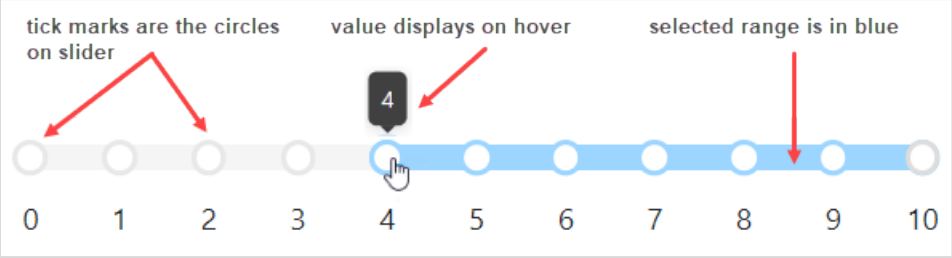
Figure 7. Navigation Toolbar



2.1.4 Sliders

CISN Display Web uses sliders that enable you to set magnitude and time ranges for events. Elements of a slider are shown in Figure 8.

Figure 8. Elements of a Slider



To interact with a slider:

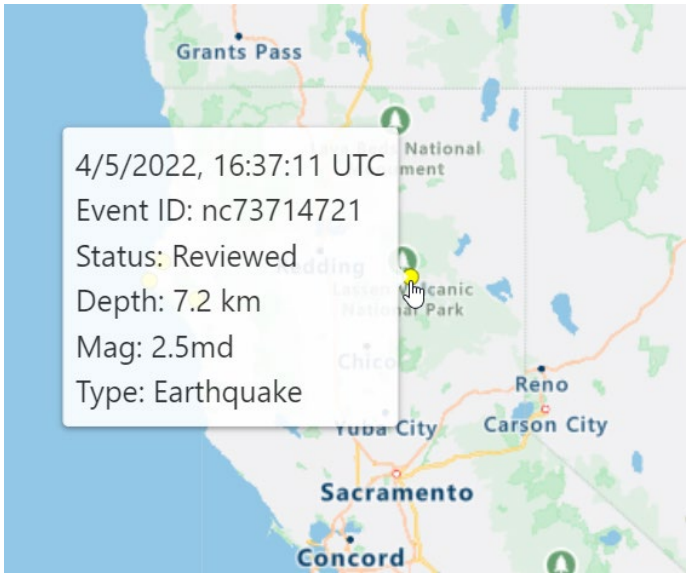
- Click any tick mark to move the slider to that tick mark
- Hover over the beginning or ending tick mark in your selected range to see a tooltip that displays the value of the beginning or end of your range.

2.2 Tooltips

Hovering over CISN Display elements provides you with various tooltips:

- Hover over any event on the map to get an Event Summary tooltip that summarizes the event (Figure 9).

Figure 9. Example of Event Summary Tooltip



- Hover over any icon (Figure 10), map overlay (Figure 11 and Figure 12), and settings filter (Figure 13) to display a tooltip with their respective type, name, or value.

Figure 10. Example of Icon Tooltip

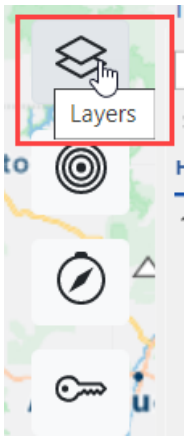


Figure 11. Example of Plate Boundary Overlay Tooltip

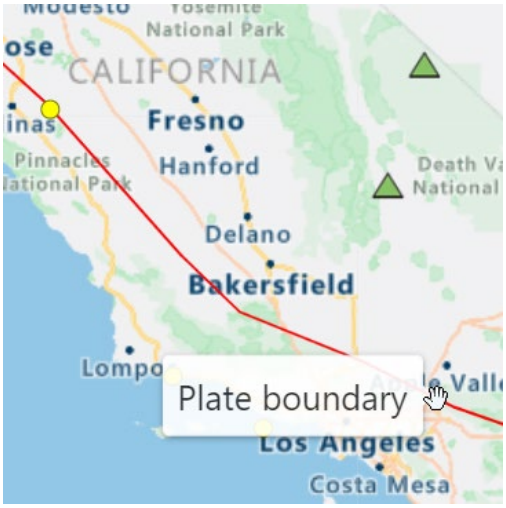
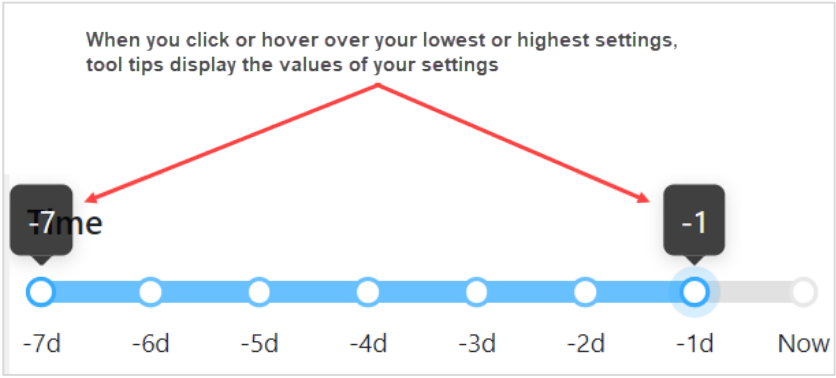


Figure 12. Example of U.S. States Overlay Tooltip

Figure 13. Example of Slider Tooltip in Settings



2.3 User Authentication

This section of the user guide is for authenticated users only.

Note

If you are authorized to receive real-time notifications, ask your emergency response manager for your login credentials.

2.3.1 Authenticated vs. Non-Authenticated Users

Authenticated users are typically emergency responders who must have immediate access to earthquake hazard information.

The differences between an authenticated user vs. a non-authenticated user are twofold:

1. **Real-time data feed** – your version of CISN Display Web receives event updates as they happen.
2. **Real-time notifications** – you receive notifications about new events as they happen. These notifications are configurable in the **Settings** pane.

See Sections 4.4 - Select an Event in List and 6.4 - Real-Time Notifications to learn about the additional features provided to authenticated users.

2.3.2 How to Sign In and Out

To sign in as an authenticated user, navigate to the URL of the Sign-In page provided to you, enter your Username and Password, and click **Sign in**. When you sign in for the first time, or after clearing your cache or resetting your defaults, you are brought to the CISN Display Web application's default view, as shown in Section 2.1.1 - Default View. As described in Section 2.3 - User Settings, if your settings are saved, you will see the same view you saw when you ended your last work session.

To sign out as an authenticated user, click the **Sign out** button at the bottom of the Settings pane.

2.3.3 Connection Status Indicator

Authenticated users' screens display a connection status indicator, in the form of a colored dot, in the upper left corner of the CISN Display Web user interface (Figure 14). The color of the connection status indicator is green, yellow, or red, depending on the status of your connection, as described in Table 2.

Figure 14. Connection Status Indicator Location in User Interface

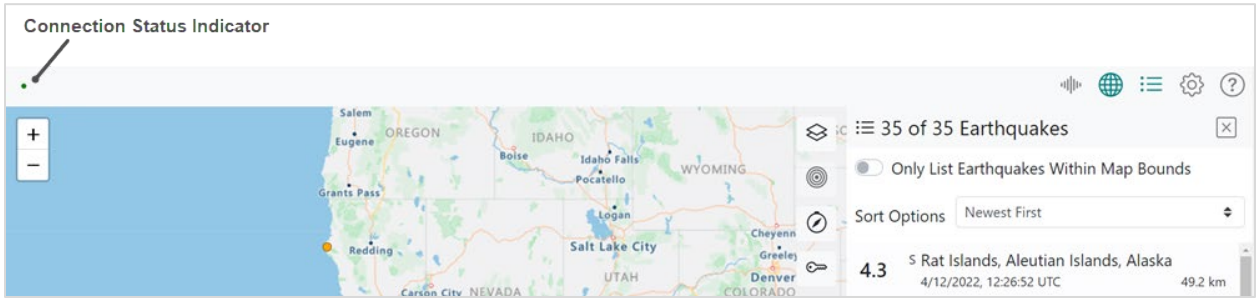


Table 2. Connection Status Indicator Colors

Color	Example	Denotes
Red		Disconnected
Yellow		Connecting
Green		Connected

2.4 User Settings

2.4.1 How User Settings are Saved

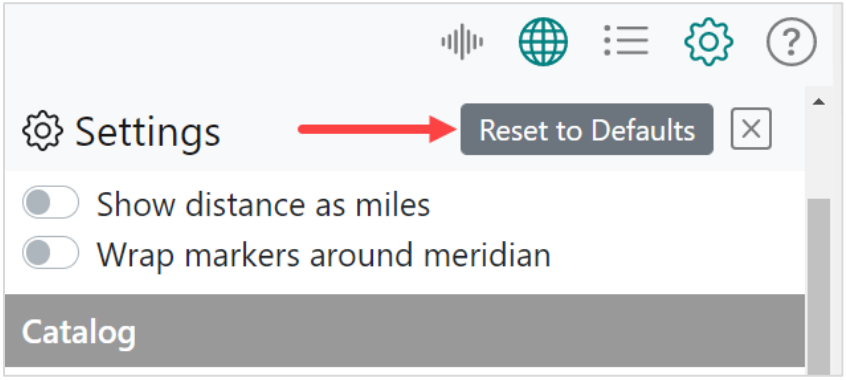
CISN Display Web uses cookies to automatically save your preferred application settings from your most recent work session.

> Note: Using a single browser on a single machine will keep your settings forever unless you choose to erase them by pressing the **Reset to Defaults** button. However, if you switch browsers, e.g., open CISN Display using Chrome instead of Firefox (the browser you have typically used), you will have to set all of your preferences again.

2.4.2 How to Reset to Defaults

CISN Display Web automatically saves your settings from your current or last application use. To restore the application's defaults, open the **Settings** pane and click **Restore to Defaults** (Figure 15**)**.

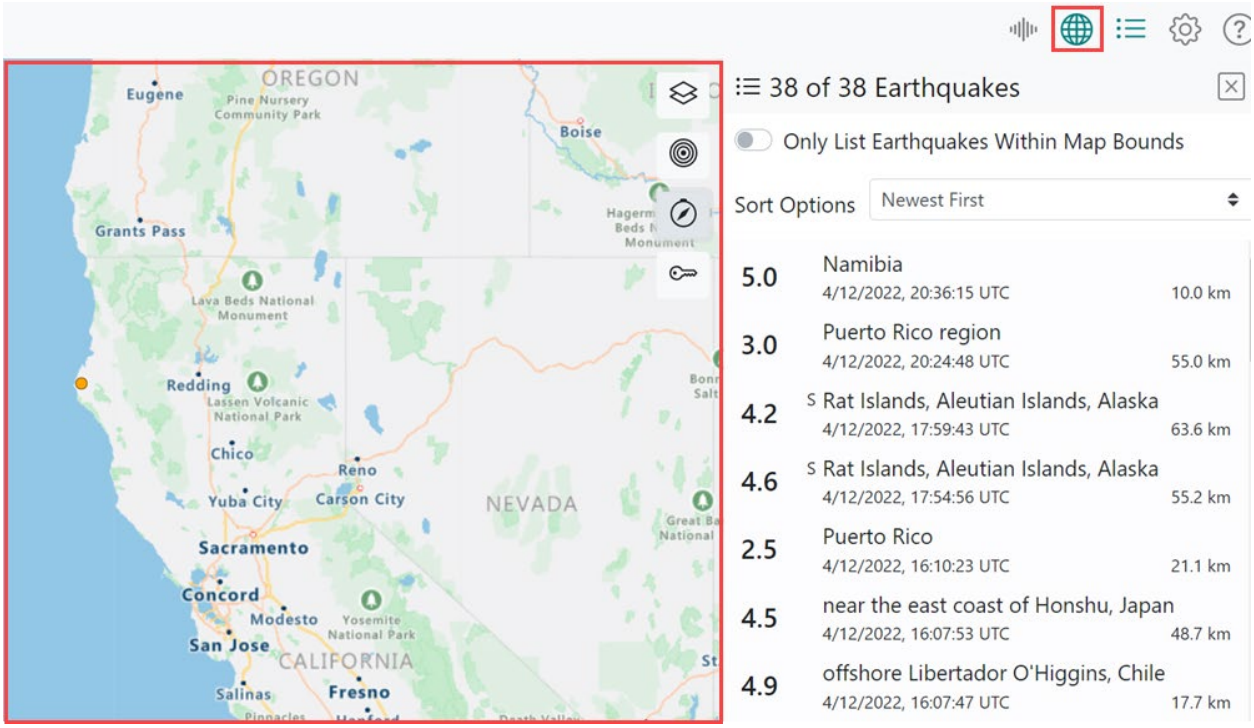
Figure 15. Restore to Defaults



3 MAP

Open the Map pane by clicking the **Map** icon in the menu (Figure 16).

