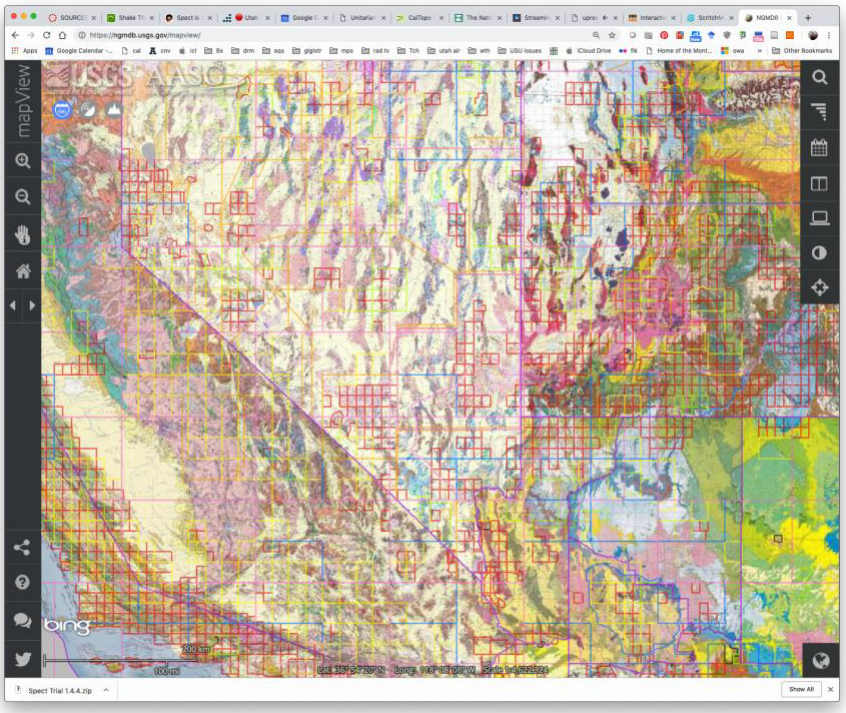
Table 1. Sources of digital geologic, topographic, and geophysical data: Explore these sources. Compiled by Dr. Susanne U. Jänecke, Utah State University, 2021. Most of these web sites are in constant use amongst geoscientists. All items are FREE

Name	URL	Main use and notes
USGS Geologic map database- Select Mapview		Access to digitized geologic maps, cross sections, unit descriptions, and tons more info. MAPVIE W allows downloads in GoogleEarth format when author is at USGS.
	https://ngmdb.usgs.gov/ngmdb/ngmdb_home.html	
Mapview in USGS Geologic map database, TopoView, StratView, Etc		
	https://ngmdb.usgs.gov/mapview/	
	https://ngmdb.usgs.gov/topoview/	

