Seismicity

The seismicity tab allows users to display earthquakes in a region over a specified period. *Figure 1* displays GeoGateway's Seismicity tab. The tab is split into two sections, "Recent Earthquakes from USGS" and "Search Earthquake Catalog."

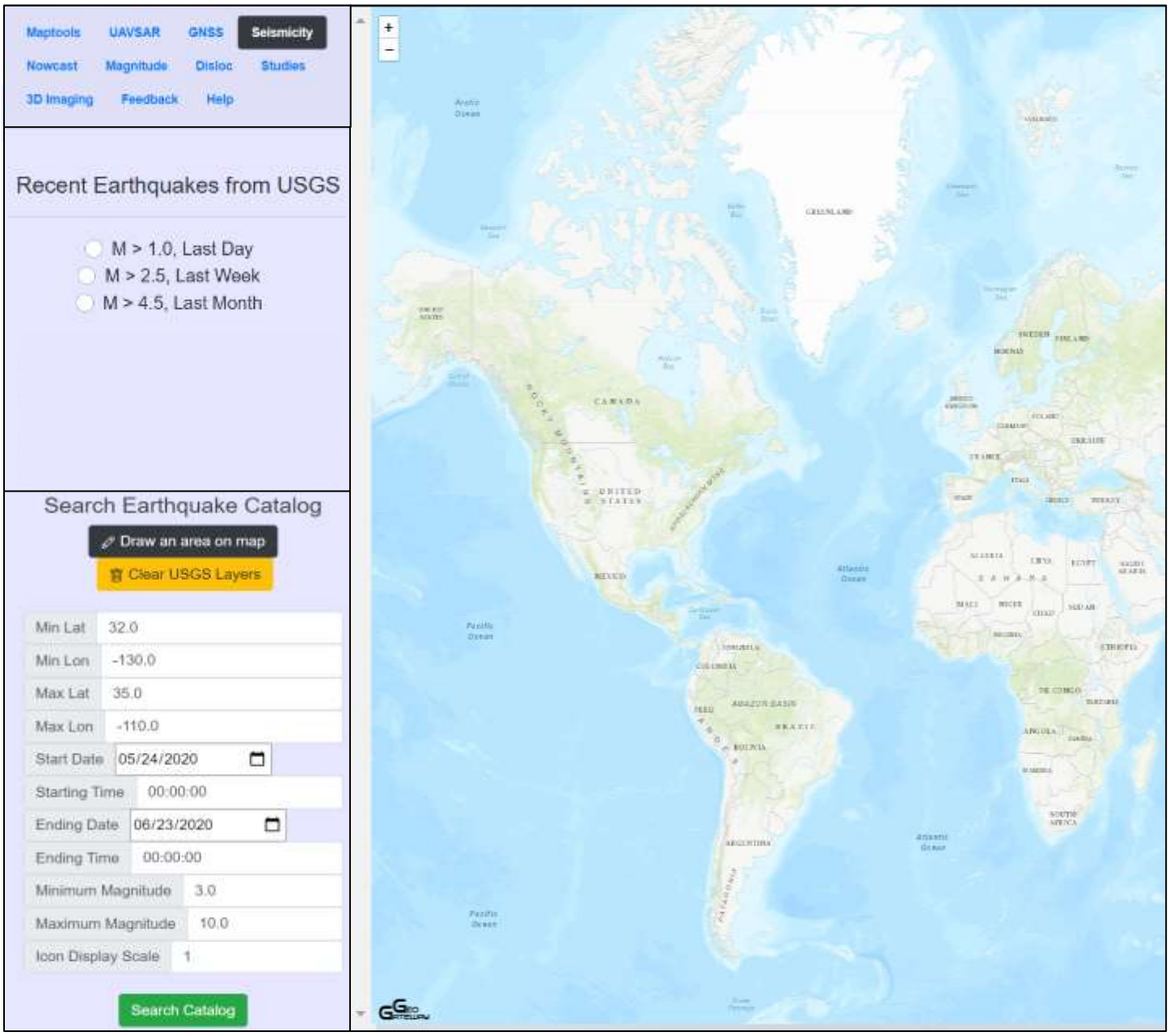

Figure 1: GeoGateway's Seismicity tab

The tab allows users to view recent earthquakes from USGS data. The USGS data can also be found on the USGS website earthquake.usgs.gov/earthquakes/map/. As shown in *figure 2*, the displayed earthquake events are color coded with the hotter colors representing recent events and the cooler colors representing less recent events.