Figure 16. Map Pane



By default, CISN Display Web shows events on the map as different shapes (see Table 3), and each circle's color depends on the corresponding magnitude and age (see Section 3.6 - Map Legend).

3.1 Map Icons

The map has its own icons, and each icon has specific functionality (see Figure 17).

Figure 17. Map Icons

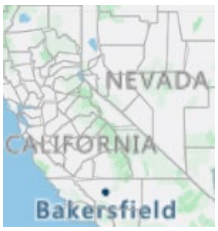
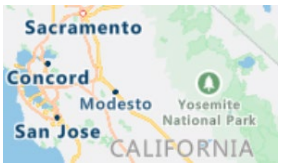
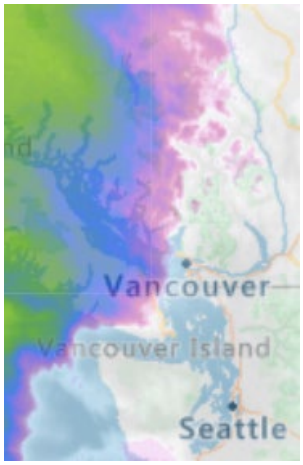
3.2 Map Markers

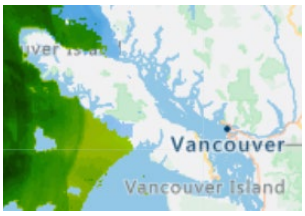
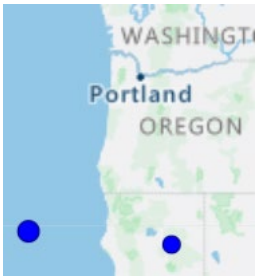
CISN Display Web uses various markers on the map, as shown in Table 3.

> Note: Table 3 includes all map markers, including ShakeMap-specific markers. For more information about *ShakeMap-specific markers only*, see Table 7.

Table 3. Map Markers

Marker	Denotes
○	Earthquake (default)
□	Earthquake, if Square Markers are enabled as a map layer
△	Volcano; color is based on alert level
◇	ShakeMap Seismic Station
⬠	ShakeMap Did You Feel It (DYFI) Station
	U.S. Faults
	Plate Boundaries
	U.S. States

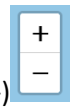
Marker	Denotes
	U.S. Counties
	Labels/Roads
	Traffic/Flow
	Traffic/Incident
	Weather/Infrared

Marker	Denotes
	Weather/Radar
	Classic Colors – "classic" colors, in this instance, refers to red, blue, yellow; therefore, if you select Classic Colors as a map layer, the color of earthquakes on the map changes from (red < 1 hour, **orange** < 1 day, yellow < 1 week) to (red < 1 hour, **blue** < 1 day, yellow < 1 week)

3.3 Map Interactions

3.3.1 Zoom

Use any of the following options to zoom in and out on the map (see also 3.3.2 - Zoom to Regions):

- CISN Display Web map controls (+,-) 
- Double click anywhere on the map; with each double click on the map, the application zooms in closer
- Keyboard plus and minus keys
- Mouse scroll wheel.

3.3.2 Zoom to Regions

To zoom to specific, preset regions on the map:

1. Click the **Regions** icon  .
2. Select a region.
3. The map zooms to the selected region. Figure 18 shows the map with Alaska selected as a region.

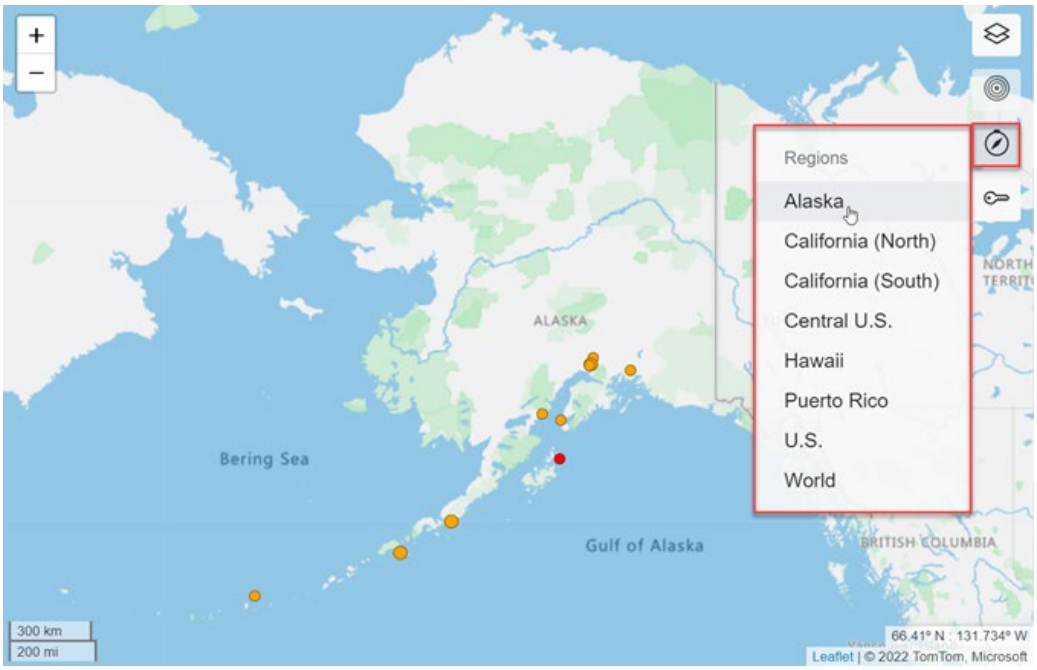


Figure 18. Preset Region Example

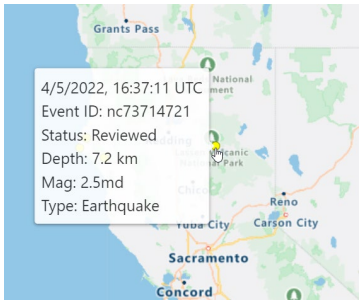
3.3.3 Pan

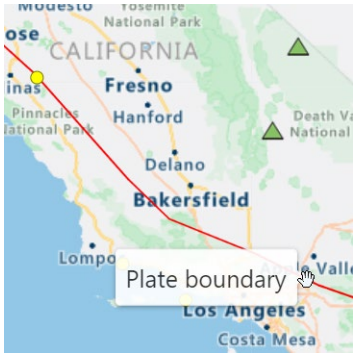
Click and drag using your mouse to pan the map, or use shift+arrow keys (left, right, up, down).

3.3.4 Hover

Hover over various map elements to get the tooltips shown in Table 4.

Table 4. Map Tooltips Shown on Hover

Map Element	Map Tooltip Shown on Hover
Event	Event Summary 

Map Element	Map Tooltip Shown on Hover
Overlay	Type of overlay 
Overlay that shows U.S. states or counties	Name of the state or county 
ShakeMap event	Intensity of the ShakeMap event (intensity varies within a ShakeMap, but you can hover over all of the various areas within a ShakeMap event to see each intensity) 

3.3.5 Select an Event

When you select an event on the map, two things occur:

1. The map pans/zooms to the selected event.

2. The **Details** pane opens and contains information about the selected event. If the **Details** pane is already open when you select the event, it updates to reflect the selected event's details.

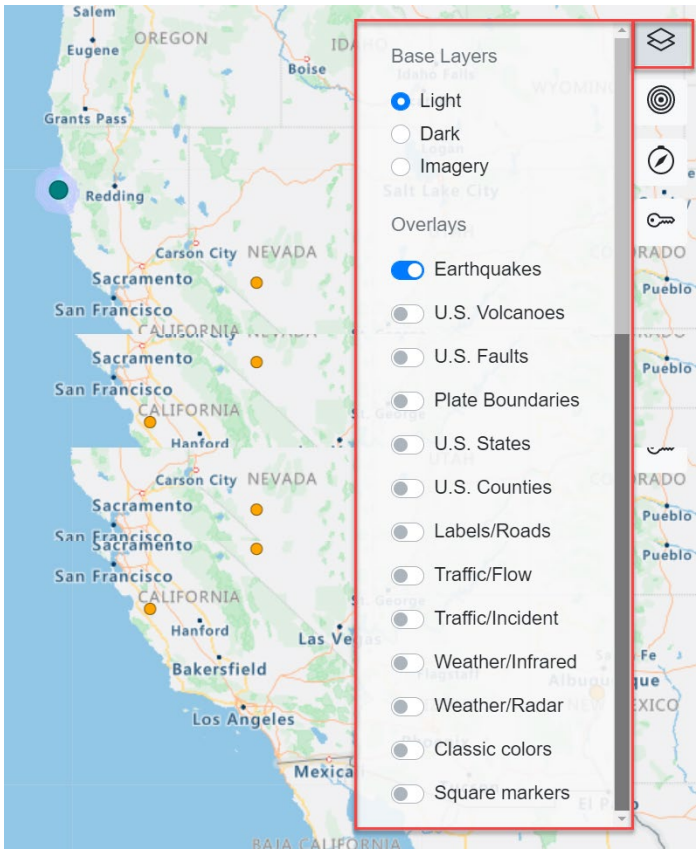
3.4 Map Layers and Overlays

3.4.1 Add/Remove Map Layers and Overlays

To add a map layer:

1. Click the **Layers** icon  on the map (Figure 19).

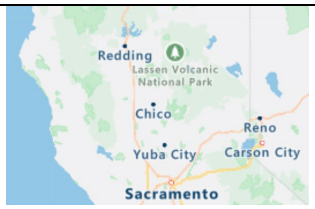
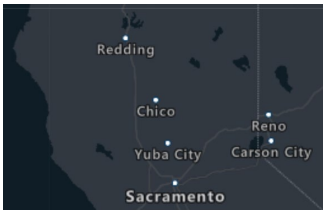
Figure 19. Map Layers and Overlays Dropdown



2. From the **Layers** dropdown, toggle on or off a base layer: light, dark, or imagery (see Table 5). You can choose *only one base layer at a time*.

Table 5. Map Base Layers

Layer	Denotes
Light (default)	A light style applied to all layers

	
Dark	A dark grey style applied to all layers 
Imagery	A combination of satellite and aerial imagery 

3. Toggle on or off one or more of the following additional layers (see Table 6).

Table 6. Map Overlays

Layer	Denotes
Earthquakes (default)	Earthquake catalog, sourced from the ANSS Comprehensive Earthquake Catalog, which is provided to is provided to CISN Display Web end users courtesy of the partnership between CalOES and CGS
U.S. Volcanoes	Volcano status, courtesy of USGS
U.S. Faults	California and Nevada faults
Plate Boundaries	Global plate boundaries
U.S. States	U.S. state boundaries from 2010 census data; 5m resolution

Layer	Denotes
U.S. Counties	U.S. county boundaries from 2010 census data; 5m resolution
Labels/Roads	Road, boundary, and label data
Traffic/Flow	Colors reflect the speed relative to free-flow, highlighting areas of congestion and visualizing the traffic flow (free-flow refers to conditions with no congestion, and traffic can follow the speed limits)
Traffic/Incident	Creates traffic lines with colored chevrons indicating severity
Weather/Infrared	Latest Infrared Satellite images show clouds by their temperatures
Weather/Radar	Weather radar tiles and the latest weather radar images, which include areas of rain, snow, ice, and mixed conditions
Classic Colors	Red, blue, yellow are classic colors; therefore, if you select Classic Colors as a map layer, the color of earthquakes on the map changes from (red < 1 hour, **orange** < 1 day, yellow < 1 week) to (red < 1 hour, **blue** < 1 day, yellow < 1 week)
Square Markers	Changes earthquake markers from circles to squares

3.5 ShakeMaps

3.5.1 ShakeMap Markers

CISN Display Web shows ShakeMaps on the map as diamonds or pentagrams, depending on the station type (Table 7).