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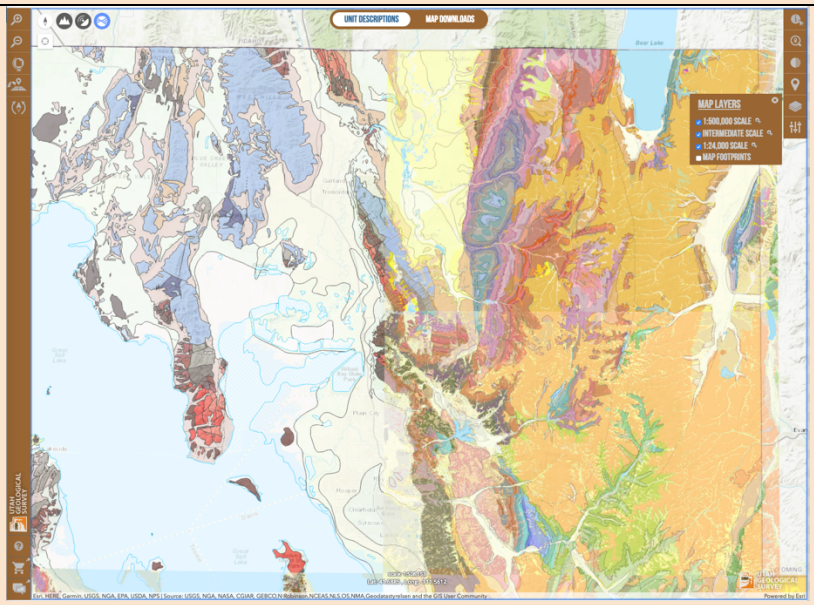
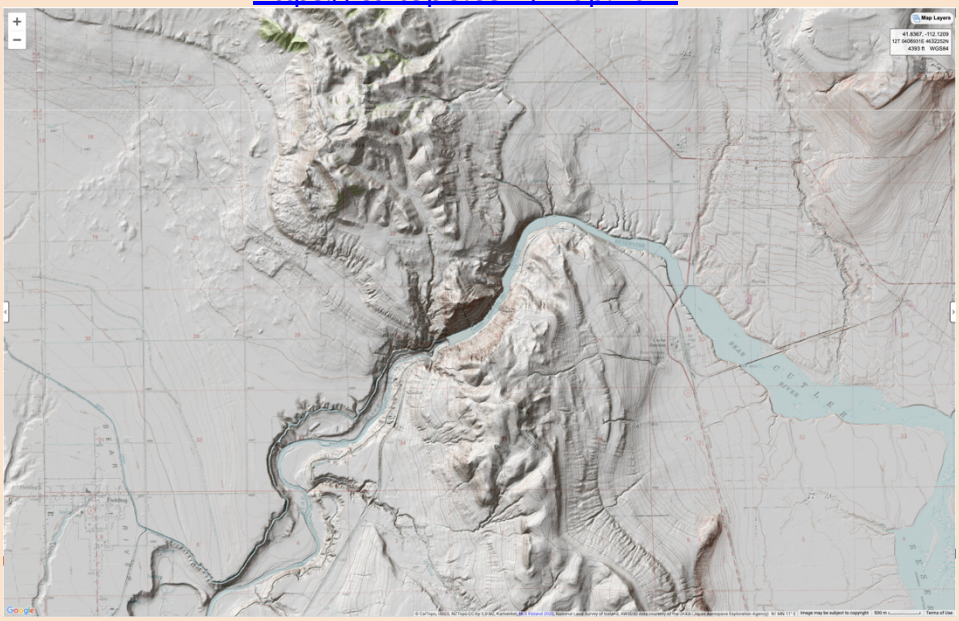
	https://ngmdb.usgs.gov/topoview/viewer/#4/40.01/-99.93	

Name	URL	Main use and notes
Utah Interactive Geologic map	 https://geology.utah.gov/resources/data-databases/interactive-maps/ https://geology.utah.gov/apps/intgeomap/	NOTE-select either to check for rock descriptions or for downloads of geologic maps
CalTopo is an amazing source of maps	https://caltopo.com/map.html  Caltopo lets you create all sorts of dems, topo, and hillshade maps	West edge of Cache Valley looks like this in the so-called "normal" layer with the USGS topographic maps included.

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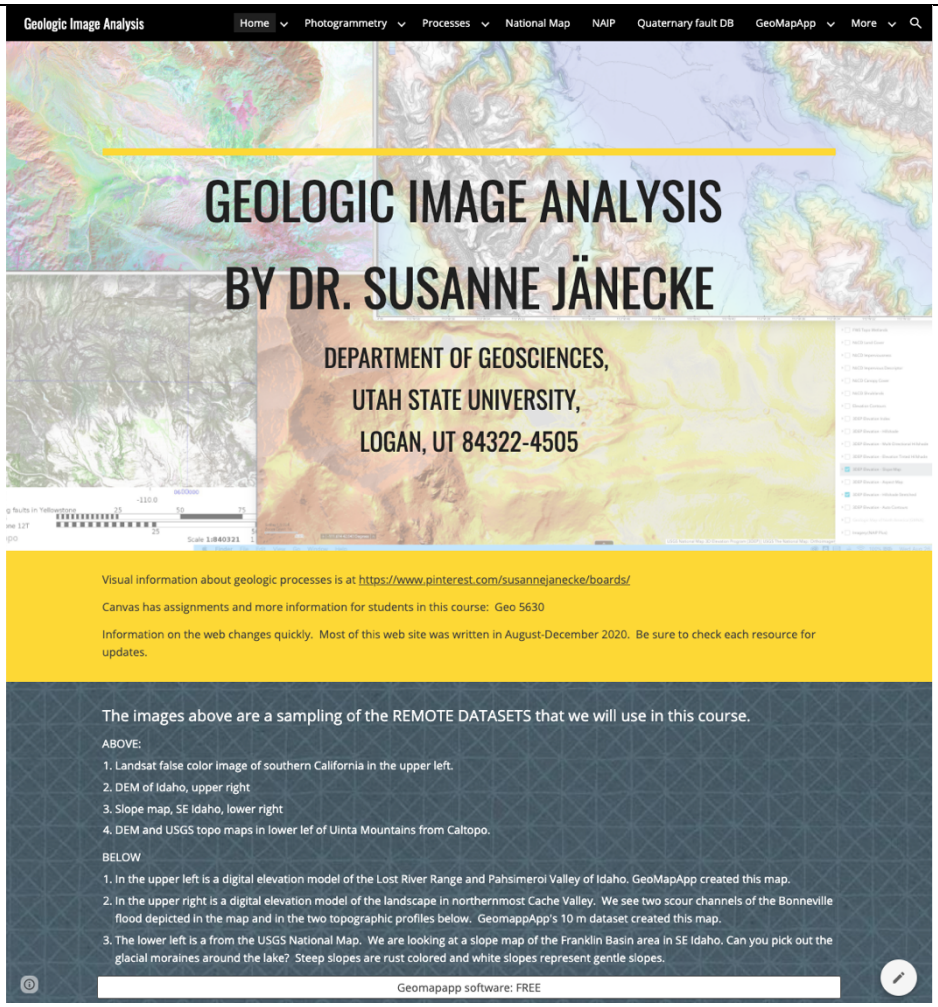
This entire free web site describes uses and sources of imagery in the Geosciences. Dr. Susanne Janecke created this site to distill material from her Geo 5630 class.		Almost all the datasets described in this handout are explained in more detail in my web site. Menu items across the top facilitate navigation. There are submenus below each master heading as well.
	https://sites.google.com/aggiemail.usu.edu/geo-image-janecke/home	

