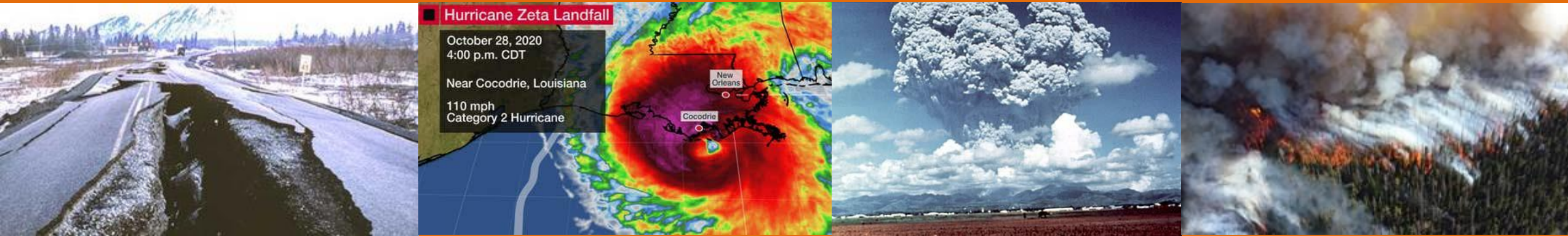


# Library Research for Natural Hazard Events: Earthquakes, Hurricanes, Volcanoes, and Wildfires



Presented by Emily C. Wild, Chemistry, Geosciences and Environmental Studies Librarian  
[ewild@princeton.edu](mailto:ewild@princeton.edu)

## About the Instructor



**Emily C. Wild**

**Schedule a Research Consultation:  
Monday – Friday**

**email me [ewild@princeton.edu](mailto:ewild@princeton.edu)**

**[Meet Our Specialists – Emily Wild](#)**

**<https://www.linkedin.com/in/emilycwild/>**

**<https://orcid.org/0000-0001-6157-7629>**

**Princeton University Library, 2018-Present**

**Chemistry, Geosciences and Environmental Studies Librarian**

**About 75% of my research inquires = worldwide USGS info**

**<http://library.princeton.edu>   <http://geosciences.princeton.edu>**

**Emily Wild joined Princeton University Library in 2018 as the Chemistry and Geosciences Librarian. From 1996 to 2018, she was a hydrologist and librarian (physical scientist) at the U.S. Geological Survey. She has a Bachelor of Arts in Geology from Hartwick College and a Master of Library and Information Studies from the University of Rhode Island. Emily's scholarly interests include library instruction; reference, citation and data management; raw and geospatial datasets; and physical and laboratory sampling methods.**

**Working remotely since March 2020**

**Using libraries remotely since 1988**

**[From hurricanes to astrogeology:  
Princeton's geosciences librarian and  
collections serve national,  
international communities](#)**

# Geosciences Library Instruction

<https://libguides.princeton.edu/geo/librarianwebinars>

Since 1884, Princeton University has participated in the Federal Depository Library Program (FDLP): <https://www.fdlp.gov/>

FDLP Academy Training Repository : <https://www.fdlp.gov/fdlp-academy/fdlp-academy-training-repository>

## Upcoming Chemistry, Geosciences, and Environmental Studies webinars

December 17, 2020 at 2 p.m. : From the Rocks to the Stocks - Library Research with a Geosciences Librarian and a Finance Librarian

November 24, 2020 at 2 p.m. : Using Art Sources for Chemistry, Geosciences, and Environmental Studies Library Research <https://www.fdlp.gov/news-and-events/4756-webinar-using-government-art-sources-for-chemistry-geosciences-and-environmental-studies-library-research>

October 29, 2020 at 2 p.m. : Library Research for Natural Hazard Events: Earthquakes, Hurricanes, Volcanoes, and Wildfires - To register for this free webinar, please refer to: <https://libcal.princeton.edu/event/7165734> or <https://www.fdlp.gov/news-and-events/4696-webinar-library-research-for-natural-hazard-events-earthquakes-hurricanes-volcanoes-and-wildfires>

## Past Chemistry, Geosciences, and Environmental Studies webinars, Princeton University

September 2020 : Pharmaceutical Research Sources Available for COVID-19 <https://www.fdlp.gov/pharmaceutical-research-sources-available-for-covid-19>

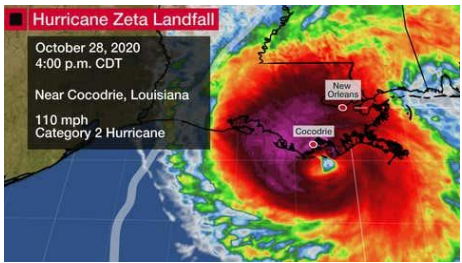
August 2020: Library Research for Energy, Minerals, and Uranium Resources <https://www.fdlp.gov/library-research-for-energy-mineral-and-uranium-resources>

July 2020 : Library Research for Atmospheric and Oceanic Sciences (Including Climate Change) <https://www.fdlp.gov/library-research-for-atmospheric-and-oceanic-sciences-including-climate-change>

March 2020: Library Research for Water Resources <https://www.fdlp.gov/library-research-for-water-resources>

January 2020: Introduction to Geosciences Library Research <https://www.fdlp.gov/introduction-to-geosciences-library-research>

# Overview



**Earthquakes**

**Hurricanes**

**Volcanoes**

**Wildfires**

**Online Talks**

**Education**

**Data/Maps**

**Publications**

<https://www.usgs.gov/faq/natural-hazards>

<https://www.usgs.gov/products/data-and-tools/real-time-data>

# Earthquakes

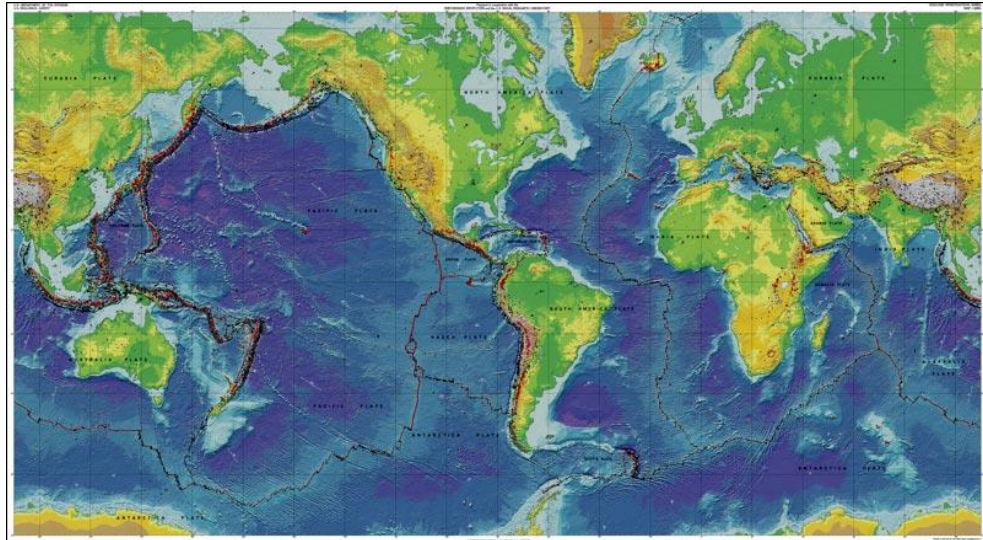
Harry Hess

<https://www.geolsoc.org.uk/Plate-Tectonics/Chap1-Pioneers-of-Plate-Tectonics/Harry-Hess>

Harry Hess was a professor of geology at Princeton University (USA), and became interested in the geology of the oceans while serving in the US Navy in World War II. His time as a Navy officer was an opportunity to use **sonar** (also called echo sounding), then a new technology, to map the ocean floor across the North Pacific.

He published '**The History of Ocean Basins**' in 1962, in which he outlined a theory that could explain how the continents could actually drift. This theory later became known as '**Sea Floor Spreading**'.

Hess discovered that the oceans were shallower in the middle and identified the presence of **Mid Ocean Ridges**, raised above the surrounding generally flat sea floor ([abyssal plain](#)) by as much as 1.5 km. In addition he found that the deepest parts of the oceans were very close to continental margins in the Pacific with Ocean Trenches extending down to depths of over 11 km in the case of the Marianas Trench off the coast of Japan.



## The History of Ocean Basins

<https://pubs.geoscienceworld.org/books/book/847/chapter/3918672/History-of-Ocean-Basins>

# Earthquakes

## Geosciences Lecture Series: Fifty Years of Plate Tectonics

[https://mediacentral.princeton.edu/media/Geosciences+Lecture+SeriesA+Fifty+Years+of+Plate+Tectonics/1\\_xtgnih2/14934491](https://mediacentral.princeton.edu/media/Geosciences+Lecture+SeriesA+Fifty+Years+of+Plate+Tectonics/1_xtgnih2/14934491)



## Jason Morgan Recalls Discovering Earth's Tectonic Plates

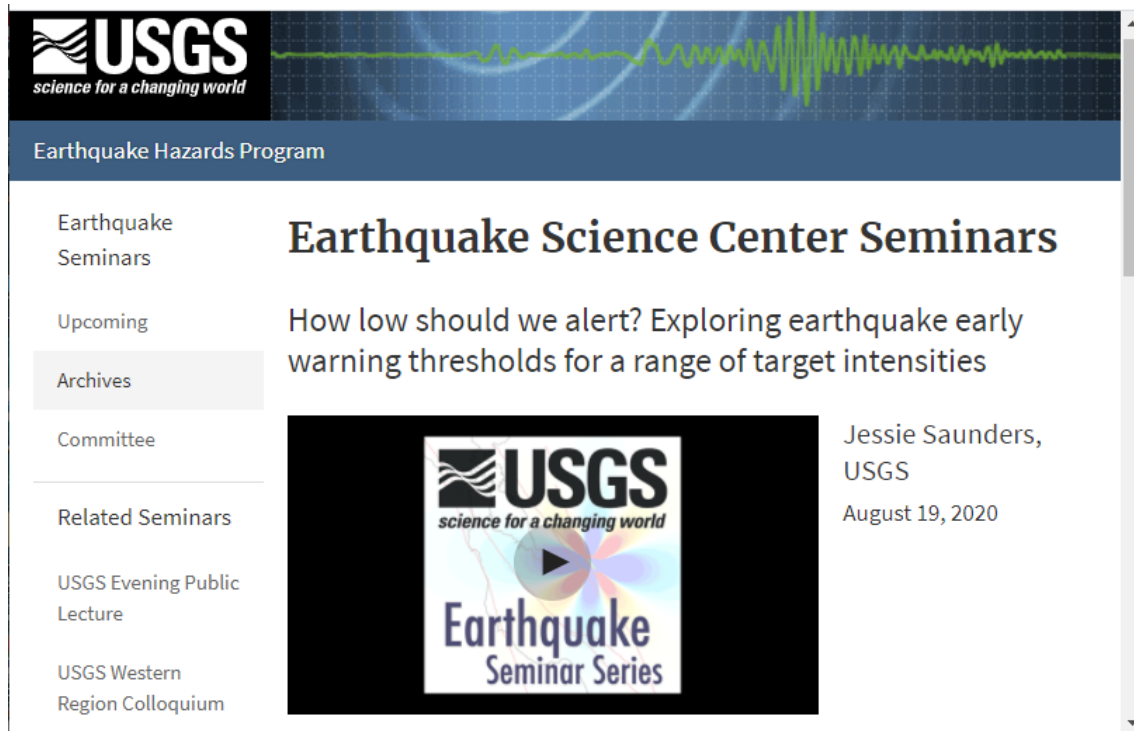
<https://www.quantamagazine.org/jason-morgan-recalls-discovering-earths-tectonic-plates-20170828/>

In 1967, Jason Morgan discovered the theory of plate tectonics — the idea that rigid plates pave the Earth's surface, moving relative to one another with the continents and oceans in tow.