Table 7. ShakeMap-Specific Symbols

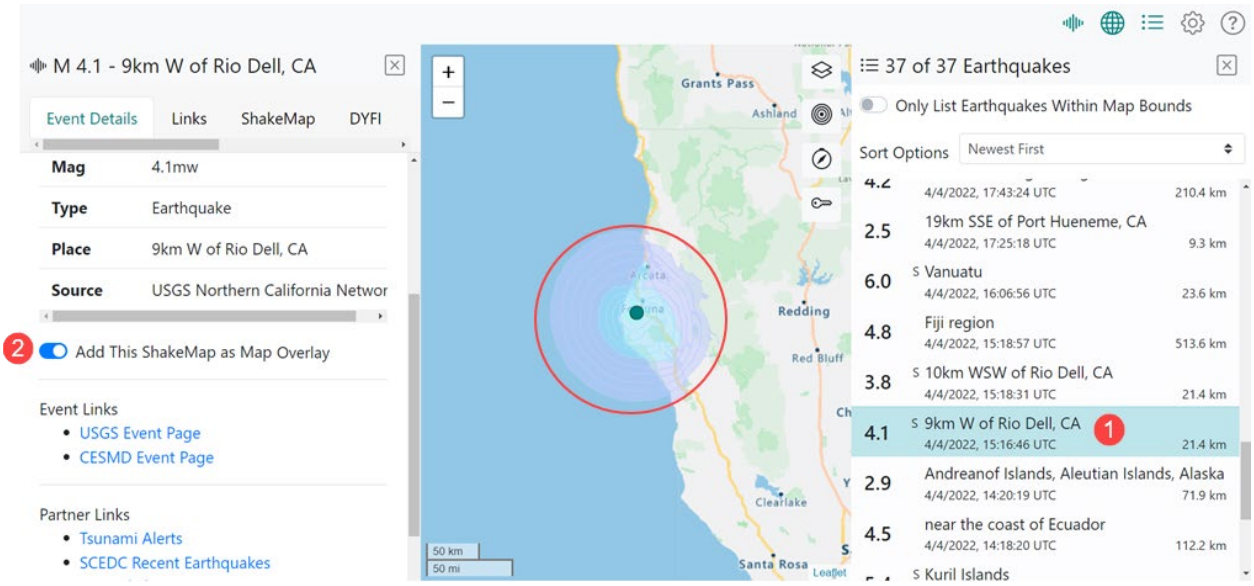
Symbol	Denotes
◇	ShakeMap Seismic Station; color is based on ShakeMap intensity
⬠	ShakeMap Did You Feel It (DYFI) Station; color is based on ShakeMap intensity

3.5.2 Add ShakeMap as Map Overlay

To add a ShakeMap overlay to the map:

1. Click an event in the list that displays the "S" symbol. The application will zoom to the ShakeMap on the map, and simultaneously, it will open the **Details** pane if it was closed or, if it is already open, it will update it to reflect the details of the event you just clicked.
2. Turn on the **Add This ShakeMap as Map Overlay** toggle switch on the **Event Details** tab. The ShakeMap appears on the map encircled in red (Figure 20).

Figure 20. ShakeMap Overlay

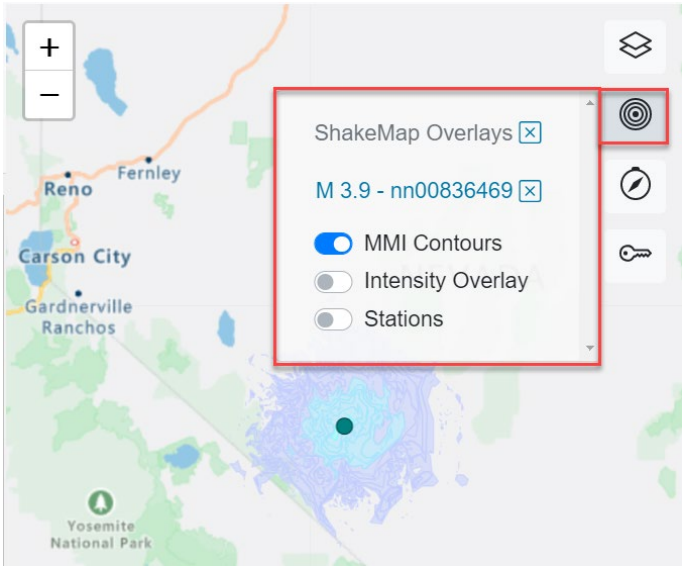


3.5.3 Configure a ShakeMap Overlay

You can configure a ShakeMap overlay you've already added to the map:

1. Click the **ShakeMaps** icon to bring up the **ShakeMap Overlays** dropdown (Figure 21).

Figure 21. ShakeMap Overlays Dropdown



2. Toggle on or off any of the desired options described in Table 8.

Table 8. Definition of ShakeMap Overlays

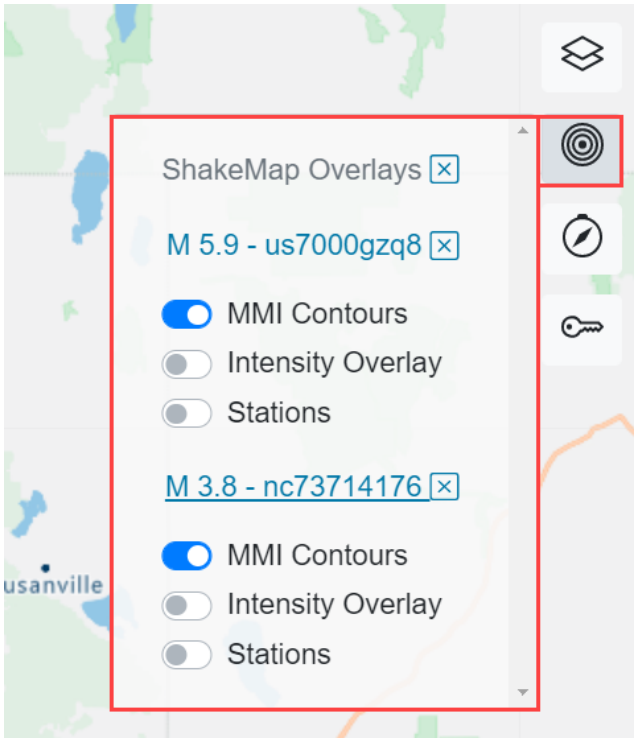
ShakeMap Overlay	Denotes
Modified Mercalli Intensity (MMI) Contours (default)	Shows contour polygons of the peak macroseismic intensity (usually, but not necessarily, MMI) in intervals of 0.2 intensity units
Intensity Overlay	Shows macroseismic intensity (usually, but not necessarily, mmi) from a png overlay file, with the accompanying world file used for georeferencing
Stations	Adds to the map any stations located in the area of the ShakeMap

3.5.4 Add and Configure Multiple ShakeMap Overlays

To add additional ShakeMap overlays in addition to any currently displayed on the map:

1. Click another event in the list that displays the "S" symbol. The application will zoom to the ShakeMap on the map, and simultaneously, it will open the **Details** pane if it was closed or, if it is already open, it will update it to reflect the details of the event you just clicked.
2. Toggle on **Add This ShakeMap as Map Overlay** on the **Event Details** tab. The ShakeMap appears on the map (Figure 20).
3. Click the **ShakeMaps** icon to configure the ShakeMap layer you've added to the map. Note that all the ShakeMap overlays you have added to the map are reflected in the **ShakeMap Overlays** dropdown (Figure 22).

Figure 22. ShakeMap Overlays Dropdown with Multiple ShakeMap Overlays

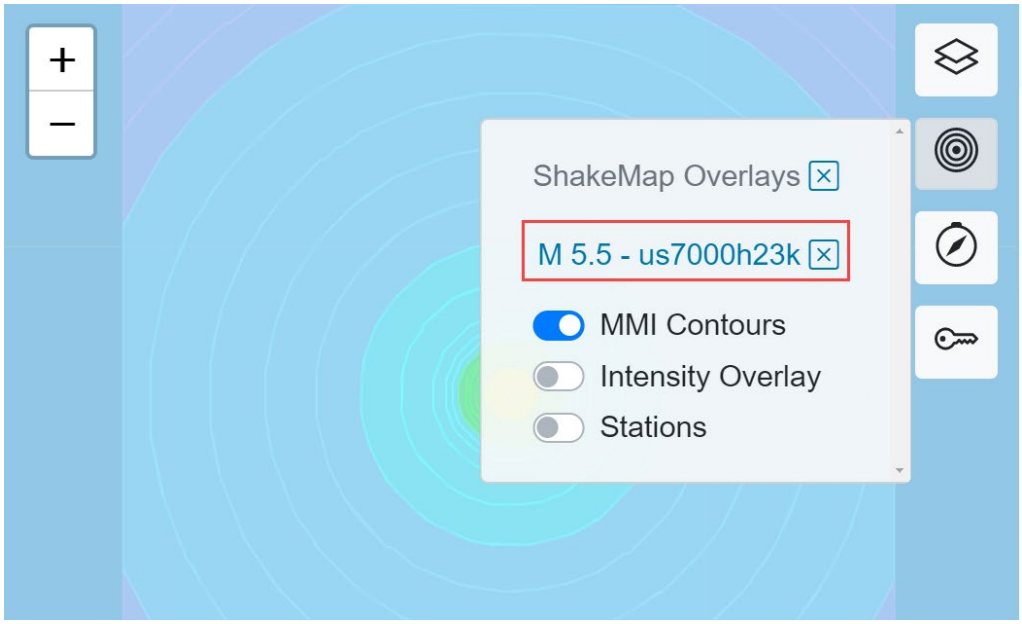


4. Toggle on or off any of the ShakeMap overlays displayed in the dropdown.

3.5.5 Click a ShakeMap Event

When you click an event in the **ShakeMap** dropdown, the map pans/zooms to the ShakeMap event (Figure 23).