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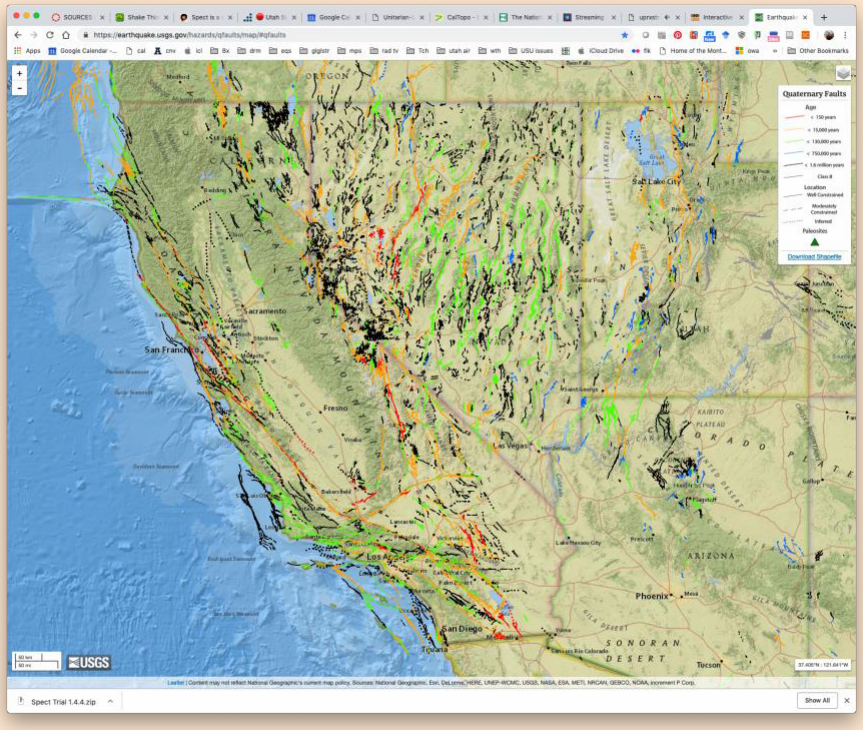
USGS fault and fold database	 https://usgs.maps.arcgis.com/apps/webappviewer/index.html?id=5a6038b3a1684561a9b0aadf88412fcf	download the Google Earth files for future use