# Earthquakes

## [USGS Earthquake Science Center Seminar Series](https://earthquake.usgs.gov/contactus/menlo/seminars/archives/2020)

<https://earthquake.usgs.gov/contactus/menlo/seminars/archives/2020>



<https://earthquake.usgs.gov/contactus/menlo/seminars/1291>

## Online Videos/Lectures

<https://www.usgs.gov/science-support/osqi/yes/resources-teachers/online-lectures>

**Public Talks:** <https://www.usgs.gov/science-support/communications-and-publishing/public-lecture-series/multimedia>

**PubTalk 10/2019 — Remembering Loma Prieta Earthquake 30 Years Later**

<https://www.usgs.gov/media/videos/pubtalk-102019-remembering-loma-prieta-earthquake-30-years-later>

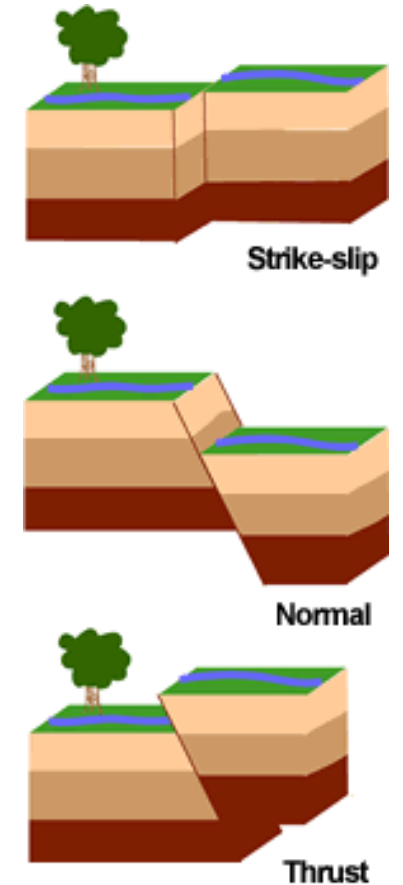
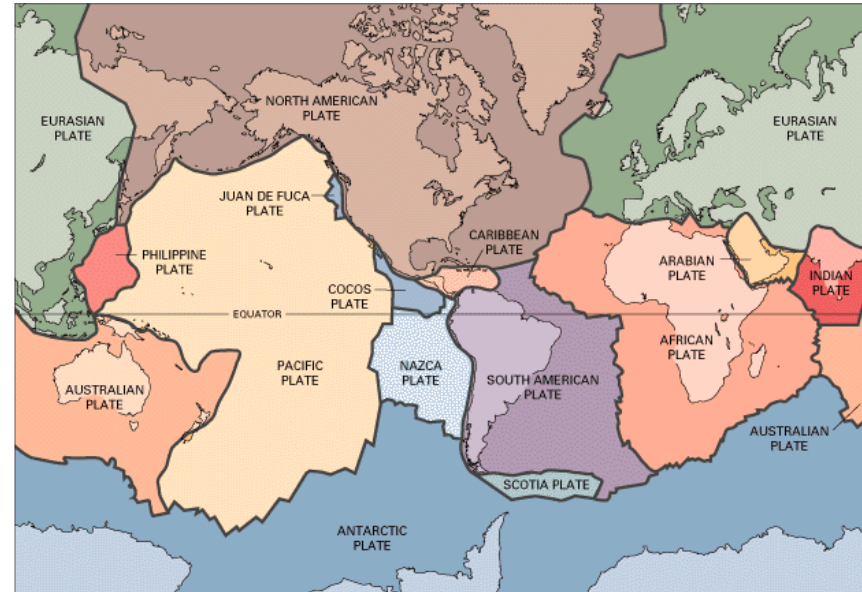
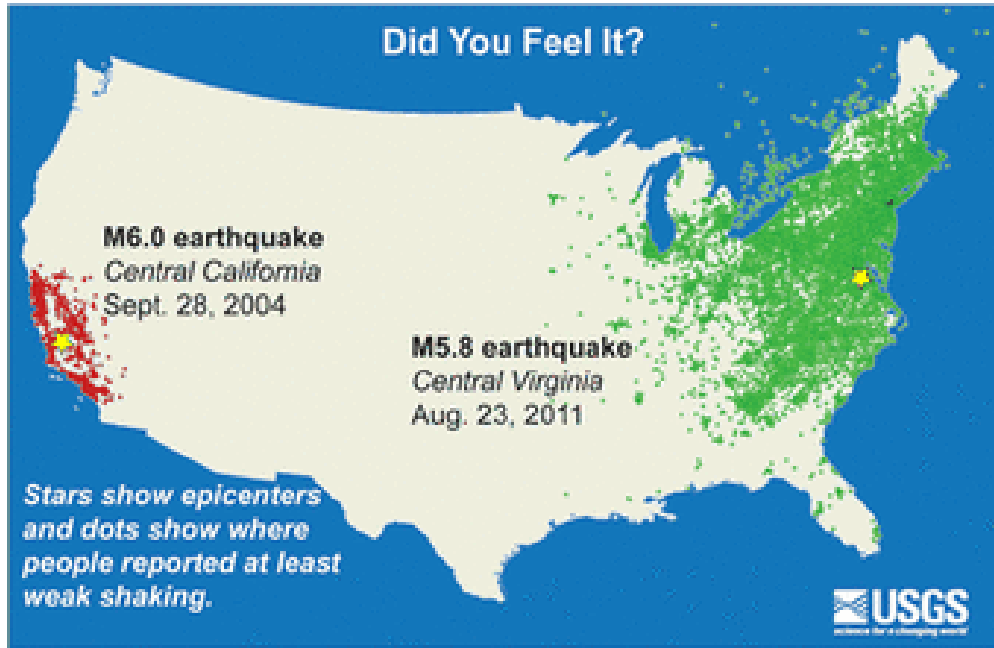




# Earthquakes

## Education

<https://www.usgs.gov/natural-hazards/earthquake-hazards/education>



[https://www.usgs.gov/natural-hazards/earthquake-hazards/science/washington-dc-stone-and-brick-buildings-vulnerable?qt-science\\_center\\_objects=0#qt-science\\_center\\_objects](https://www.usgs.gov/natural-hazards/earthquake-hazards/science/washington-dc-stone-and-brick-buildings-vulnerable?qt-science_center_objects=0#qt-science_center_objects)

This Dynamic Earth

<https://pubs.usgs.gov/gip/dynamic/dynamic.html>

<https://earthquake.usgs.gov/learn/glossary/?term=fault>

# Earthquakes



<https://www.usgs.gov/media/galleries/2019-ridgecrest-earthquake-sequence>

Earthquake monitoring stations: <https://www.usgs.gov/natural-hazards/earthquake-hazards/monitoring>

Earthquake Summary posters : <https://earthquake.usgs.gov/education/posters.php>

Earthquake photos:

Historical : <https://library.usgs.gov/photo/#/>

NEIC : <https://www.usgs.gov/natural-hazards/earthquake-hazards/science/earthquake-photo-collections>

Earthquake statistics: <https://www.usgs.gov/natural-hazards/earthquake-hazards/lists-maps-and-statistics>