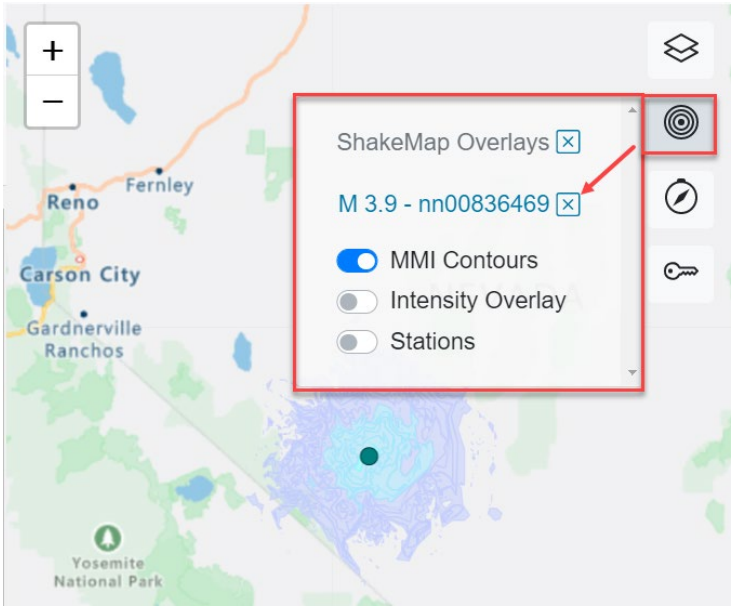
Figure 23. Click ShakeMap Event to Pan/Zoom to Event



3.5.6 Remove a ShakeMap Overlay from the Map

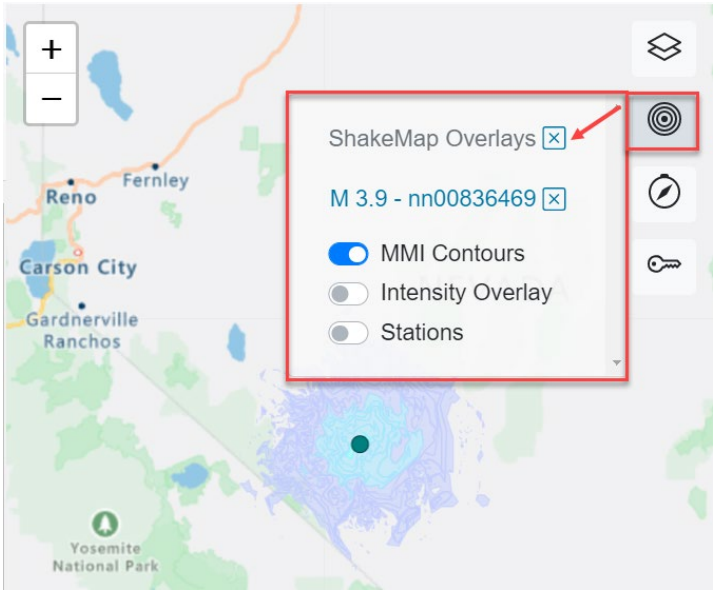
To remove *a specific ShakeMap overlay* from the map, from the **ShakeMap Overlays** dropdown, click ☒ next to the ShakeMap overlay you wish to remove (Figure 24).

Figure 24. Remove a ShakeMap Overlay



To remove *all ShakeMap overlays* from the map, from the **ShakeMap Overlays** dropdown, click ☒ next to ShakeMap overlays (Figure 25).

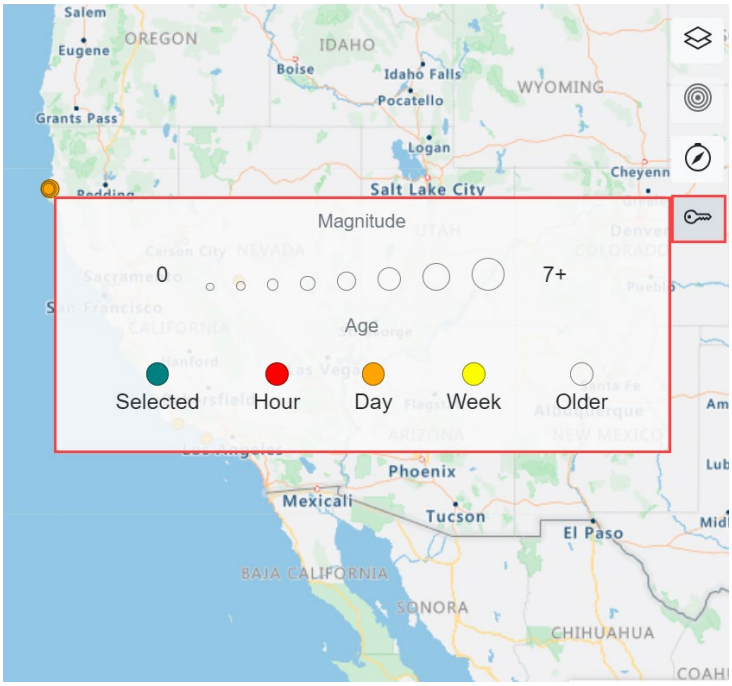
Figure 25. Remove all ShakeMap Overlays



3.6 Map Legend

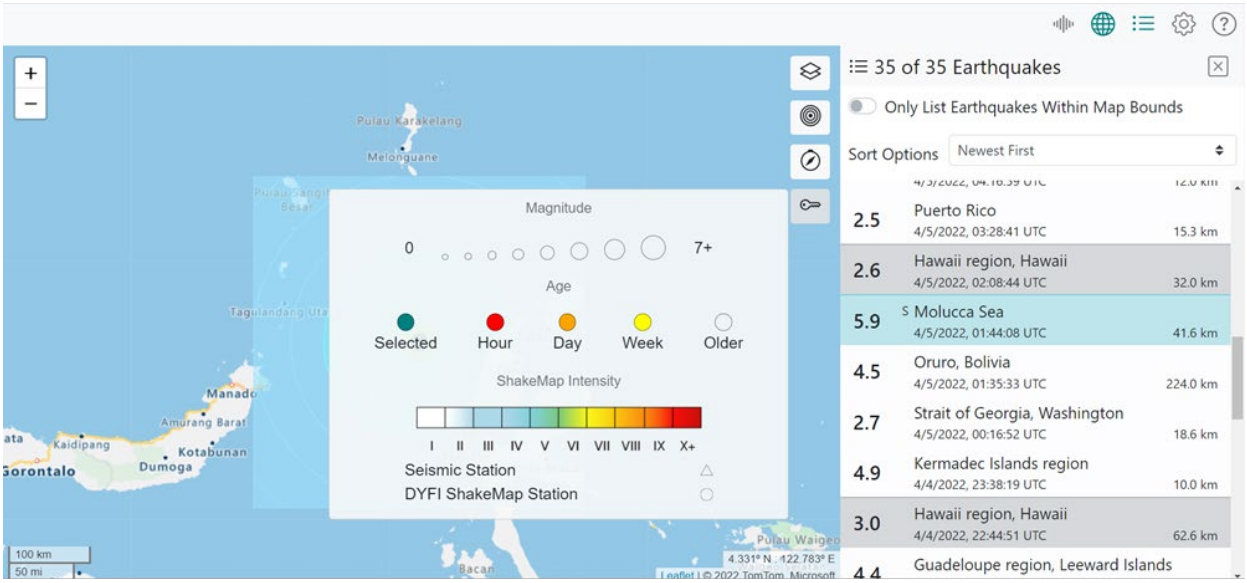
To view the map legend, click the **Legend** icon  . The default view of the map legend is shown in Figure 26.

Figure 26. Default Map Legend



As you enable various features in CISN Display Web, the map legend displays additional keys. For example, if you add a ShakeMap overlay to the map, the legend automatically changes to include ShakeMap-related keys (Figure 27).

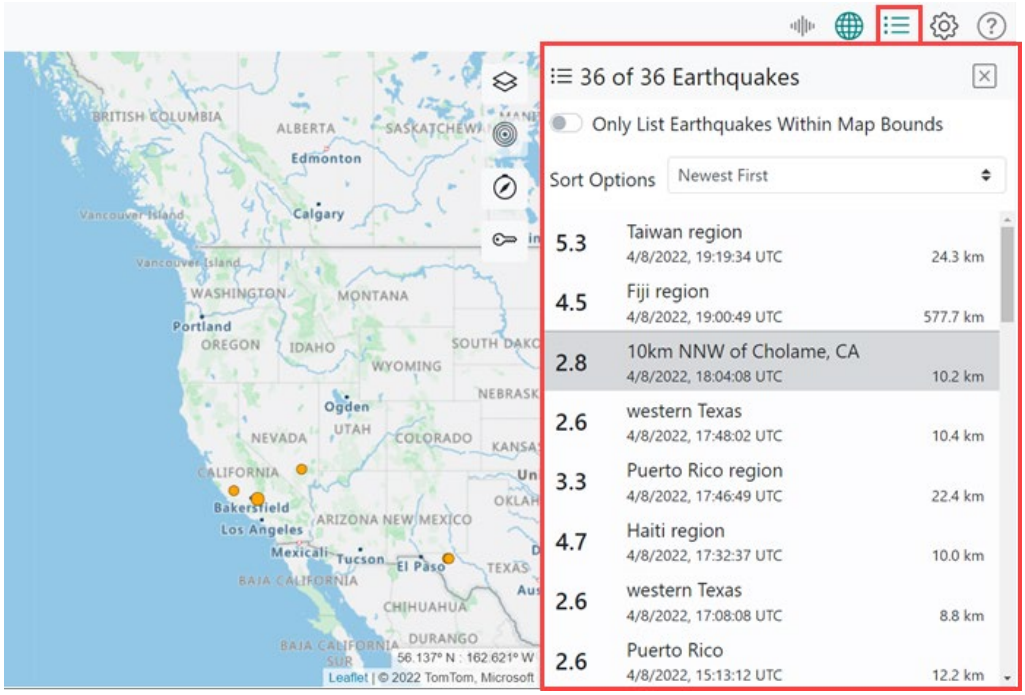
Figure 27. Map Legend Showing Additional Map Keys Based on Enabled Features



4 LIST

The **List** pane brings up a list of events. To view the list, click the **List** icon in the menu (Figure 28).

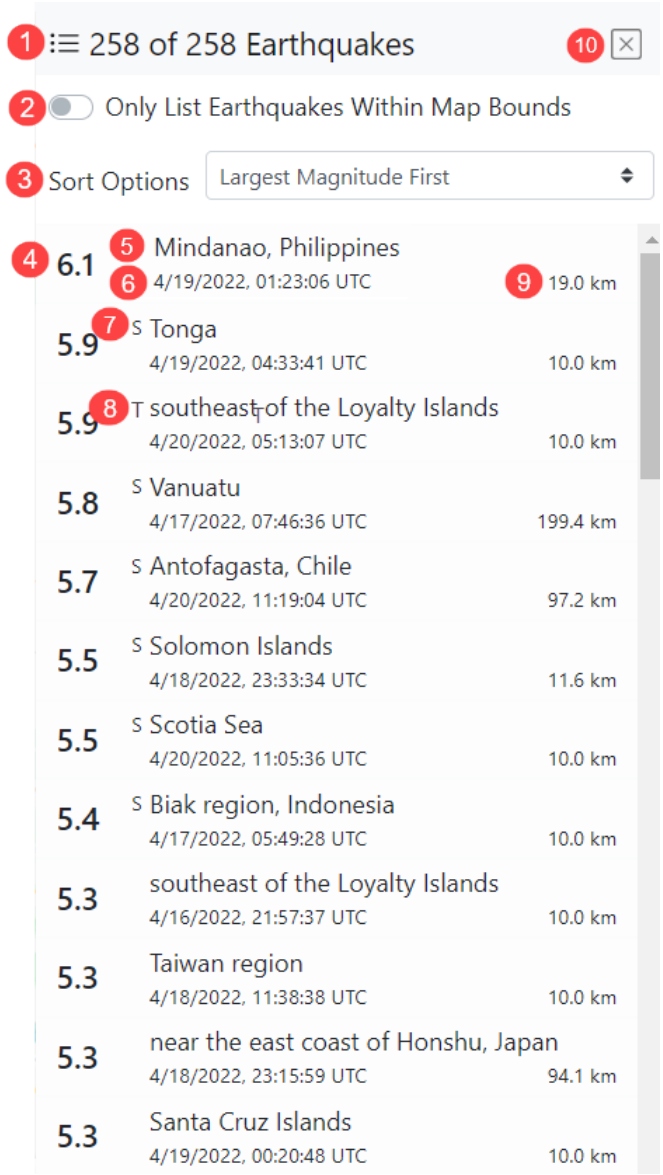
Figure 28. List Pane



4.1 List Elements

Figure 29 and its accompanying table describe the list's primary elements.