Name		Main use and notes
	URL	

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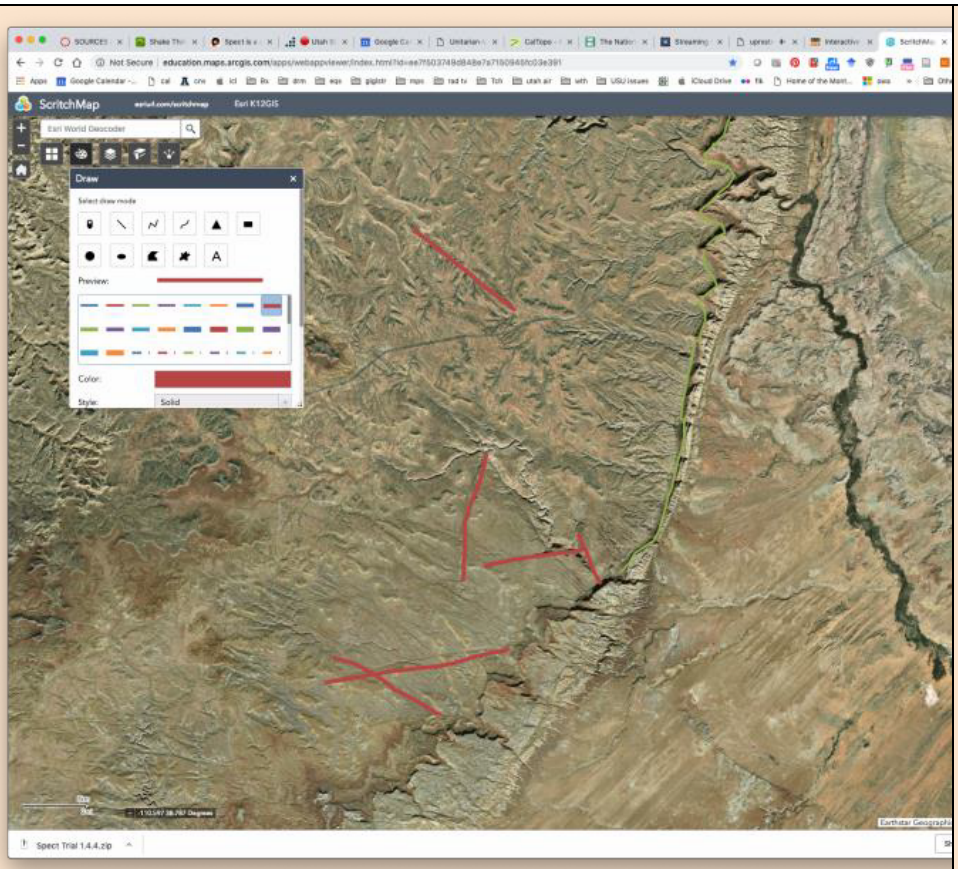
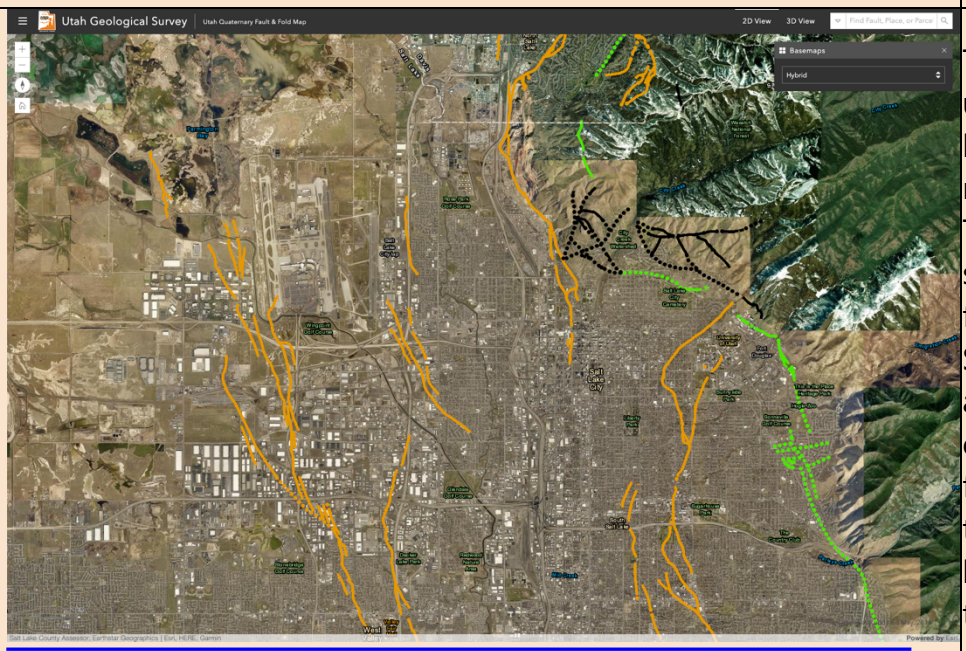
Scritch	 http://education.maps.arcgis.com/apps/webappviewer/	This web=application lets a user annotate a satellite or terrain map and capture the result in a screen capture. Edits are not possible, nor are saves . The image on the left is an example of an annotated ESRI Satellite image.
Name	URL	Main use and notes
Utah Quaternary fault and fold database	 https://geology.utah.gov/apps/qfaults/index.html	This is not entirely up-to- date but it is better than the national version. The map at left shows many active faults between the Salt Lake Airport and the University of Utah. Orange faults are most likely to produce another large earthquake than green or black ones.