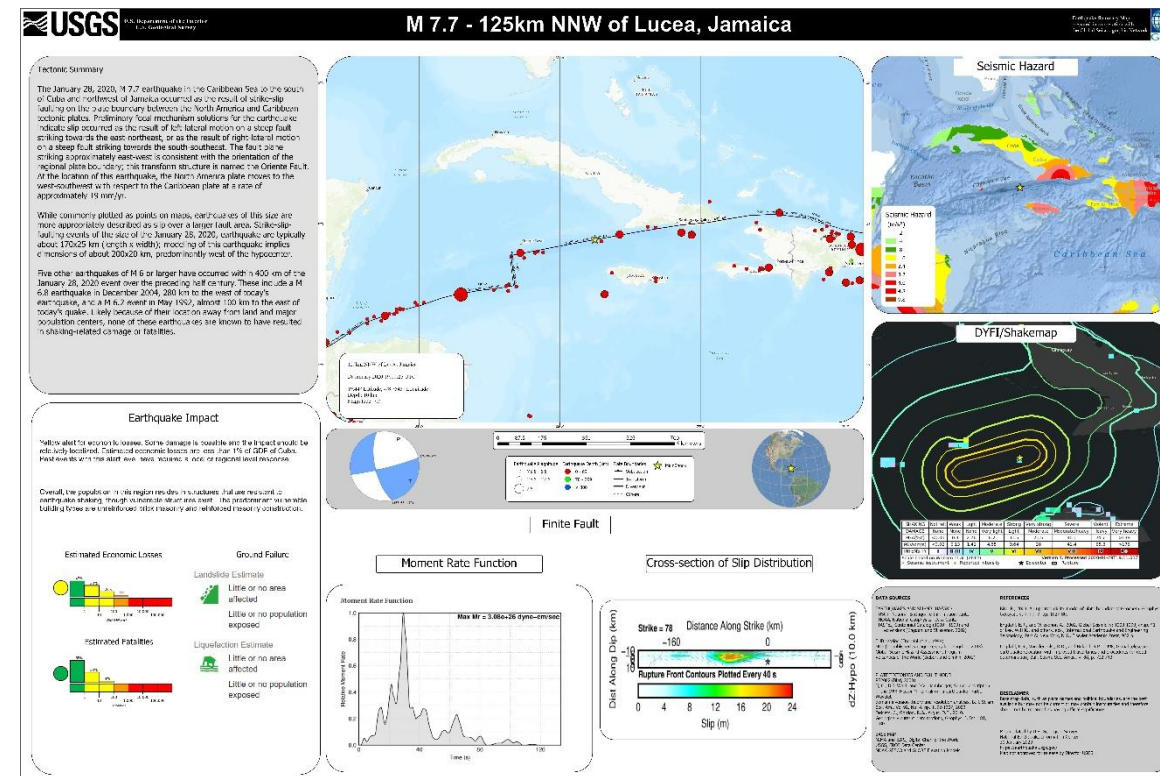
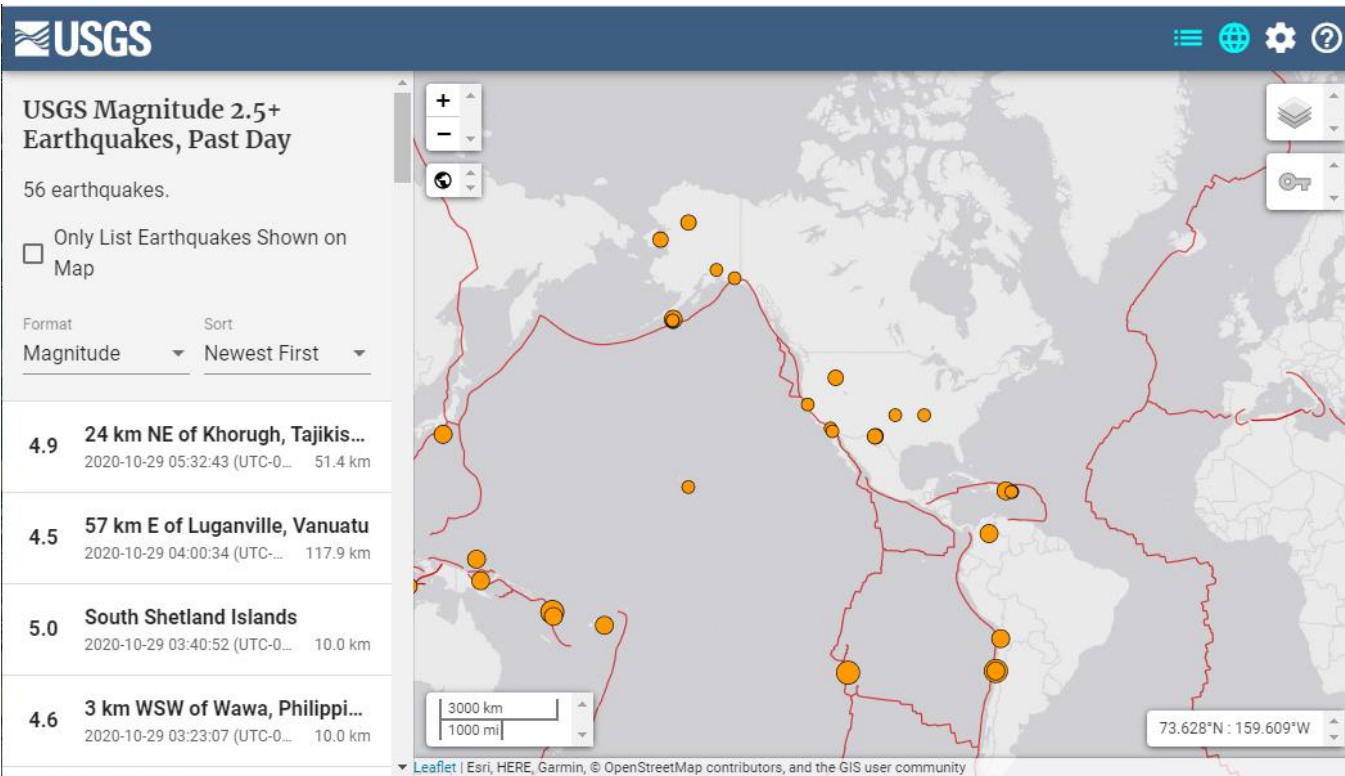
Earthquake education: <https://www.usgs.gov/natural-hazards/earthquake-hazards/education>

Earthquake software : <https://www.usgs.gov/natural-hazards/earthquake-hazards/software>

# Earthquakes

## Real-Time Data/Maps

<https://www.usgs.gov/products/data-and-tools/real-time-data>

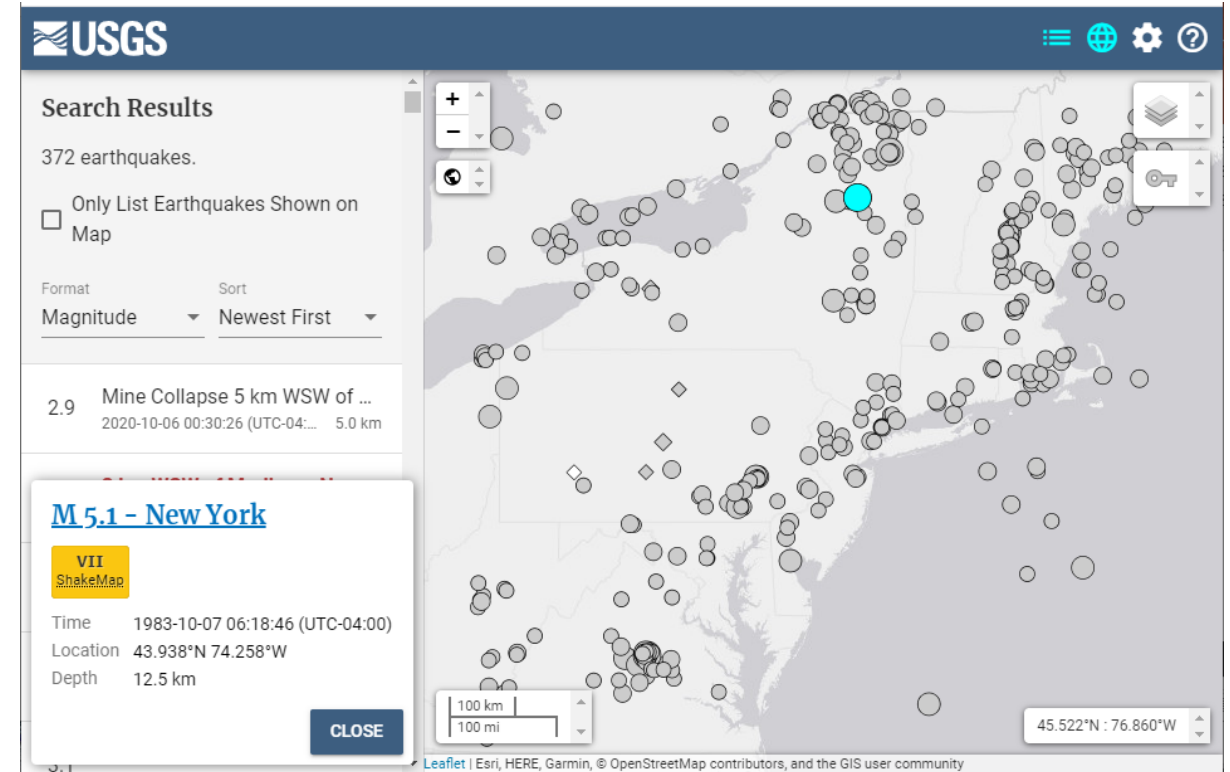
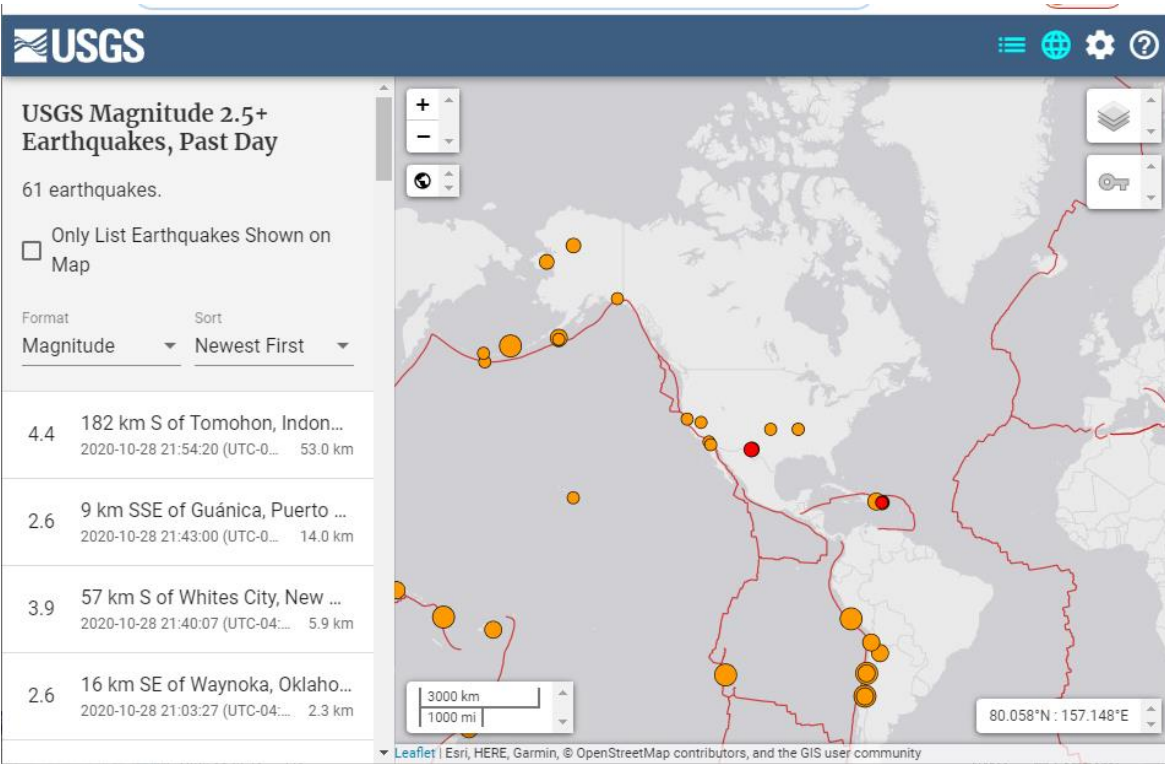


<https://earthquake.usgs.gov/earthquakes/map/?extent=-51.39921,-230.625&extent=78.83607,27.77344>

<https://earthquake.usgs.gov/education/posters.php>

# Earthquakes

<https://earthquake.usgs.gov/earthquakes/map>



<https://earthquake.usgs.gov/earthquakes/map/?extent=-49.15297,-206.71875&extent=80.11856,16.875>

**1970 to yesterday**

# Earthquakes

Searching for citations:

The Geological Society of London

<https://www.lyellcollection.org/>

GeoScienceWorld

<https://pubs.geoscienceworld.org/>

OpenGeoSci:

<https://pubs.geoscienceworld.org/pages/opengeosci>

USGS Publications:

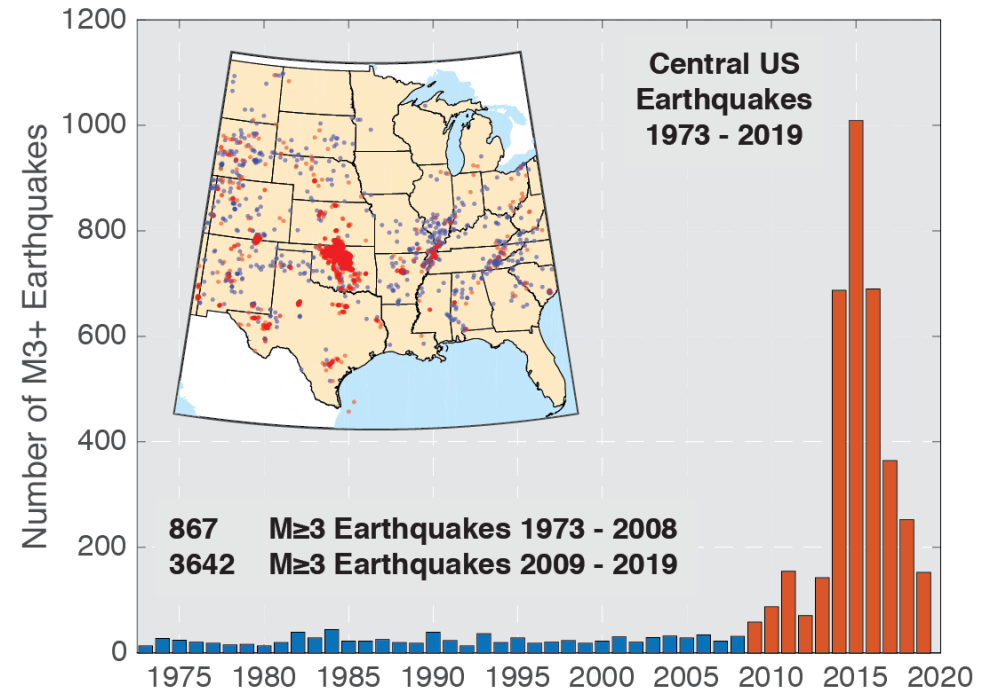
<https://pubs.er.usgs.gov/>

Earthquake Publications:

<https://www.usgs.gov/natural-hazards/earthquake-hazards/research>

## Induced Earthquakes

Current research on induced earthquakes due to human activities. Observations, modeling, and hazards.



## External Grants

The USGS supports external research that will assist in achieving the goals of the National Earthquake Hazards Reduction Program (NERHP).

# Earthquakes

Searching for citations:

The Geological Society of London

<https://www.lyellcollection.org/>

GeoScienceWorld

<https://pubs.geoscienceworld.org/>

American Geophysical Union

<https://www.agu.org/>

Geological Society of America

<https://www.geosociety.org/>

AGI Open Access Journals

<https://www.americangeosciences.org/information/georef/open-access-journals>



Seismological Society of America (SSA)

<https://pubs.geoscienceworld.org/ssa>

The Seismic Record – New - Open Access

<https://www.seismosoc.org/publications/the-seismic-record/>



Bulletin of the Seismological Society of America

<https://www.seismosoc.org/publications/bssa/>

Princeton University catalog search

- eresource through GeoScienceWorld:

<https://catalog.princeton.edu/catalog/9774587>



Seismological Research Letters

<https://www.seismosoc.org/publications/srl/>

Princeton University catalog search

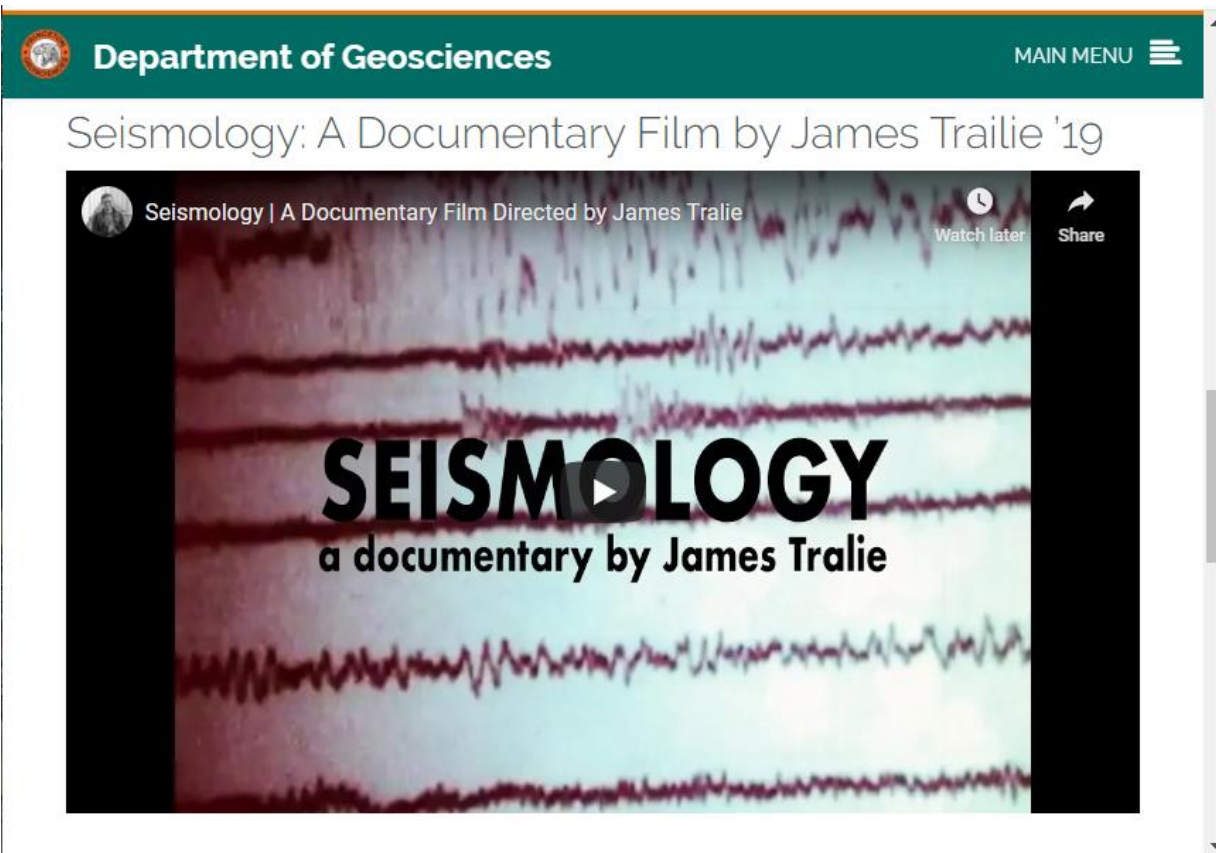
-ereource through GeoScienceWorld

<https://catalog.princeton.edu/catalog/9781263>

# Earthquakes

<https://geosciences.princeton.edu/research/geophysics>

Seismology: A Documentary Film by James Trailie '19



Geology, Geophysics, and Geochemistry Science Center

<https://www.usgs.gov/centers/gggsc>

Geology, Minerals, Energy, and Geophysics Science Center

<https://www.usgs.gov/centers/gmeg>





The screenshot shows a Google Scholar search for "Earthquake" on the Princeton University library website. The search results page displays several articles, with a sidebar on the right showing a list of selected items. The sidebar includes the following entries:

- Earthquake transformer—an attentive deep-learning model for simultaneous earthquake detection and phase picking**  
S. Mostafa Mousavi, William L. Ellsworth, Weiqiang Z  
DOI: [10.1038/s41467-020-17591-w](https://doi.org/10.1038/s41467-020-17591-w)  
+ Add to Library View PDF
- Fiber-Optic Network Observations of Earthquake Wavefields**  
Nathaniel J. Lindsey, Eileen R. Martin, Douglas S. Dr.  
DOI: [10.1002/2017GL075722](https://doi.org/10.1002/2017GL075722)  
+ Add to Library View PDF
- Convolutional neural network for earthquake detection and location**  
Thibaut Perol, Michaël Gharbi, Marine Denolle

At the bottom of the sidebar, there are buttons for "Select all" and "Add to library".



## PEI Faculty Seminar: “Climatic Influences on Tropical Cyclones and Their Severity”

<https://www.youtube.com/watch?v=EUL0gMizPbA>

## Human-caused warming will cause more slow-moving hurricanes, warn climatologists

<https://www.princeton.edu/news/2020/04/22/human-caused-warming-will-cause-more-slow-moving-hurricanes-warn-climatologists>

## Experts: Warming makes Delta, other storms power up faster

<https://apnews.com/article/climate-climate-change-oceans-storms-weather-108ee106d20ab2ab4880011b78e71981>

## Recent increases in tropical cyclone intensification rates

<https://www.nature.com/articles/s41467-019-08471-z>

## Climate scientist Gabriel Vecchi: Climate crisis contributes to intensity of storms

<https://vecchi.princeton.edu/>

<https://vecchi.princeton.edu/publications/search>

<https://vecchi.princeton.edu/news>



# Hurricanes

## 2020 Tropical Storms

- [Tropical Storm ARTHUR](#)
- [Tropical Storm BERTHA](#)
- [Tropical Storm CRISTOBAL](#)
- [Tropical Storm DOLLY](#)
- [Tropical Storm EDOUARD](#)
- [Tropical Storm FAY](#)
- [Tropical Storm GONZALO](#)
- [Hurricane HANNA](#)
- [Hurricane ISAIAS](#)
- [Tropical Depression TEN](#)
- [Tropical Storm JOSEPHINE](#)
- [Tropical Storm KYLE](#)
- [Hurricane LAURA](#)
- [Hurricane MARCO](#)
- [Tropical Storm OMAR](#)
- [Hurricane NANA](#)
- [Hurricane PAULETTE](#)
- [Tropical Storm RENE](#)
- [Hurricane SALLY](#)
- [Hurricane TEDDY](#)
- [Tropical Storm VICKY](#)
- [Tropical Storm BETA](#)
- [Tropical Storm WILFRED](#)
- [Subtropical Storm ALPHA](#)
- [Tropical Storm GAMMA](#)
- [Hurricane DELTA](#)
- [Hurricane EPSILON](#)
- [Hurricane ZETA](#)

<https://www.usgs.gov/hurricanes>  
<https://www.noaa.gov/zeta>

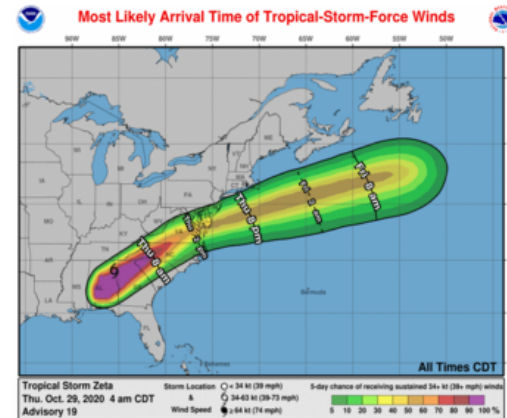
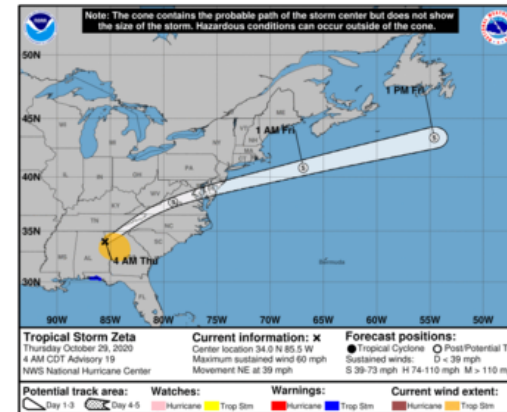


### Key Messages for Tropical Storm Zeta Advisory 19: 4:00 AM CDT Thu Oct 29, 2020



1. Strong, damaging wind gusts, which could cause tree damage and power outages, will continue to spread well inland across portions of northeastern Alabama, northern Georgia, the Carolinas, and southeastern Virginia today due to Zeta's fast forward speed. Wind gusts could be especially severe across the southern Appalachian Mountains.