Figure 29. List Elements



Ref. No.	List Element	Description
1	*x* of *y* Earthquakes	Where: *x* is the number of earthquakes shown in the list *y* is the total number of earthquakes in the world x value is based on the checkbox Only List Earthquakes Within Map Bounds y value is based on your magnitude and time filter settings (see Section 6 - Settings)

Ref. No.	List Element	Description
2	Only List Earthquakes Within Map Bounds	Toggle **on** – the list filters on visible map bounds and your magnitude and time filter settings Toggle **off** – the list filters *only* on your magnitude and time filter settings
3	Sort Options	Newest First (default), Oldest First, Largest Magnitude First, and Smallest Magnitude First
4	Magnitude	Measure of the size of the earthquake at its source
5	Place	Distance from the nearest city
6	Date and Time	Date and time of the event
7	S	ShakeMap available for this event
8	T	Tsunami notification generated for this event
9	Depth	Depth where the earthquake begins to rupture
10	X	Close the list

4.2 List Colors

The events displayed in the list can have five different colors: white, gray, lavender, and turquoise. Table 9 lists the color, shows an example of the color, and describes what the color means.

Table 9. List Colors

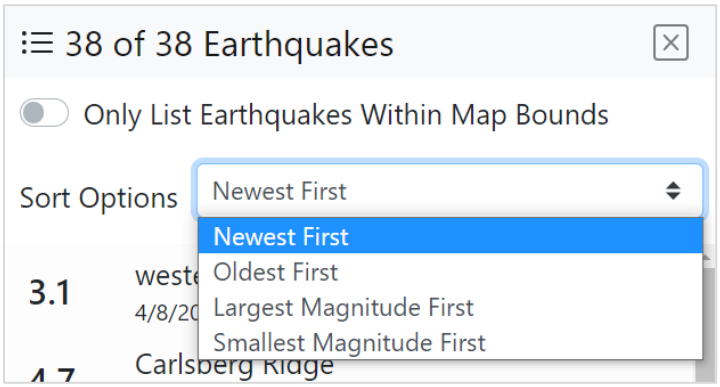
Color of Event in List	Example of Color	Denotes
White	3.5 Mona Passage, Dominican Republic 4/11/2022, 13:19:21 UTC 88.0 km	Reviewed (by a human)
Gray	2.8 Alaska Peninsula 4/11/2022, 15:02:30 UTC 125.2 km	Automatic (not reviewed by a human)
Turquoise	4.5 Taiwan region 4/11/2022, 14:32:30 UTC 12.1 km	You selected/clicked this event

When you hover over any event in the list, it turns a darker shade of its color, e.g., if it's currently gray, it will turn a darker gray when you hover over it.

4.3 List Sort Options

To sort the list, select one of the four options from the dropdown shown in Figure 30.

Figure 30. List Sort Options



4.4 Select an Event from the List

When you select an event from the list, two things occur:

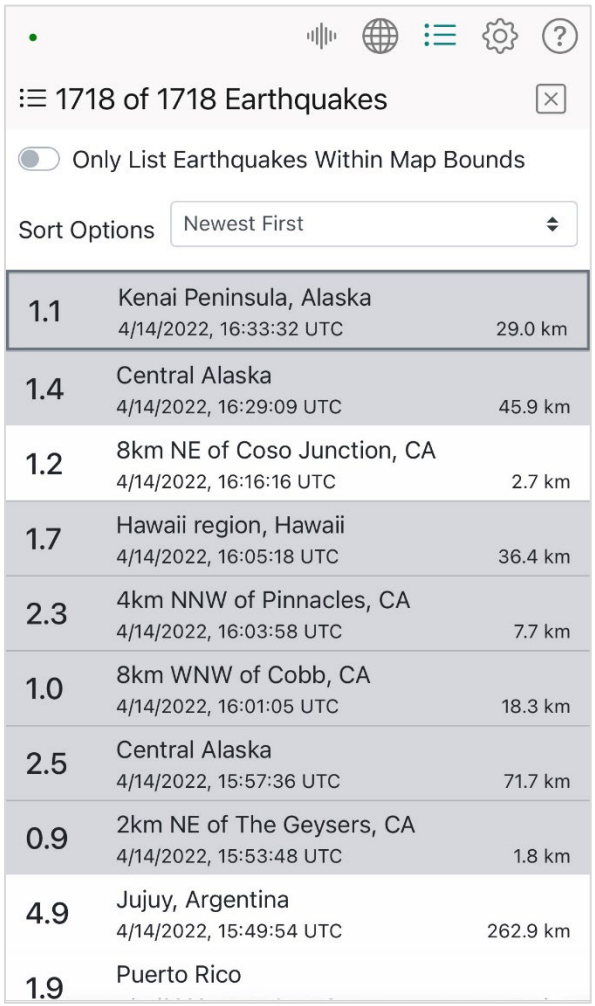
5. Map pans/zooms to the selected event
6. **Details** pane opens with about the selected event. If the **Details** pane is already open when you select the event, it updates to reflect the selected event's details.

4.5 New and Updated Events in List

This section of the user guide is for authenticated users only. Typically, authenticated users are Emergency Responders who must have immediate access to earthquake hazard information.

Authenticated users have an additional feature in the list: new events have a dark square border around them. Figure 31 shows a gray-colored event (signifying an automatic event) with a dark border (signifying a new event).

Figure 31. Example of New Events in List with Dark Square Border



5 DETAILS

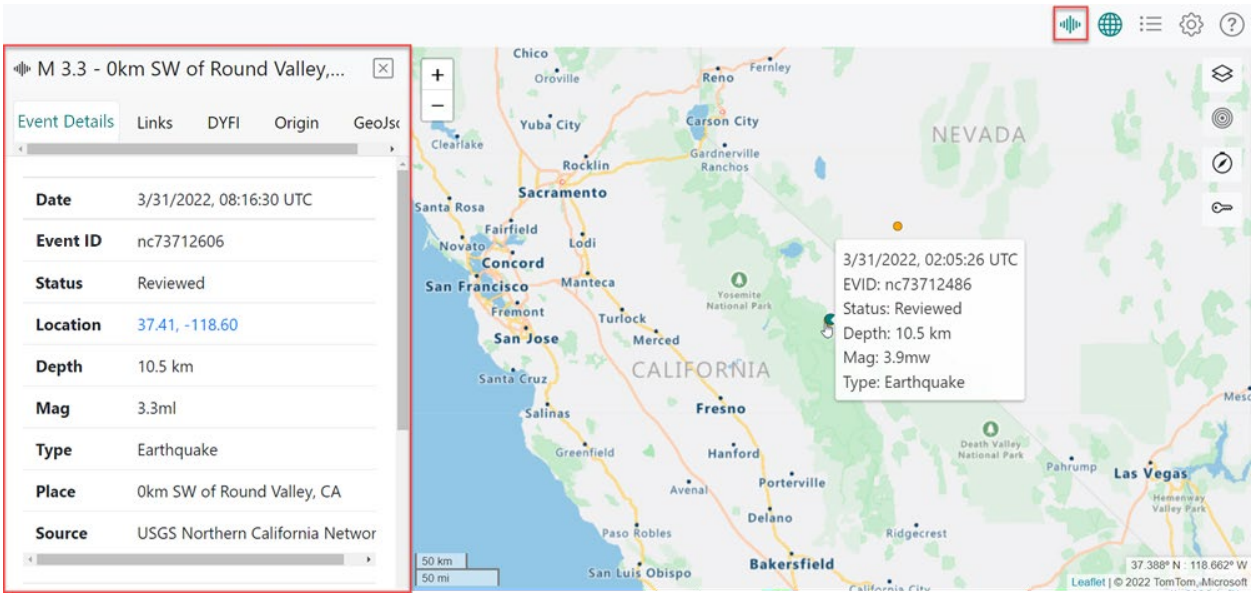
To view comprehensive details about an event:

1. Click an event on the map or in the list.
2. Click the **Details** icon in the menu to bring up the **Details** pane for the selected event (Figure 32).

If you select the Details icon without selecting an event first, via either the map or the list, the application will warn you that no event has been selected.

The **Details** pane is comprised of the **Event Details** tab and one or more additional products depending on how many products are available for the event. Each product has its own tab in the **Details** pane.

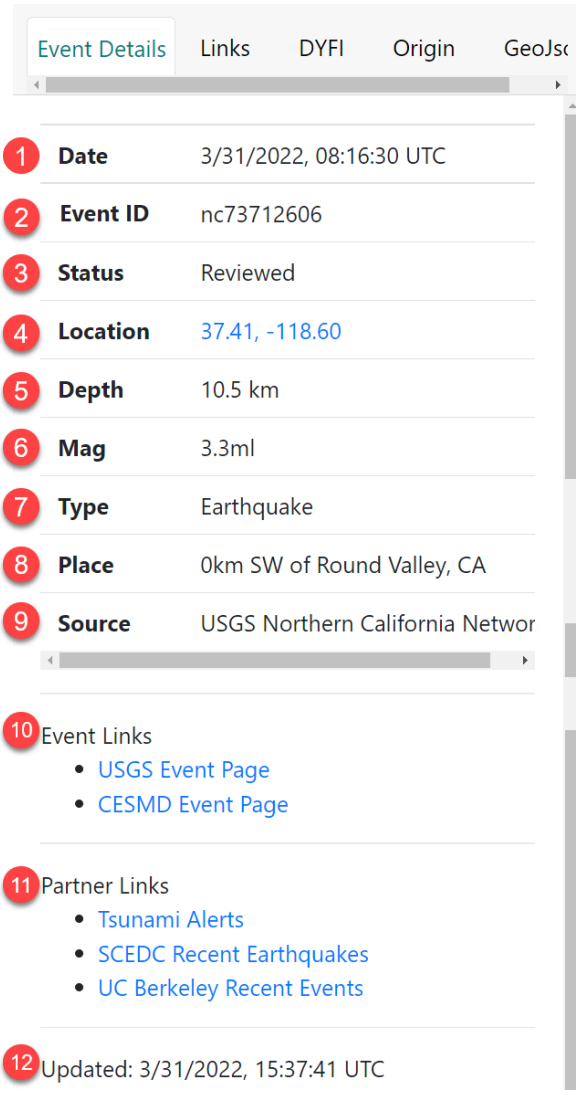
Figure 32. Event Details Pane



5.1 Event Details Tab

The **Event Details** tab, which displays by default, provides a view of all event details. Figure 33 and its accompanying table show and describe the Event Detail's primary elements.