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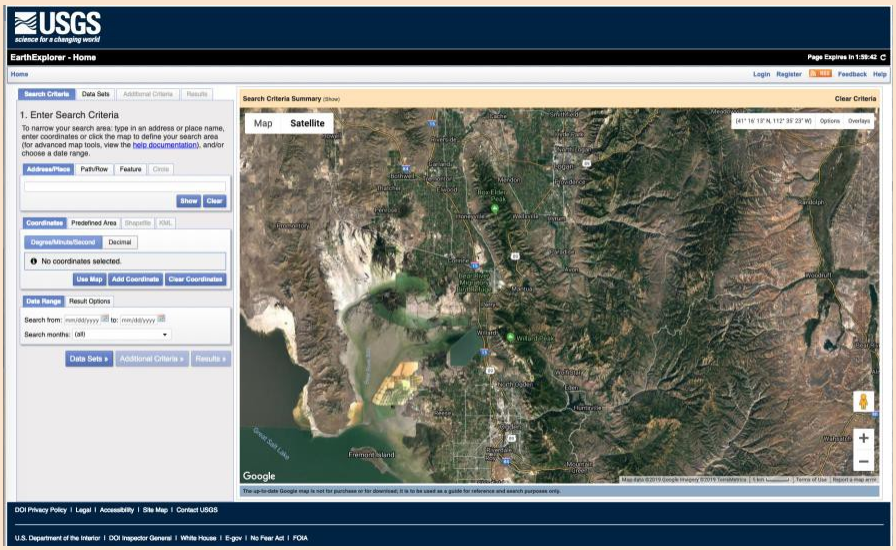
Earth Explorer	 https://earthexplorer.usgs.gov/	Earth Explorer is the best portal for downloading national imagery and datasets. You can download satellite imagery (Landsat and Sentinel), stereo sets of Aerial photographs, and much much more. States also hold data and you may not be able to locate all the data of interest using Earth Explorer. It is the place to start first.

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Name	URL	Main use and notes
GeoMap App	 http://www.geomapapp.org/ Check out the many tutorials on YouTube. http://www.geomapapp.org/tutorials/ GeoMapApp.org	Topo maps, colored dems, overlays, geophysical data, visualizing your own xyz datasets, making profiles and much more. Geologic and Geophysical data are available for national and states, more detailed resources are in USGS geologic map database (item 2)

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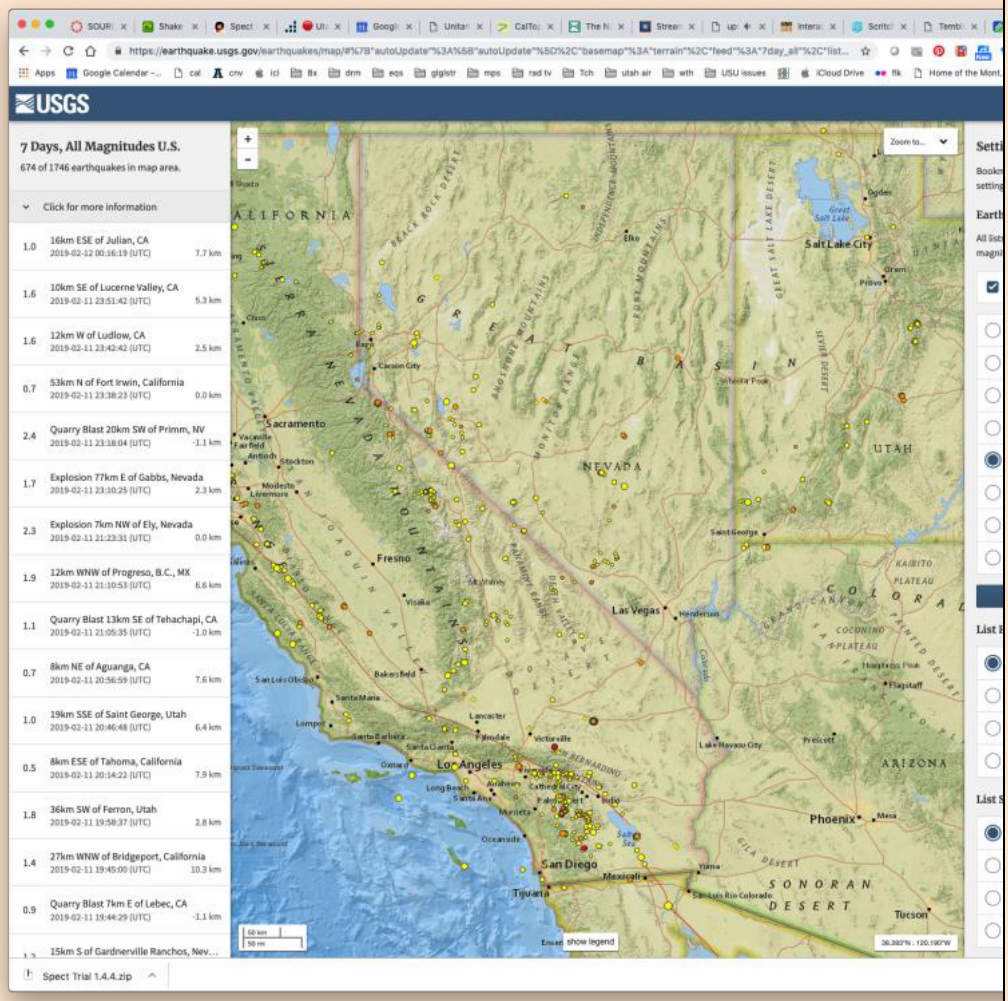