2. Through today, heavy rainfall is expected near and in advance of Zeta from portions of the central Appalachians, Mid-Atlantic and lower to middle Ohio Valley. This rainfall may lead to flash, urban, small stream, and isolated minor river flooding.



For more information go to [hurricanes.gov](https://hurricanes.gov)

## 2020 Storms

- [Hurricane Delta](#)
- [Hurricane Sally](#)
- [Hurricane Laura](#)
- [Hurricane Marco](#)
- [Hurricane Isaias](#)

## 2019 Storms

- [Hurricane Dorian](#)

## 2018 Storms

- [Florence](#)
- [Michael](#)

## 2017 Storms

- [Nate](#)
- [Maria](#)
- [Jose](#)
- [Irma](#)

## 2016 Storms

- [Matthew](#)

## 2012 Storms

- [Sandy](#)

# Hurricanes

## Real-Time Data/Maps – Archive Example

<https://www.usgs.gov/products/data-and-tools/real-time-data>

The screenshot displays the USGS Flood Event Viewer interface for the 2019 Hurricane Dorian event. The main map shows the Eastern United States and the Gulf of Mexico, with a red shaded area indicating the hurricane's path. A legend on the right side, titled 'MAP LAYERS', lists various data types: Real-Time Data (Stream Gage, Rain Gage, Rapid Deployment Gage, NOAA Tides and Currents Stations), Observed Data (Barometric Pressure Sensor, Storm Tide Sensor, Meteorological Sensor, Wave Height Sensor, High Water Mark), and Interpreted Data (Peak Summary). The interface also includes a search bar, a filter section, and a 'CHANGE FILTERS' button.

**USGS** Flood Event Viewer

EVENT: **2019 Hurricane Dorian**  
28 Aug 2019 thru 20 Sep 2019

BASEMAPS >  
FILTERS >  
CHANGE FILTERS

Current Filters  
EVENT: 2019 Hurricane Dorian  
GET DATA >

POWERED BY WIM

MAP LAYERS

Real-Time Data  
Real-time stream and rain gage layers only available at zoom level 9 and above. Please zoom in to view.

- ▲ Real-time Stream Gage
- ◆ Real-time Rain Gage
- ▲ Rapid Deployment Gage
- ▲ NOAA Tides and Currents Stations

Observed Data

- ◆ Barometric Pressure Sensor
- Storm Tide Sensor
- Meteorological Sensor
- Wave Height Sensor
- ◆ High Water Mark

Interpreted Data

- ◆ Peak Summary

Leaflet | Esri

<https://stn.wim.usgs.gov/fev/>

# Hurricanes

## Emergency Operations International Charter

<https://www.usgs.gov/science-explorer-results?es=Emergency%20operations%20/%20International%20Charter>

## Hazards Data Distribution System (HDDS)

<https://www.usgs.gov/core-science-systems/hdds/hazards-data-distribution-system-hdds>

The Hazards Data Distribution System ([HDDSExplorer](#)) is an event-based interface that provides a single point-of-entry for access to remotely sensed imagery and other geospatial datasets as they become available during a response. The imagery hosted on HDDS

## Emergency Operations Portal

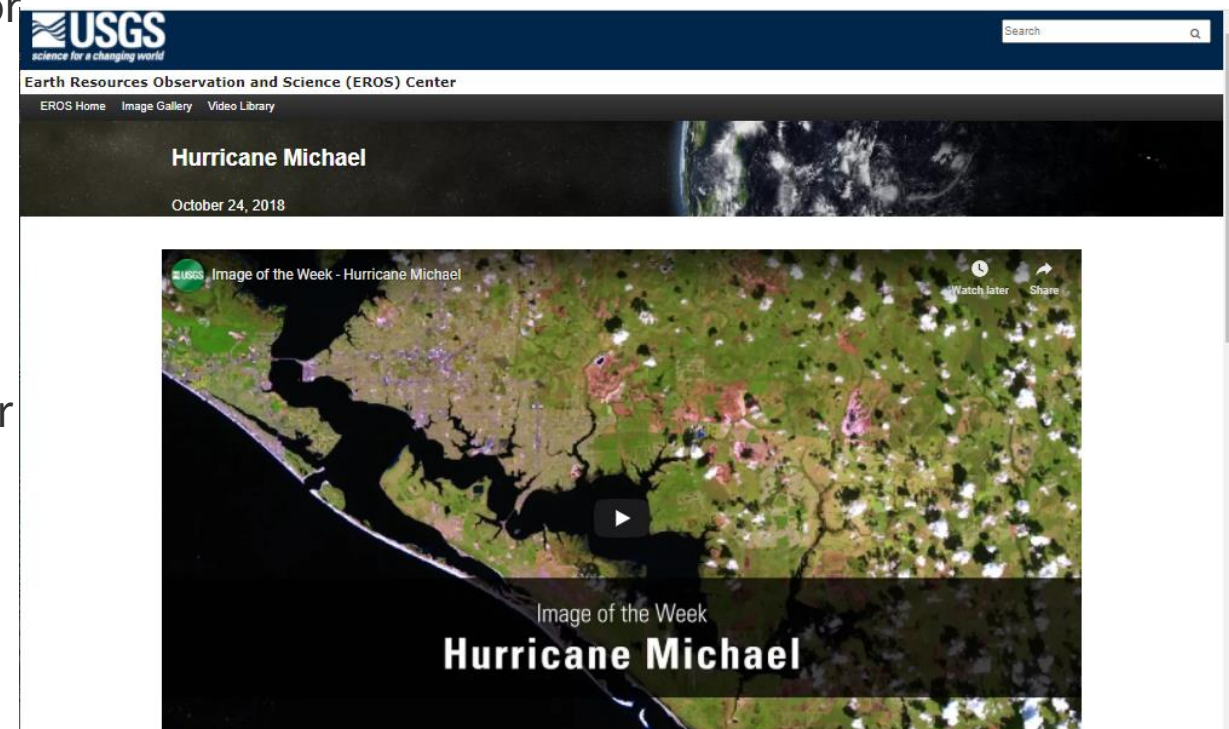
<https://www.usgs.gov/centers/eros/science/emergency-operations-portal>

[USGS Emergency Response](#) strives to ensure that the disaster response community has rapid access to timely, accurate, and relevant geospatial imagery, products, and services before, during, and after a disaster.

[Land Resources](#), [Earth Resources Observation and Science \(EROS\) Center](#)

<https://eros.usgs.gov/image-gallery>

<https://eros.usgs.gov/image-gallery/image-of-the-week/hurricane-michael>





Hurricane - Google Scholar

scholar.google.com/scholar?hl=en&as\_sdt=0%2C31&as\_ylo=2016&q=Hurricane&btnG=

Hurricane

Scholar About 76,000 results (0.15 sec)

Since 2016

[HTML] **Mortality in puerto rico after hurricane maria**  
N Kishore, D Marqués, A Mahmud... - New England journal ..., 2018 - Mass Medical Soc  
Background Quantifying the effect of natural disasters on society is critical for recovery of public health services and infrastructure. The death toll can be difficult to assess in the aftermath of a major disaster. In September 2017, **Hurricane** Maria caused massive ...

Cited by 282 Related articles All 19 versions Add to Library Get PDF

**Assessing the present and future probability of Hurricane Harvey's rainfall**  
K Emanuel - Proceedings of the National Academy of ..., 2017 - National Acad Sciences  
We estimate, for current and future climates, the annual probability of areally averaged **hurricane** rain of **Hurricane** Harvey's magnitude by downscaling large numbers of tropical cyclones from three climate reanalyses and six climate models. For the state of Texas, we ...

Cited by 214 Related articles All 14 versions Add to Library Get PDF

[HTML] **Attribution of extreme rainfall from Hurricane Harvey, August 2017**  
GJ Van Oldenborgh, K Van Der Wiel... - Environmental ..., 2017 - iopscience.iop.org  
Abstract During August 25–30, 2017, **Hurricane** Harvey stalled over Texas and caused

**Mortality in Puerto Rico after Hurricane Maria**  
Nishant Kishore, Domingo Marqués, Ayesha Mahmu...  
DOI: [10.1056/NEJMsa1803972](https://doi.org/10.1056/NEJMsa1803972)  
Add to Library Get PDF

**Assessing the present and future probability of Hurricane Harvey's rainfall**  
Kerry Emanuel  
DOI: [10.1073/pnas.1716222114](https://doi.org/10.1073/pnas.1716222114)  
Add to Library Get PDF

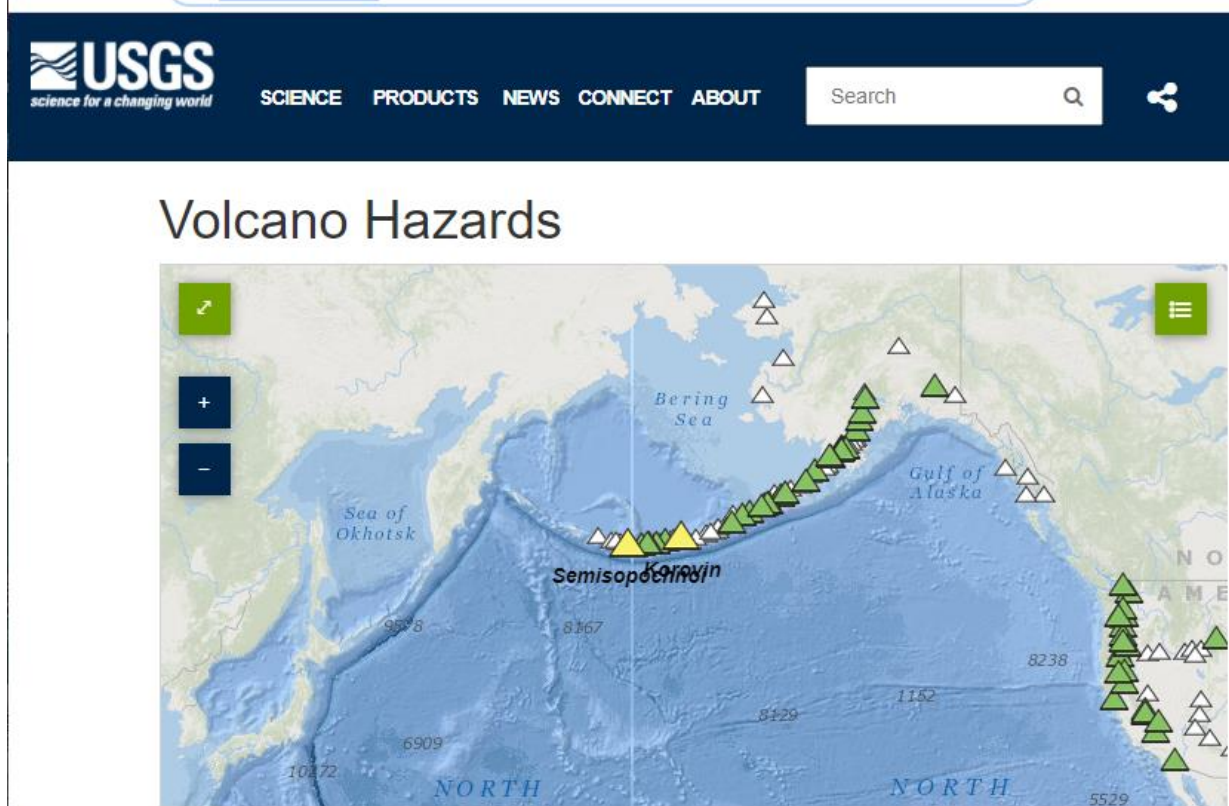
**Hurricane intensification along United States coast suppressed during active hurricane periods**  
James P. Kossin