Figure 33. Description of Event Details



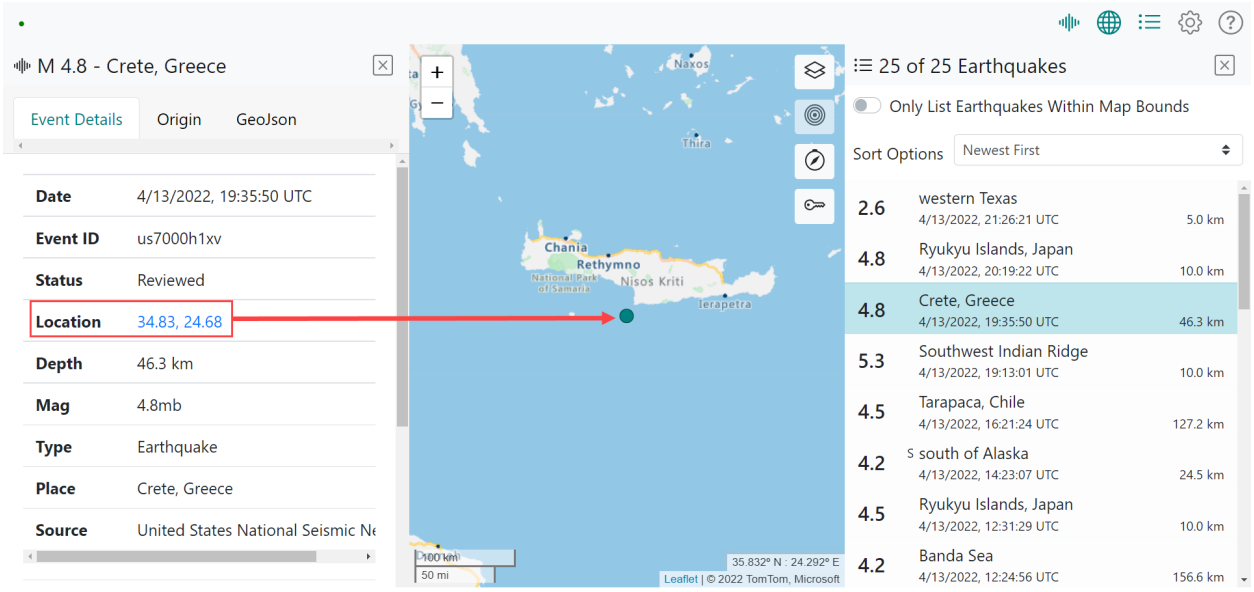
Ref. No.	Event Detail	Description
1	Date	Date the event occurred
2	Event ID	ID assigned to the event by the authoritative seismic network
3	Status	Either Automatic (not reviewed yet) or Reviewed (by a human)
4	Location	Latitude and Longitude (click to zoom to event)
5	Depth	Depth where the earthquake begins to rupture
6	Mag	Measure of the size of an earthquake at its source
7	Type	Type of seismic event, e.g., earthquake, quarry
8	Place	Distance from the nearest city

Ref. No.	Event Detail	Description
9	Source	The authoritative seismic network that is the source of the event information
10	Event Links	Links to other pages with information about this event, e.g., USGS Event Page
11	Partner Links	Links to various partners' pages, e.g., you can click Tsunami Alerts to go to NOAA's U.S. Tsunami Warning System page
12	Updated Date and Time	The date and time of the last update to this event information

5.1.1 Click Lat/Lon

When you click the Lat/Lon coordinates on the **Event Details** tab, the map pans/zooms to the event that corresponds to the lat/lon (Figure 34).

Figure 34. Click Lat/Lon to Pan/Zoom to Event



5.2 Product Tabs

CISN Display Web provides a tab in the **Event Details** pane for each available product for an event to help you automatically associate specific earthquakes to products and services produced by CISN member organizations located on the Web. Products are specific versions of any content produced in response to an earthquake, information about an earthquake, or another product. A product typically consists of a directory of files but may also include a stream of bytes, links to internet resources, and key/value pairs.

Table 10 describes all products that CISN Display Web may potentially display for events.

Table 10. Event Product Descriptions

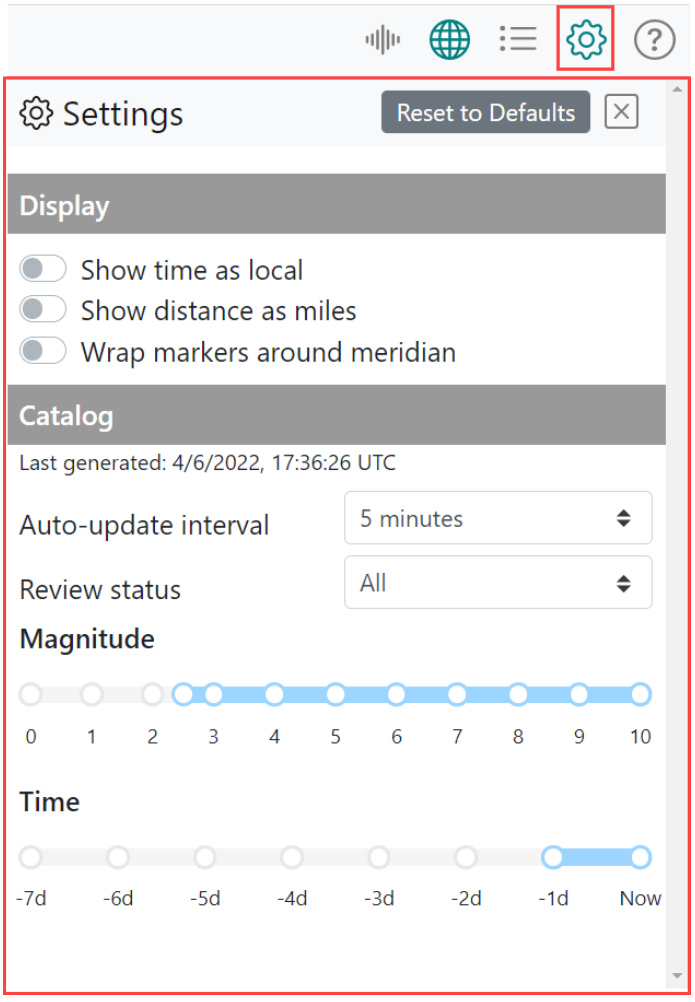
Product	Description
Did You Feel It (DYFI)?	Collection of information from people who felt an earthquake, resulting in maps that show what people experienced and the extent of damage
Focal-mechanism	A graphic symbol that visually represents the style of faulting (focal mechanism) derived from the estimated moment tensor
Ground Failure	Provides near-real-time spatial estimates of earthquake-triggered landslides and liquefaction hazards following significant earthquakes worldwide
Links	Links to tsunami warnings or additional waveforms; however, there could be other types of links, and it is up to the sender (regional seismic network, tsunami warning center, etc.) to decide what links to send out.
Moment Tensor	A mathematical representation of the movement on a fault during an earthquake
Nearby Cities	Data about cities near the event
OAF	Operational Aftershock Forecasting, an important post-earthquake scientific response to reduce seismic risks after a main shock
Origin	Date and time when the earthquake initiates rupture, known as the "origin" time
PAGER	Provides fatality and economic loss impact estimates following significant earthquakes worldwide
Phase Data	A description of the motion of, or means of comparison of,

Product	Description
	periodic waves such as seismic waves
ShakeMap	Provides near-real-time maps of ground motion and shaking intensity following significant earthquakes

6 SETTINGS

To configure CISN Display Web settings, click the **Settings** icon in the menu to bring up the **Settings** pane (Figure 35).

Figure 35. Settings Pane

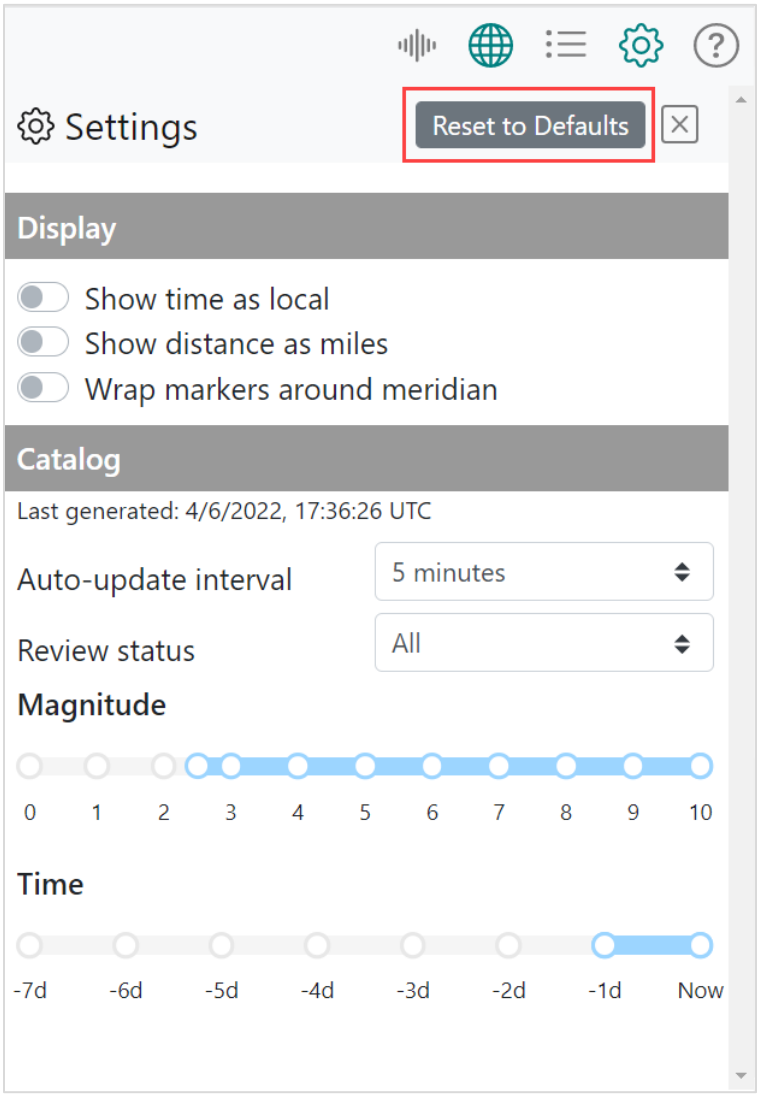


6.1 Reset to Defaults

To restore all settings to their default (original) values, from the **Settings** pane, click **Reset to Defaults** (Figure 36). This erases any settings from the current or past work sessions and restores CISN Display to its default state.

> **Note** Once you restore all settings to their default values, your previous settings no longer exist; however, any settings you configure from this point forward will be saved, unless or until you click **Reset to Defaults** again. For more information about your settings as a user, see Section 2.3 - User Settings.

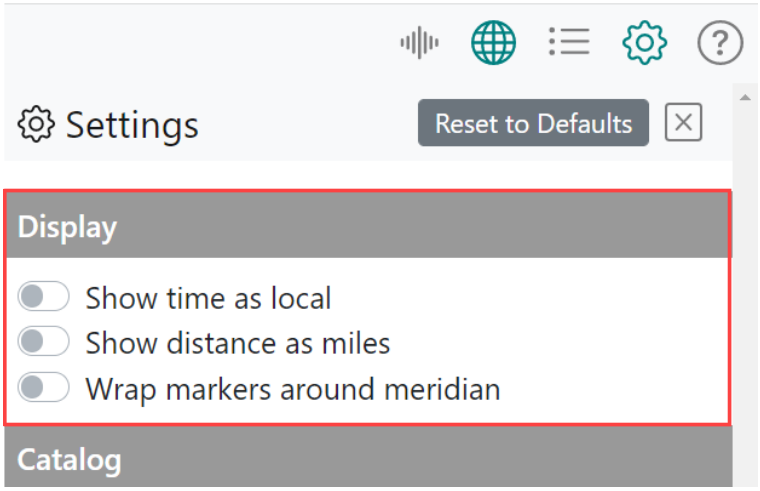
Figure 36. Reset to Defaults



6.2 Display

You may configure display options for time, distance, and wrapping markers around meridians (Figure 37).

Figure 37. Display Options



6.2.1 Show Time as Local

By default, CISN Display Web shows the time as Coordinated Universal Time (UTC). If you prefer to show your local time instead, turn on the **Show time as local** toggle.

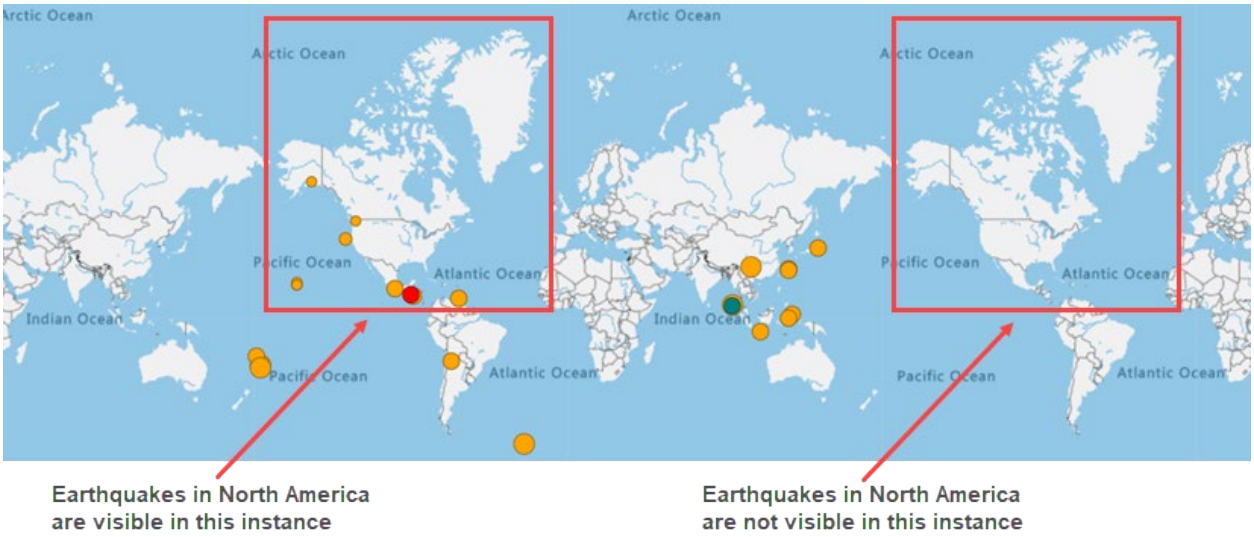
6.2.2 Show Distance as Miles

By default, CISN Display web shows the distance in kilometers. If you prefer to show distance in miles instead, turn on the **Show distance as miles** toggle.