https://earthquake.usgs.gov/earthquakes/map/?extent=17.05678,-134.38477&extent=57.16008,-71.71875&range=month&magnitude=all&showUSFaults=true&baseLayer=terrain&settings=true

https://earthquake.usgs.gov/earthquakes/map/?extent=-87.11476,-368.78906&extent=87.09701,132.53906&range=month&magnitude=all&settings=true

https://earthquake.usgs.gov/earthquakes/map/?extent=16.17247,-139.87793&extent=56.65623,-77.21191&magnitude=all&showUSFaults=true&baseLayer=satellite&settings=true

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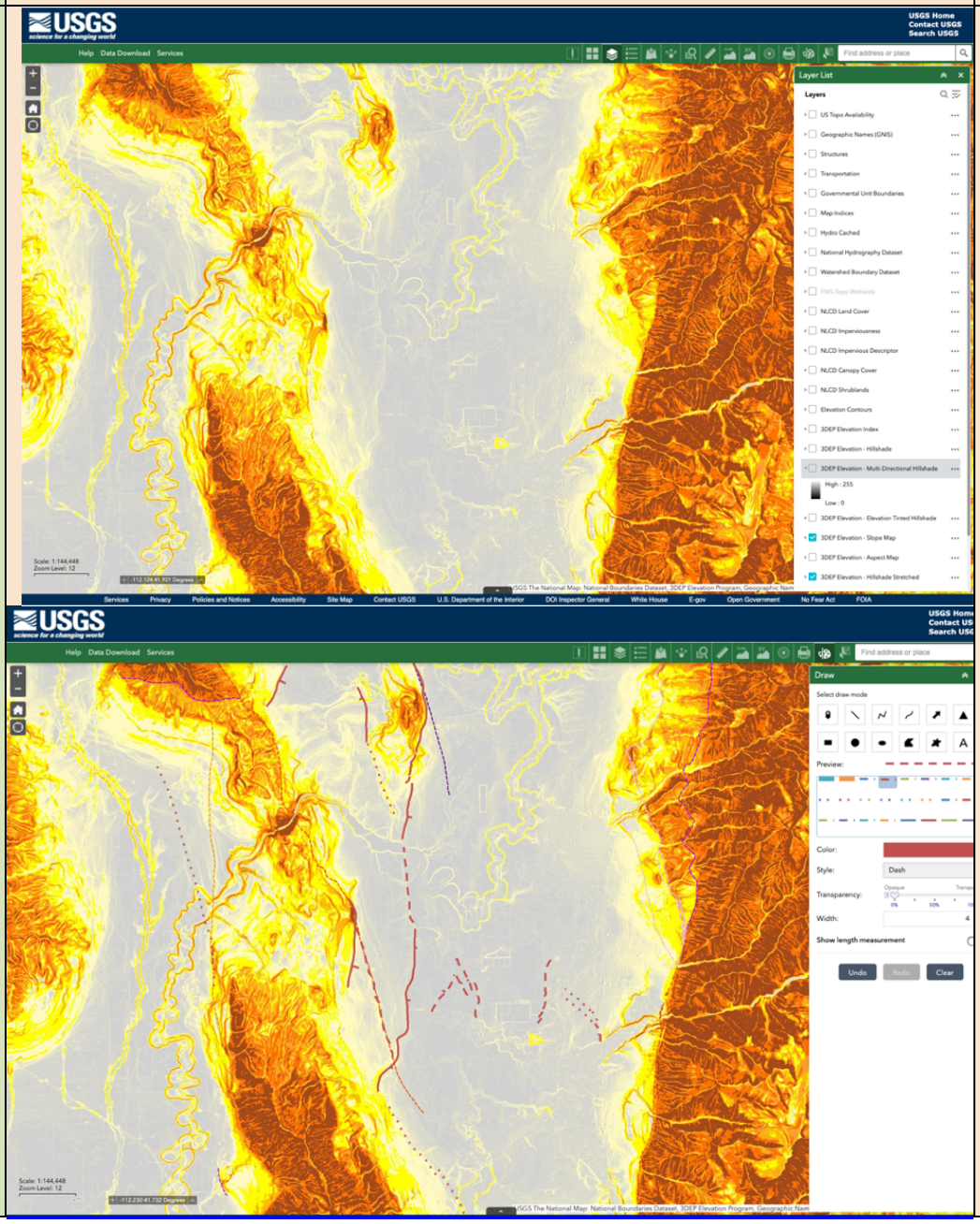
	URL	
Name	National Map The National MAP ROCKS!!!!!! Check it out. There is LIDAR for super simple, no effort viewing, you can identify the elevation of points, make simple topographic profiles, view excellent slope maps and tons more. The National map is mostly to see imagery and it is not set up as well for downloading and processing data. Caltopo.com and Earth explorer do that for you.	Main use and notes
National Map		