Figure 2: GeoGateway's Seismicity tab - displaying seismic events greater than magnitude 2.5 in the last week.

Filters, such as **M > 1.0, Last Day**, **M > 2.5, Last week**, and **M > 4.5, Last Month** can be selected as shown in *figure 2*. As shown below, additional filters may be applied to generate recent earthquakes.

To search for a particular earthquake event, input specific parameters pertaining to the event in the **Search Earthquake Catalog** section.

Box 1-4 require users to input the latitudes and longitudes of the specified region. Users have the option to use the "Draw an area on map" feature to generate earthquake events onto the map based on the region drawn by the user.

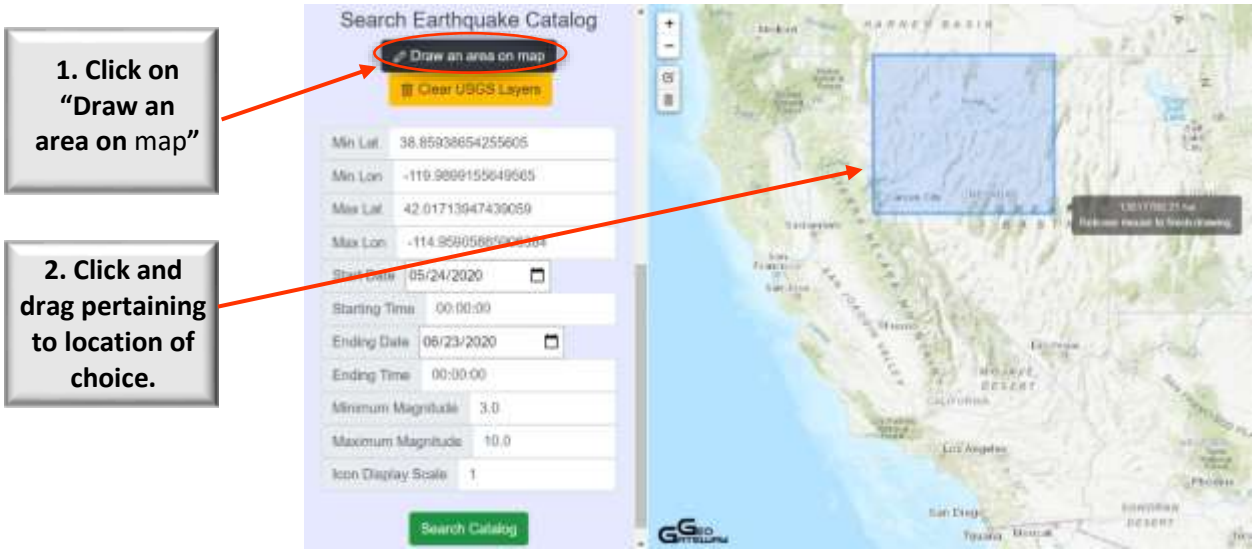

Figure 3: Draw an area on map option

Box 5-8 require data regarding the range of date and time of interest.
Box 9-10 require the range of chosen magnitude.
Box 11 requires the user to scale the size of the icon of the earthquake event, by inputting a number (larger number = larger icon).

By clicking on **Search Catalog** earthquake events based on the given parameters inputted by the user are shown on the map.

To clear the inputted USGS data, click on **Clear USGS Layers** right below to **Draw an area on map** option.

Moreover, users are given the option to download "USGS KML" and "GeoJSON."

Figure 4: Download USGS KML and GeoJSON.