Select all Add to library

# Volcanoes

## Real-Time Data/Maps

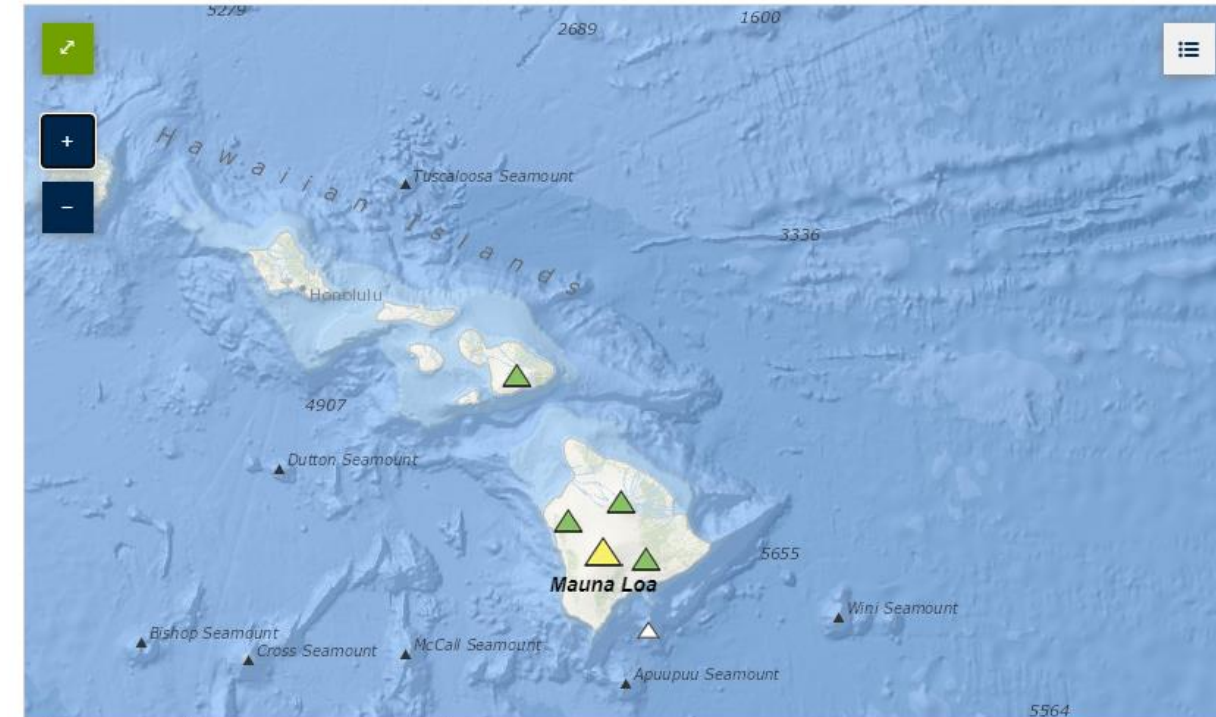
<https://www.usgs.gov/volcano>



<https://avo.alaska.edu/activity/Semisopochnoi.php>

<https://avo.alaska.edu/activity/Korovin.php>

## Volcano Hazards



<https://www.usgs.gov/volcanoes/mauna-loa>

# Volcanoes

Mount St. Helens: May 18, 1980



▶ Video Transcript

## Online Videos/Lectures

<https://www.usgs.gov/science-support/osqi/yes/resources-teachers/online-lectures>

<https://www.usgs.gov/volcano>

Mount St. Helens: A Catalyst for Change



▶ Video Transcript

[Alaska Volcano Observatory](#)  
[California Volcano Observatory](#)  
[Cascades Volcano Observatory](#)  
[Hawaiian Volcano Observatory](#)  
[Yellowstone Volcano Observatory](#)

<https://www.usgs.gov/natural-hazards/volcano-hazards/multimedia>

### Mount St. Helens

<https://www.usgs.gov/volcanoes/mount-st-helens>

<https://www.usgs.gov/observatories/cascades-volcano-observatory/mount-st-helens-videos>

<https://www.usgs.gov/volcanoes/mount-st-helens/multimedia>

# Volcanoes

Eruption of Mount St. Helens. Oblique aerial view of the eruption of May 18, 1980, which sent volcanic ash, steam, water, and debris to a height of 60,000 feet.



June 6, 2018 The vigorous lava fountain at Fissure 8 reached heights of 45 m (150 ft) as shown in this image taken around 9:30 AM.

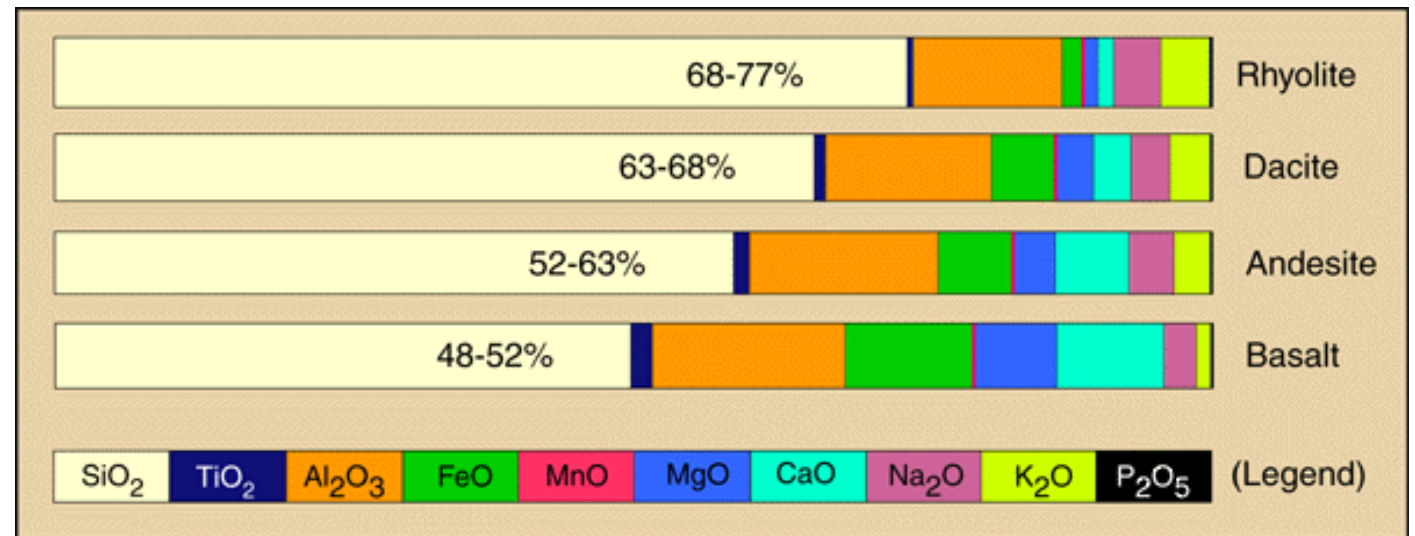


## Education

### USGS Volcano Teaching Materials

<https://www.usgs.gov/natural-hazards/volcano-hazards/education-resources>

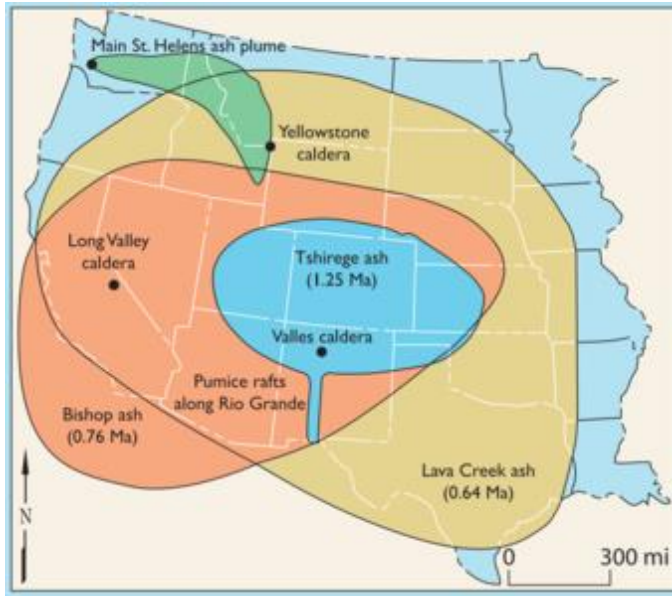
<https://volcanoes.usgs.gov/vsc/glossary/>



Major Chemical Elements Forming Igneous Rocks



# Volcanoes



- [Earthquakes](#)
- [Deformation](#)
- [Hydrology](#)
- [Hydrothermal](#)
- [Volcanic Gas](#)