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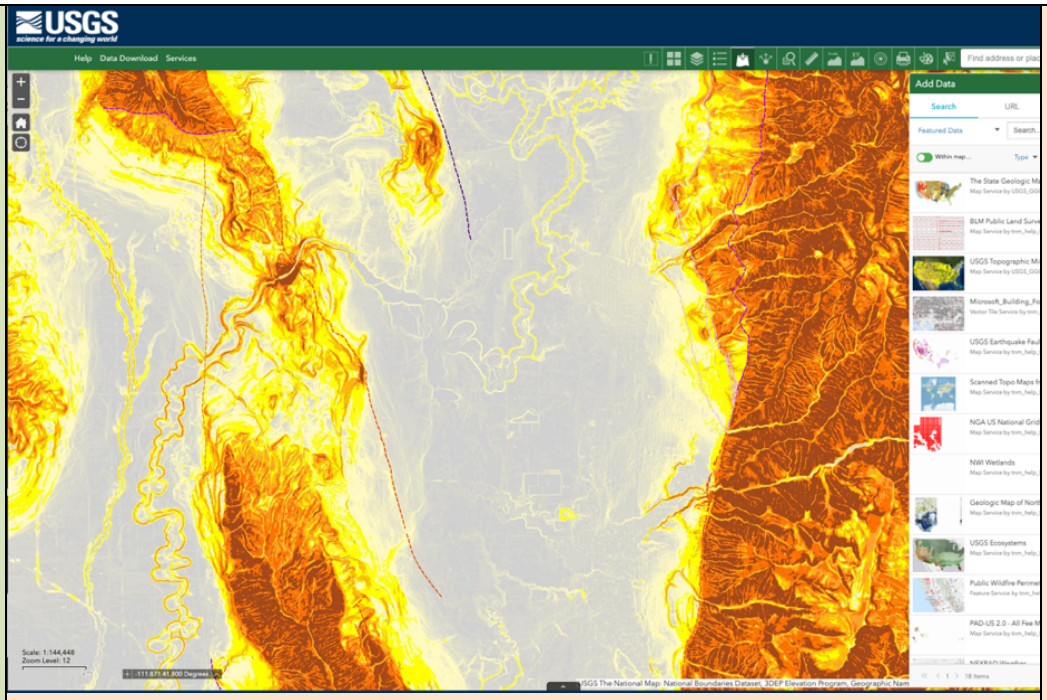

Make a screen capture once you have worked for some time in order to preserve your work. Sharing a link to a specific location is possible but this feature does not work on a mac computer.

Notice that this is different than the official Qfaults map, in the panel above, shows. https://apps.nationalmap.gov/viewer/

You can, however, annotate the imagery that you see in the National map using their "paint" tools. The middle map has several active faults marked with the red line tool. Notice that this is different than the official Qfaults map, in the bottom panel, shows. Make a screen capture once you have worked for some time in order to preserve your work. Sharing a link to a specific location is possible but this feature does not work on a mac computer. Caltopo.com does a better job of visualizing these kinds of data but both web sites are useful.