6.2.3 Wrap Markers Around Meridian

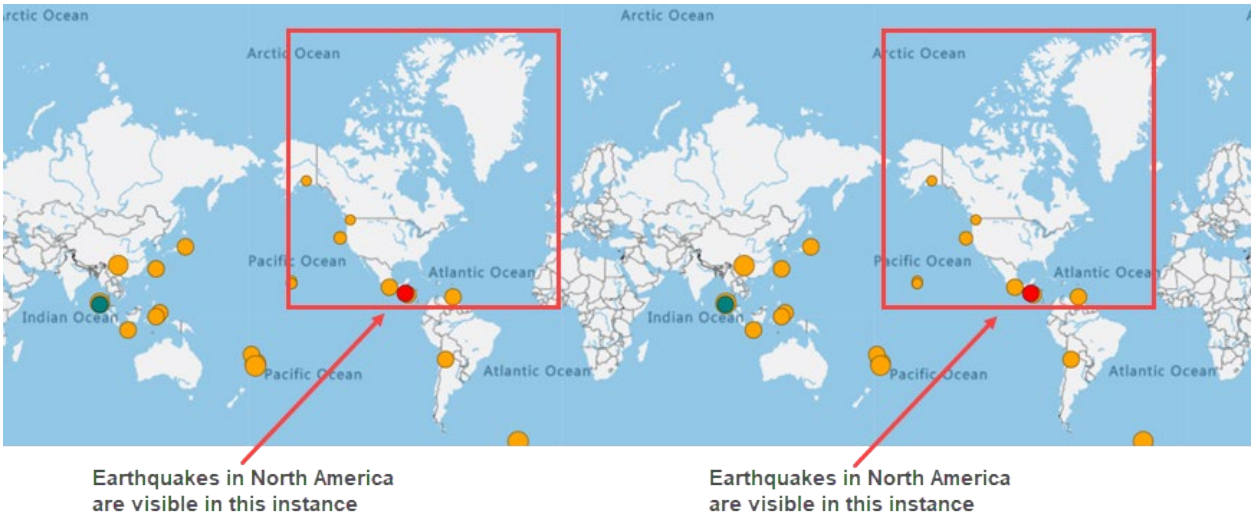
By default, the **Wrap markers around meridian** setting is toggled off. Wrapping markers around a meridian repeats earthquake markers when multiple versions of the world are shown on the map. To explain further, consider that when you select **World** as a preset region to zoom to, you see a continuous view of the world (Figure 38 shows what the map looks like with the **World** preset enabled and zoomed out to the highest level possible – you see two instances of North America). Because the **Wrap markers around meridian** setting is turned off, North America's earthquakes *are visible in the leftmost instance*, but they *are not visible in the rightmost instance*. The earthquake markers do not repeat in the next instance of an area (in this case, North America) when you are looking at a continuous view of the world.

Figure 38. Example of Markers Wrapped Around Meridian Turned Off



When the **Wrap markers around meridian** setting is toggled on, you see that North America's earthquakes are visible in both instances (Figure 39).

Figure 39. Example of Markers Wrapped Around Meridian Turned On



Note

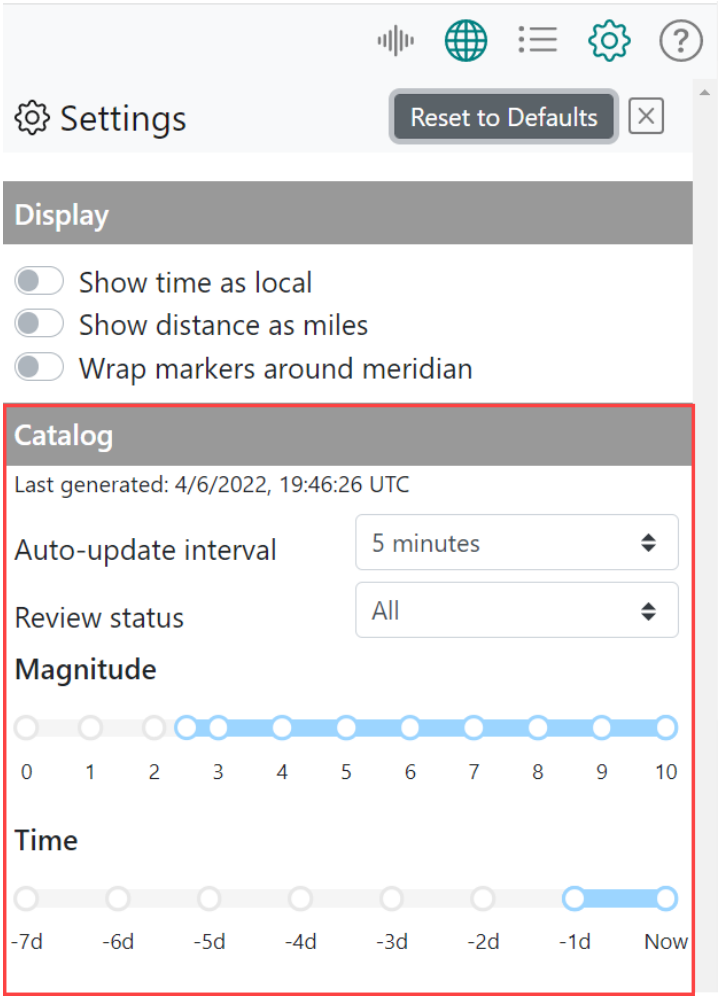
The **Wrap markers around meridian** option is off by default to ensure optimal application performance.

6.3 Catalog

Catalog refers to the earthquake data, which is sourced from the ANSS Comprehensive Earthquake Catalog. The catalog is provided to CISN Display Web end users courtesy of the partnership between CalOES and CGS.

You may configure the earthquake catalog by auto-update interval, review status, magnitude, and time (Figure 40).

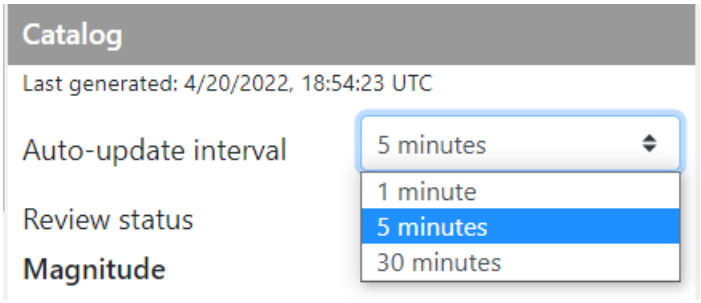
Figure 40. Catalog Options



6.3.1 Auto-Update Interval

By default, CISN Display Web automatically pulls updates from the ANSS Comprehensive Earthquake Catalog every 5 minutes; however, as shown in Figure 41, you can configure the updates to occur every minute or every 30 minutes. Note that the date and time of the last automatic update are displayed just under the *Catalog* heading.

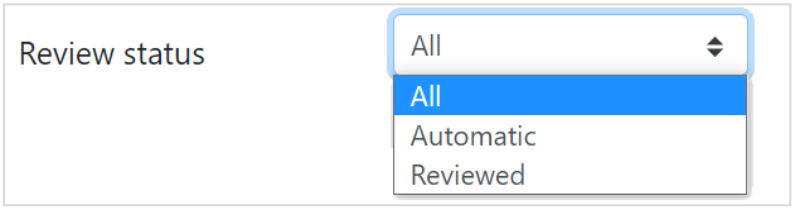
Figure 41. Auto-Update Interval Options



6.3.2 Review Status

By default, CISN Display Web shows all events in the catalog, both automatic and reviewed; however, you can choose to show only automatic or only reviewed events. Select one of these options from the dropdown list (Figure 42).

Figure 42. Review Status Options



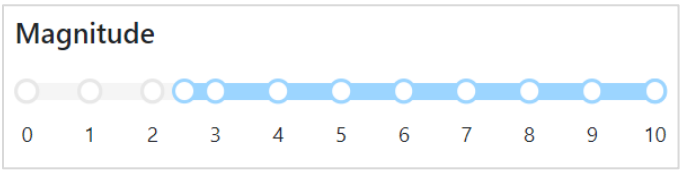
Note

Reviewed = a human has reviewed the event
Automatic = a human has not reviewed the event

6.3.3 Filter by Magnitude

By default, CISN Display Web filters the catalog by magnitudes of 2.5 to 10. To enable the filtering of settings, CISN Display uses sliders, which are described in Section 2.1.4 - Sliders. Figure 43 shows what these settings look like in the user interface.

Figure 43. Default Magnitude Filter Settings

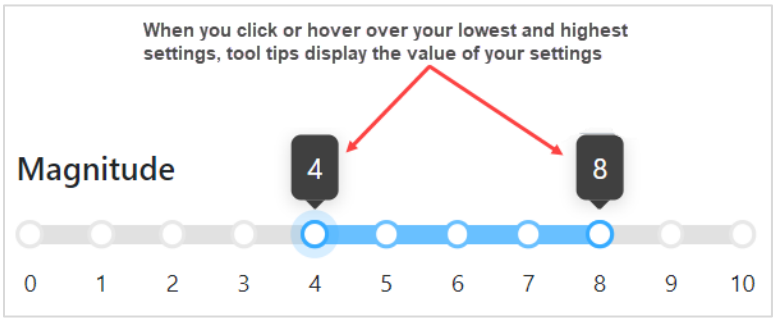


Move the slider to increase or decrease the magnitude for events to display in CISN Display Web. As you move the magnitude filter slider, the earthquakes listed in the map and list will update automatically to reflect your new magnitude settings.

> **Note** Hover over or click your lowest and highest settings to see tooltips that display the value of your settings.

Figure 44 shows an example of a magnitude setting that displays only events that have magnitudes of 4 to 8.

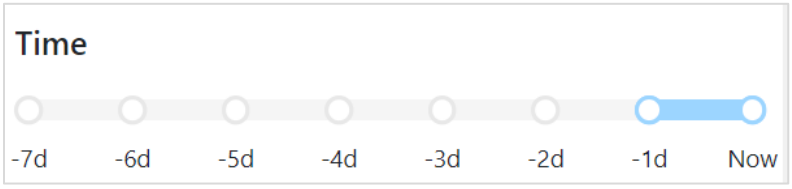
Figure 44. Example of Newly Configured Magnitude Filter Settings



6.3.4 Filter by Time

By default, CISN Display Web filters the catalog to show events that occurred in the last [1] day to now (last 24 hours as of current time). To enable the filtering of settings, CISN Display uses sliders, which are described in Section 2.1.4 - Sliders. Figure 45 shows what these default settings look like in the user interface.