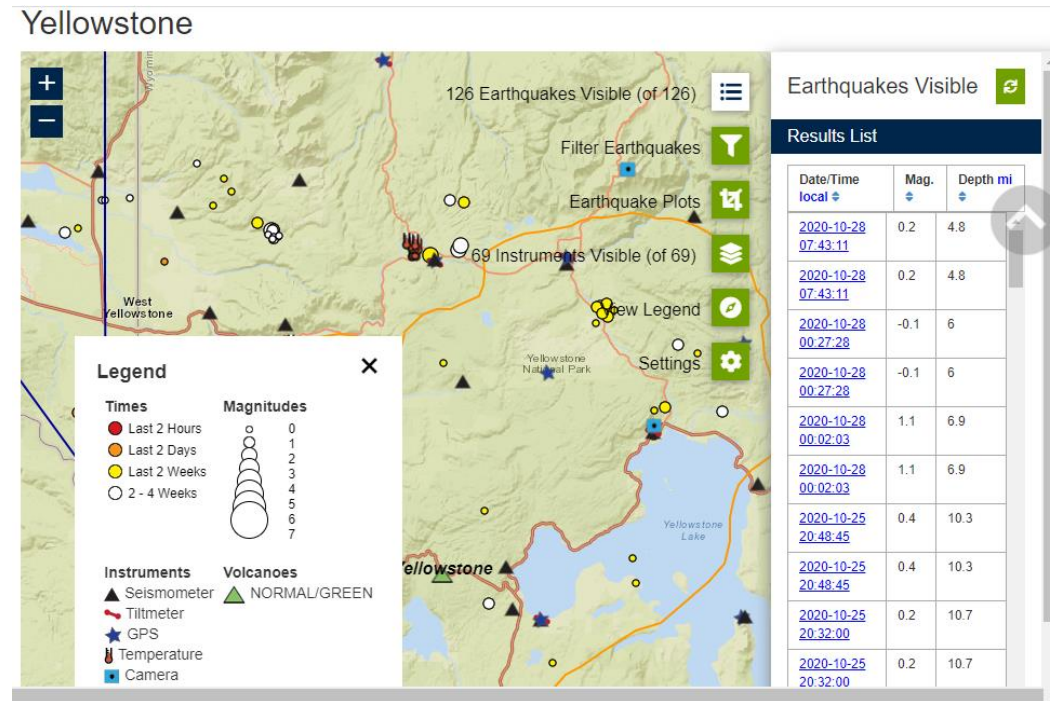
<https://www.usgs.gov/media/images/grand-prismatic-spring-midway-geyser-basin-yellowstone>

## Data/Publications

<https://www.usgs.gov/observatories/yellowstone-volcano-observatory>

## Yellowstone Volcano

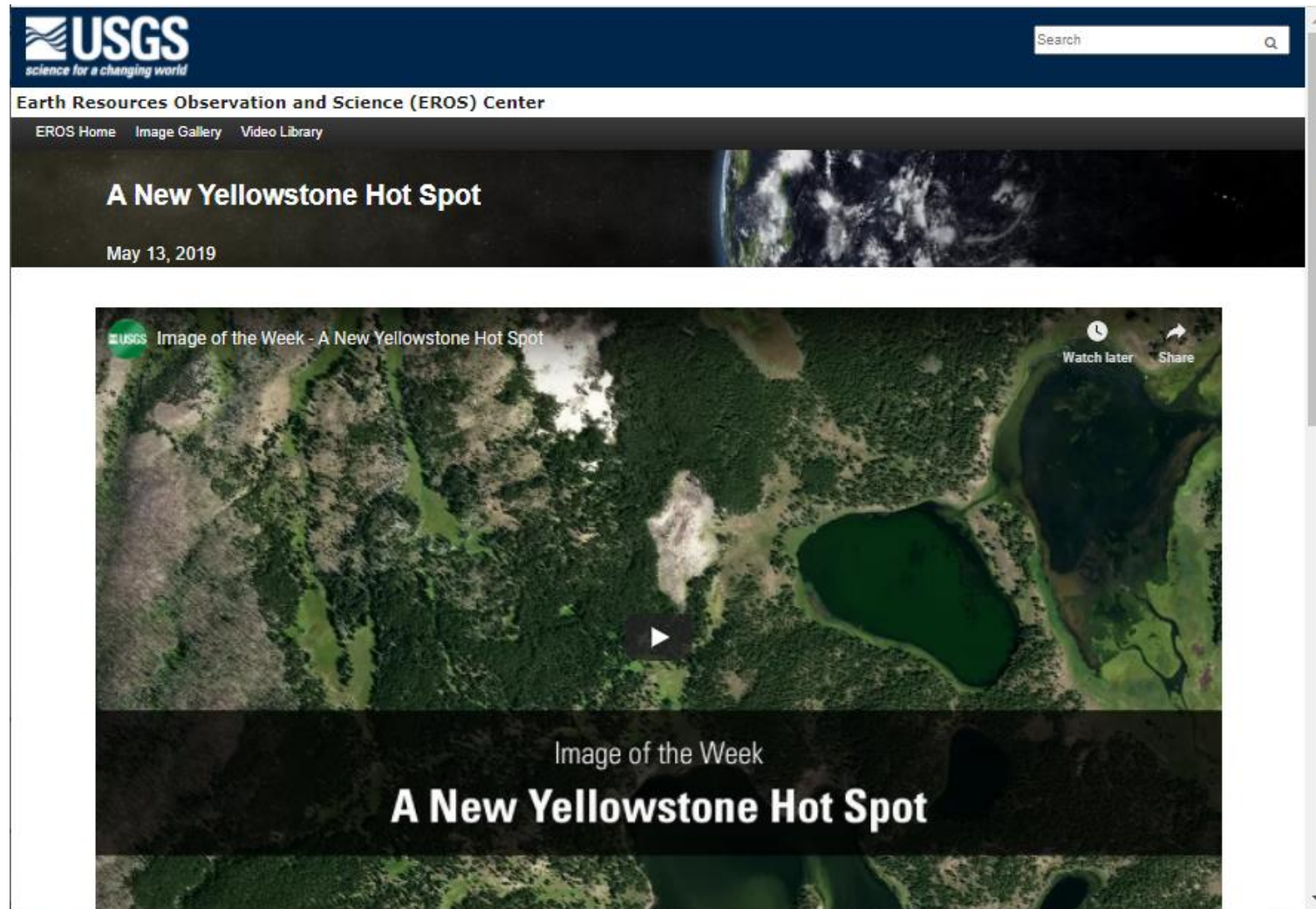
<https://www.usgs.gov/volcanoes/yellowstone/>



<https://www.usgs.gov/volcanoes/yellowstone/monitoring>

# Volcanoes

<https://eros.usgs.gov/image-gallery/image-of-the-week/new-yellowstone-hot-spot>



The screenshot displays the USGS Earth Resources Observation and Science (EROS) Center website. At the top left is the USGS logo with the tagline "science for a changing world". To the right is a search bar. Below the logo is the text "Earth Resources Observation and Science (EROS) Center" and navigation links for "EROS Home", "Image Gallery", and "Video Library". The main header features the title "A New Yellowstone Hot Spot" and the date "May 13, 2019" next to a satellite image of Earth. The central content area shows a video player with a play button, titled "Image of the Week - A New Yellowstone Hot Spot". The video thumbnail depicts a lush green landscape with a prominent dark green pond. In the top right corner of the video player, there are "Watch later" and "Share" icons. Below the video player, a dark banner contains the text "Image of the Week" and "A New Yellowstone Hot Spot".



Volcano - Google Scholar

scholar.google.com/scholar?hl=en&as\_sdt=0%2C31&as\_ylo=2016&q=Volcano&btnG=

Volcano

Scholar About 69,100 results (0.13 sec)

Since 2016

**The 2018 rift eruption and summit collapse of Kīlauea Volcano**  
CA Neal, SR Brantley, L Antolik, JL Babb... - ..., 2019 - science.sciencemag.org  
In 2018, Kīlauea **Volcano** experienced its largest lower East Rift Zone (LERZ) eruption and caldera collapse in at least 200 years. After collapse of the Pu 'u 'Ō 'ō vent on 30 April, magma propagated downrift. Eruptive fissures opened in the LERZ on 3 May, eventually ...  
☆ Cited by 115 Related articles All 7 versions Add to Library Get PDF

**Beyond the traditional volcano concept: overpotential-dependent volcano plots exemplified by the chlorine evolution reaction over transition-metal oxides**  
KS Exner - The Journal of Physical Chemistry C, 2019 - ACS Publications  
The chlorine evolution reaction (CER) over a single-crystalline RuO<sub>2</sub> (110) model electrode is one of the best understood model systems in the field of electrocatalysis, which is taken here as a benchmark system to advance the concept of activity-based **Volcano** plots ...  
☆ Cited by 14 Related articles All 3 versions Add to Library View PDF

[HTML] **First muography of Stromboli volcano**  
V Tioukov, A Alexandrov, C Bozza, L Consiglio... - Scientific reports, 2019 - nature.com

**The 2018 rift eruption and summit collapse of Kīlauea Volcano**  
C. A. Neal, S. R. Brantley, L. Antolik, J. L. Babb, M. B. ...  
DOI: [10.1126/science.aav7046](https://doi.org/10.1126/science.aav7046)  
Add to Library Get PDF

**Beyond the Traditional Volcano Concept: Overpotential-Dependent Volcano Plots Exemplified by the Chlorine Evolution Reaction over Transition-Metal Oxides**  
Kai S. Exner  
DOI: [10.1021/acs.jpcc.9b05364](https://doi.org/10.1021/acs.jpcc.9b05364)  
Add to Library View PDF

**First muography of Stromboli volcano**  
Valeri Tioukov, Andrey Alexandrov, Cristiano Bozza, ...

Select all Add to library

# Wildfires



## GeoMAC Transition Plans

The wildfire community has assumed responsibility for providing wildfire information. The following outlines how each piece of information from GeoMAC has been transitioned.

The [www.geomac.gov](http://www.geomac.gov) mapping application has been replaced by the following mapping application: <https://maps.nwcg.gov/sa/#/%3F39.8212/-96.2709/4>.