Name	URL	Main use and notes

Name	URL	Main use and notes
desktop version is better	There is more functionality in the stand-alone application than the browser version. Please download it and use it. https://www.google.com/earth/download/gep/agree.html	the browser version.
interactive maps of Australia	http://www.ga.gov.au/interactive-maps/#/ http://www.ga.gov.au/interactive-maps/#/theme/minerals/map/geology http://www.ga.gov.au/interactive-maps/#/theme/minerals/map/geophysics	Geology, geophysics, hazards and much more
Historic topo map collection	https://nationalmap.gov/historical/	
LIDAR	NOTICE than National map allows viewing of much LIDAR without laborious downloading process. Be sure to zoom into the area. LiDAR shows up at max magnification.	
OpenTopoGraphy	https://opentopography.org/ https://opentopography.org/start	
NCaLM	http://calm.geo.berkeley.edu/ncalm/ddc.html This link takes you to many processed files and overlays that are already transformed into overlays in Google Earth. The main home page is here: http://ncalm.cive.uh.edu/ http://opentopo.sdsc.edu/lidar?format=ge	NCALM is more likely to have LIDAR datasets that have bee preprocessed into GoogleEarth overlays for rapid viewing.
B4 project	https://u.osu.edu/b4lidar/ https://u.osu.edu/b4lidar/welcome/google-earth-kml-files/	NCALM has it too.

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UTAH	AGRC https://gis.utah.gov/data/elevation-and-terrain/exploring-lidar/ https://gis.utah.gov/data/elevation-and-terrain/	
Geophysical datasets	look in the menus of GeoMapApp for such data	
Magnetic and gravity map of every state. Some examples.	ftp://ftpext.usgs.gov/pub/cr/co/denver/musette/pub/NA_MAGNETIC S/digital_data/ https://pubs.usgs.gov/ds/2006/234/	Google "gravity/isostatic /OR OR bouguer/OR aeromagnetic map

Name	URL	Main use and notes
	https://mrdata.usgs.gov/catalog/cite-view.php?cite=81 https://pubs.usgs.gov/ds/352/arkla.html https://web.mst.edu/~sgao/maps/ https://mrdata.usgs.gov/catalog/cite-view.php?cite=61 https://pubs.usgs.gov/ds/2006/234/ https://pubs.usgs.gov/ds/2006/232/ ftp://ftpext.usgs.gov/pub/cr/co/denver/musette/pub/NA_MAGNETICS/USStates3.html	STATENAME usgs" to bring up each
See gravity layers in Geomapapp	and also https://web.mst.edu/~sgao/maps/US_Bouguer_gravity.jpg	

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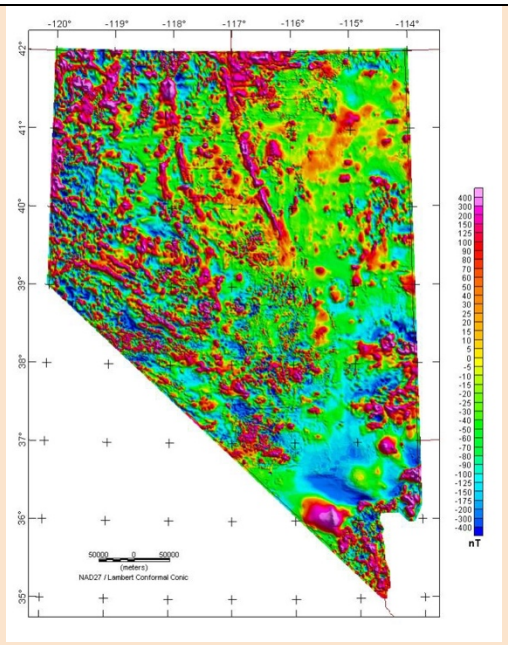
See magnetic layers in Geomapapp	and also  https://pubs.usgs.gov/of/2002/ofr-02-361/mag_home.htm	
see seismic layers in See gravity		
Name	URL	Main use and notes
layers in Geomapapp		
Geothermal info-interactive map	https://www.americangeosciences.org/critical-issues/maps/interactive-map-geothermal-resources-united-states https://web.mst.edu/~sgao/maps/	
See my compilation at	https://www.pinterest.com.au/susannejanecke/geology-web-sites- with-strong-science-content/	
AGI compiled sources of data and interactive maps	https://www.americangeosciences.org/critical-issues/search-maps- visualizations	

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Google Earth in Browser**see note about	https://earth.google.com/	There is more functionality in the stand-alone application than
Aerial photos in California scanned stereo sets historic	https://www.library.ucsb.edu/src/collections-aerial-photography	

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