Figure 45. Time Filter

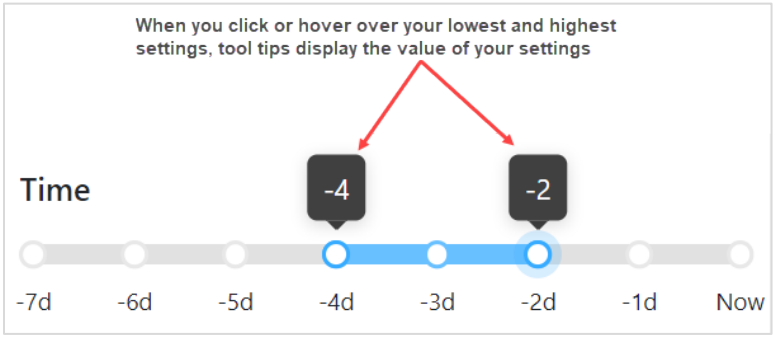


Move the slider to increase or decrease the time (in days) for events to display. As you move the time filter slider, the earthquakes listed in the map and list will update automatically to reflect your new time settings.

> **Note** Hover over or click your lowest and highest settings to see tooltips that display the value of your settings.

Figure 46 is an example of a time filter setting ranging from 4 days before the present day to 2 days before the present day.

Figure 46. Example of Newly Configured Time Filter Settings



6.4 Real-Time Notifications

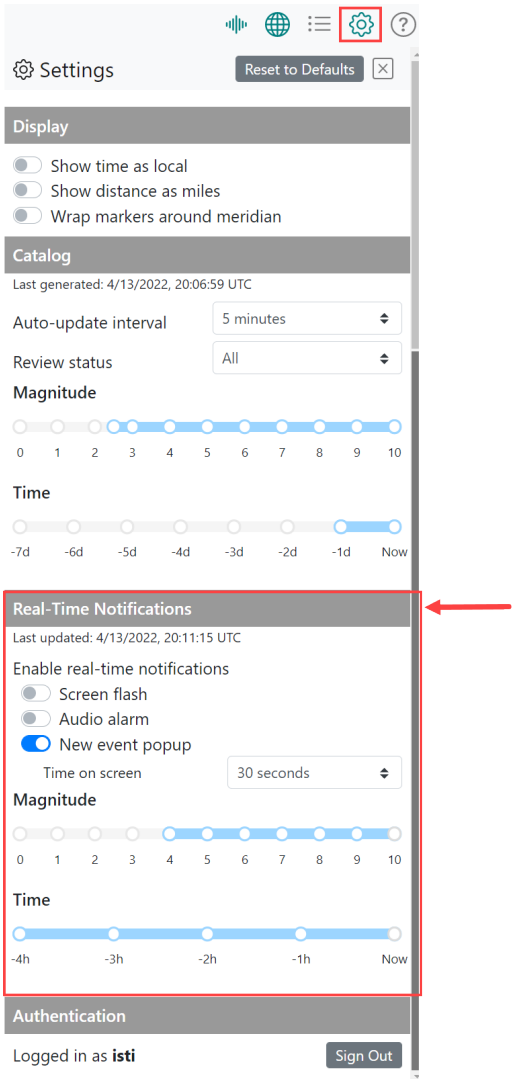
> **Note**
>
> This section of the user guide is for authenticated users only. Authenticated users are typically Emergency Responders who must have immediate access to earthquake hazard information.
>
> If you are authorized to receive real-time notifications, ask your emergency response manager for your login credentials.

As an authenticated user, CISN Display Web pushes real-time notifications about events to you as they happen, *but only when you are connected to the system*. For information about connecting to the system, see Section 2.3 - About User Authentication.

See Sections 4.5 - New and Updated Events in List and 6.4.1 - Enable Real-Time Notifications, 6.4.2 - Filter Real-Time Notifications by Magnitude, and 6.4.3 - Filter Real-Time Notifications by Time to learn about the additional features provided to authenticated users.

For authenticated users, the **Settings** pane has a Real-Time Notifications section where you can select options for how you are notified of new events (Figure 47).

Figure 47. Real-Time Notifications in Settings Pane

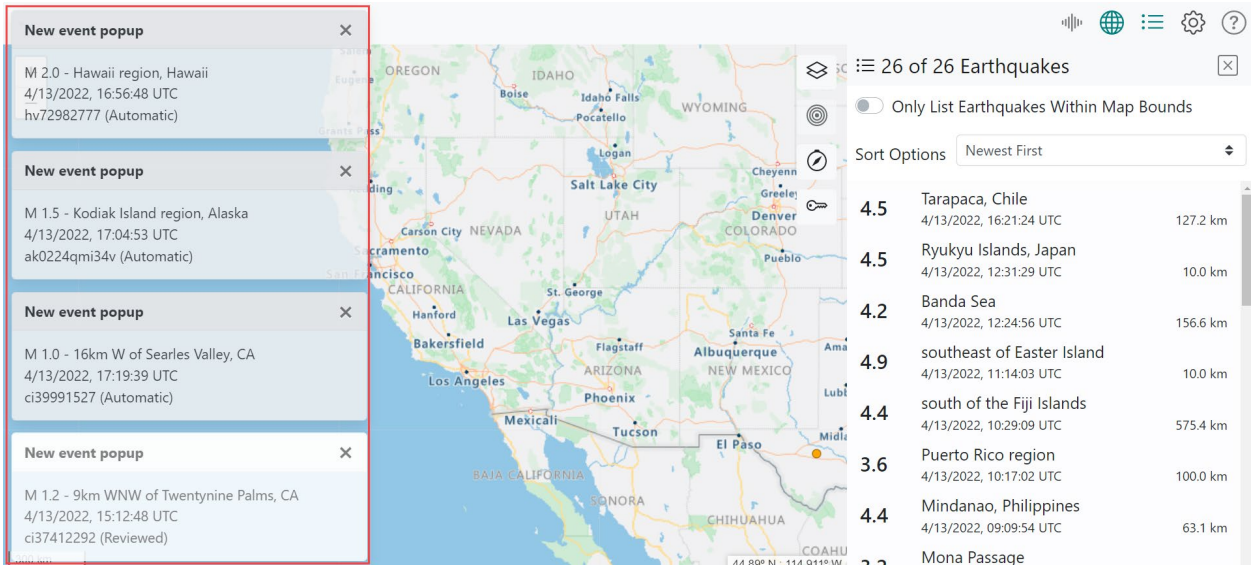


6.4.1 Enable Real-Time Notifications

Toggle on or off each of the following settings to select how you want to be notified of new events:

- **Enable Screen flash** - Your screen flashes red when a new event appears.
- **Enable Audio Alarm** - An alarm sounds when a new event appears.
- **Enable New Event Popup** (by default, this is set to on) - A popup containing new event summary information that appears on the left side of your screen. Figure 48 shows four New Event Popups displayed simultaneously on the screen.

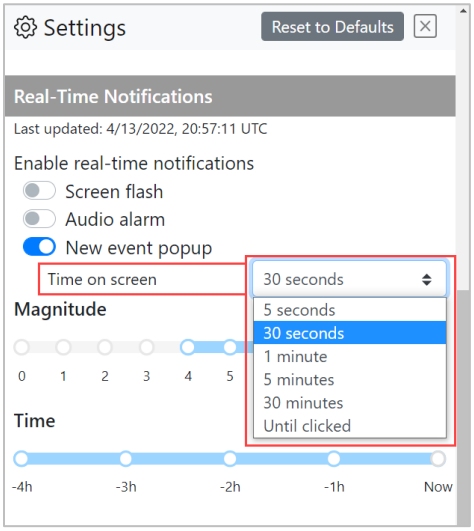
Figure 48. New Event Popups Displayed on Screen



New Event Popups are either white (reviewed by a human) or gray (automatic - not reviewed by a human).

To configure how long a New Event Popup will stay visible on your screen, select one of five options from the **Time on screen** dropdown shown in Figure 49. Note that one of the options is Until clicked, which keeps a New Event Popup displayed on your screen until you click the ☒ to close it.

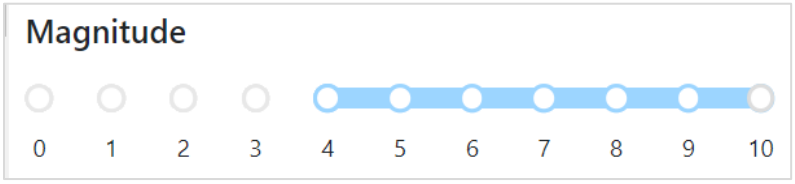
Figure 49. Options for New Event Popup Staying on Screen.



6.4.2 Filter Real-Time Notifications by Magnitude

By default, CISN Display Web filters real-time notifications by magnitudes of 4 to 10. To enable the filtering of settings, CISN Display uses sliders, which are described in Section 2.1.4 - Sliders. Figure 50 shows what these settings look like in the user interface.

Figure 50. Default Real-Time Notification Magnitude Filter Settings



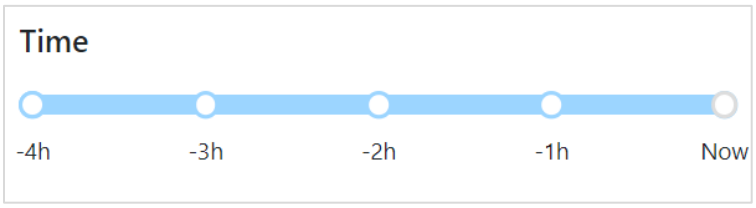
Move the slider to increase or decrease the magnitude for real-time events to display in CISN Display Web. As you move the magnitude filter slider, the new events shown in the map and list will update automatically to reflect your new magnitude settings.

Note: Hover over or click your lowest and highest settings to see tooltips that display the value of your settings.

6.4.3 Filter Real-Time Notifications by Time

By default, CISN Display Web filters the real-time notifications by events that occurred in the last four hours to now (current hour). To enable the filtering of settings, CISN Display uses sliders, which are described in Section 2.1.4 - Sliders. Figure 51 shows what these default settings look like in the user interface.

Figure 51. Default Real-Time Notification Time Filter Settings



Move the slider to increase or decrease the time (in hours) for events to display. As you move the time filter slider, the earthquakes listed in the map and list will update automatically to reflect your new time settings.

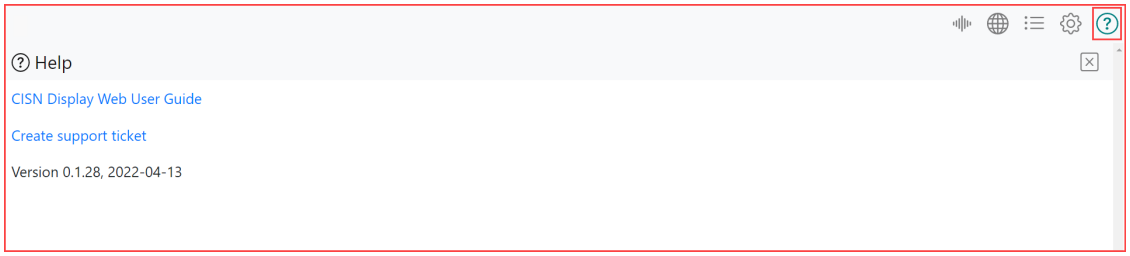
Note: Hover over or click your lowest and highest settings to see tooltips that display the value of your settings.

7 HELP

To get help with using CISN Display Web:

1. Click the **Help** icon on the menu. The **Help** pane opens to its full size (Figure 52).

Figure 52. Help Pane



2. Choose among the following options:
   a. **CISN Display Web User Guide** – to view the user guide.
   b. **Create support ticket** - your email program opens with a blank email containing the CISN Display Web Support email address.
      i. Enter a subject in the email subject line.
      ii. Describe your issue in the body of the email.
      iii. Press **Send**. CISN Display Web Support will review and address tickets.
3. Close the **Help** pane by re-clicking the **Help** icon or clicking . The system returns you to the panes you were previously working on.

> **Note** The version and date of the latest CISN Display Web release are displayed at the bottom of the **Help** pane.