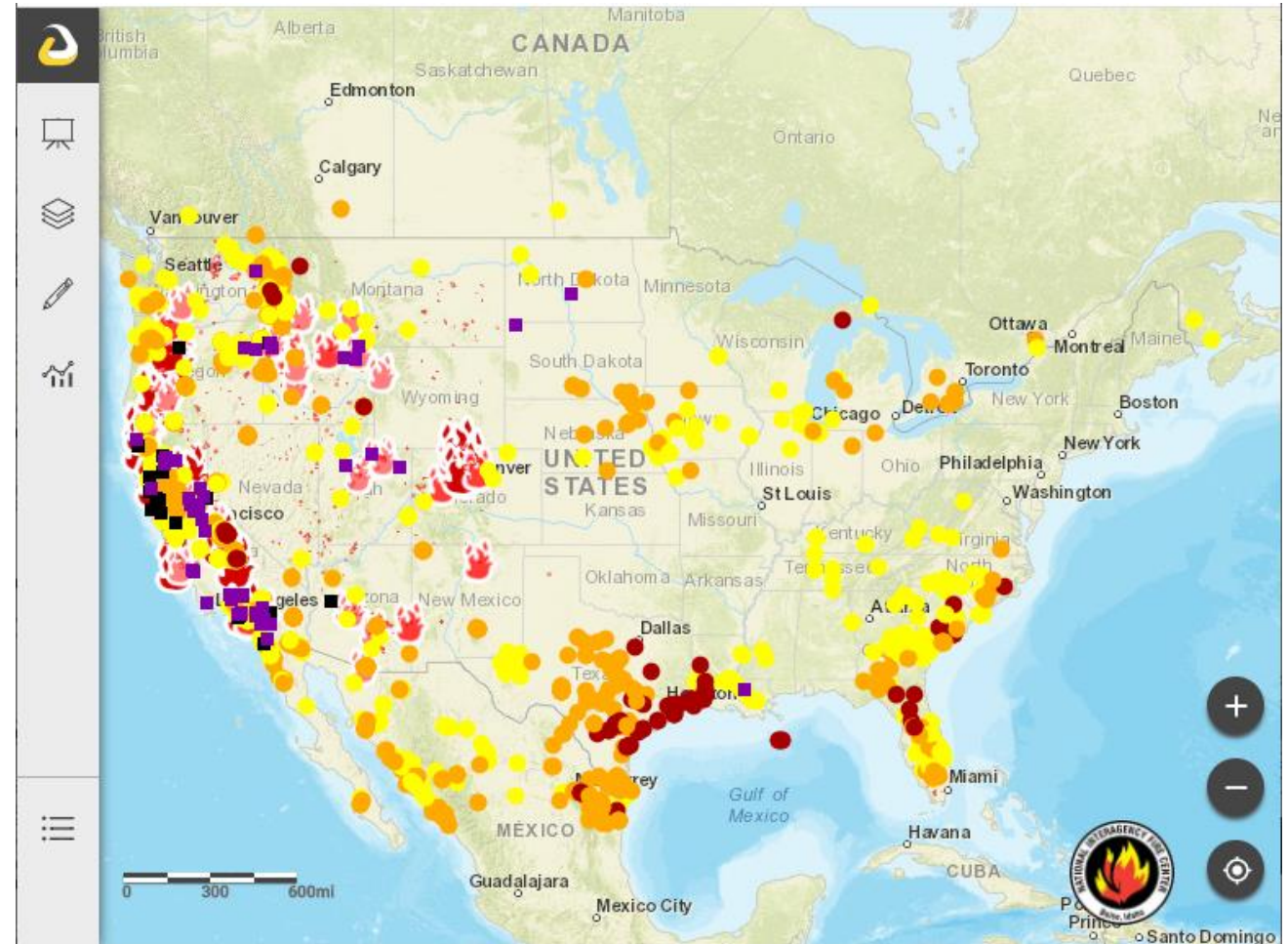
Data available at <https://rmgsc.cr.usgs.gov/outgoing/GeoMAC/> is available at the following location: [data-nifc.opendata.arcgis.com](https://data-nifc.opendata.arcgis.com).

The REST services available through <https://wildfire.cr.usgs.gov/ArcGIS/rest/services> are available at the following location: [data-nifc.opendata.arcgis.com](https://data-nifc.opendata.arcgis.com).

Refer to the following video for more information <https://youtu.be/Ch2HQo8mhGo>

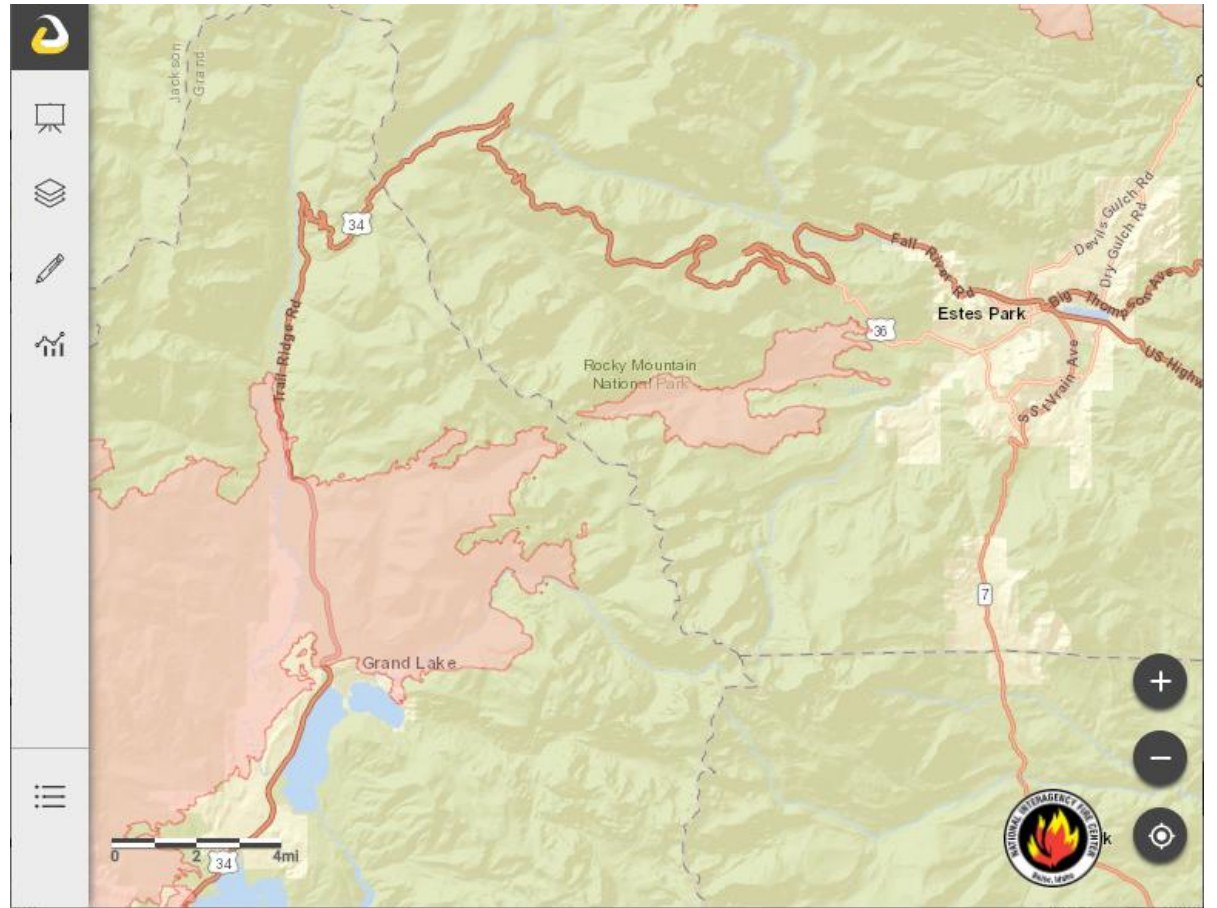
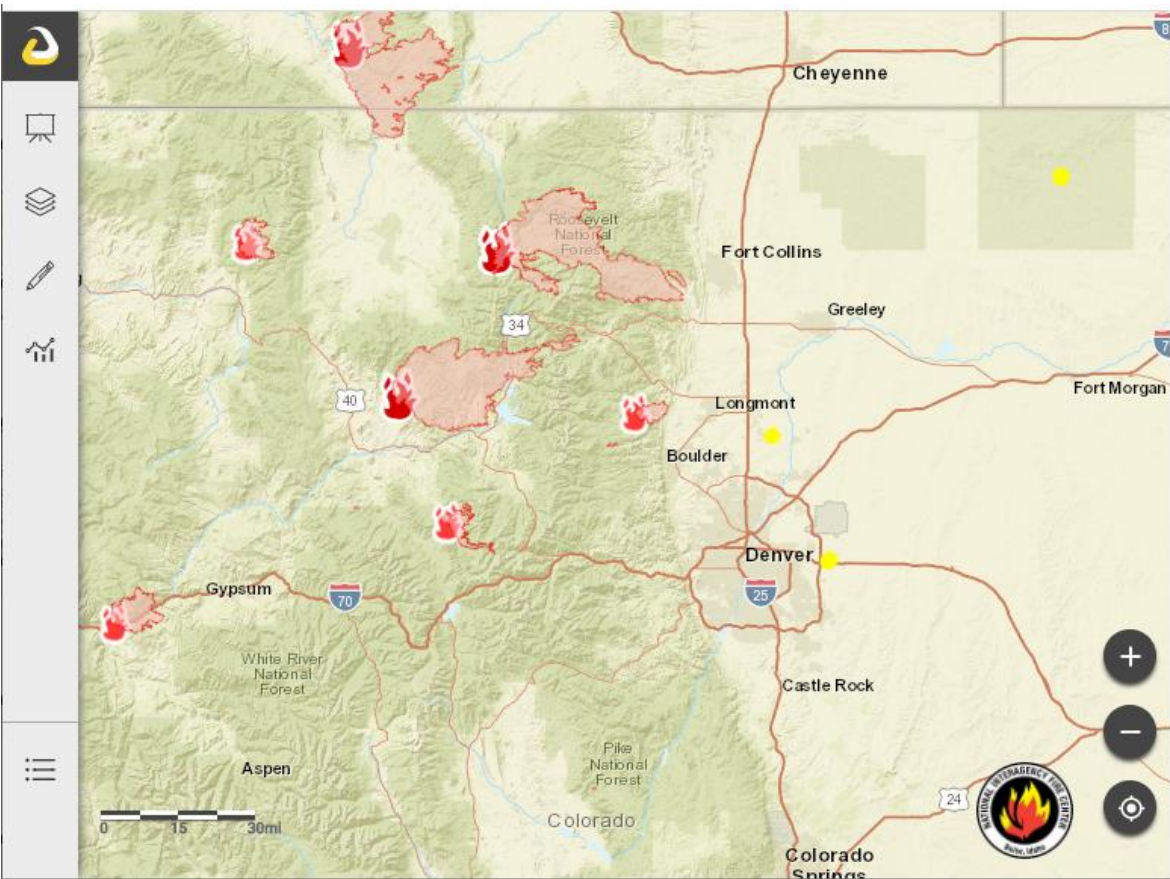
<https://www.geomac.gov/>

## Real-Time Data/Maps



<https://maps.nwcg.gov/sa/#/%3F39.8212/-96.2709/4>

# Wildfires



<https://maps.nwcg.gov/sa/#/%3F/39.8212/-96.2709/4>

# Wildfires

<https://inciweb.nwcg.gov/>

<https://inciweb.nwcg.gov/incident/6964/>

The screenshot shows the InciWeb interface with the search bar set to "East Fork Fire". The map displays a large red-shaded area representing the fire's extent in a mountainous region. A search bar at the top right contains "East Fork Fire" with a close button. The map includes various geographical features like rivers (Weber River, Duchesne) and elevation markers (11343 ft, 13219 ft, 13506 ft, 9856 ft, 11055 ft, 10588 ft). A "Show Legend" button is visible at the bottom left. The bottom navigation bar includes links for "Incident Table View", "Links", "Terminology", "About", "Help", "Disclaimer", "Feeds", and "Login".

This screenshot shows the InciWeb interface with the search bar set to "Search incidents and states". The map displays several red-shaded fire areas. A detailed popup for the "East Troublesome Fire" is open, providing the following information:

- Incident Type:** Wildfire
- Updated:** 9 hrs. ago
- Size:** 193,774 Acres
- Contained:** 30%

The popup also has a close button. Below the map, the title "East Troublesome Fire" is displayed, followed by social media sharing icons for Twitter, Instagram, Facebook, and a general share icon. At the bottom, there are two buttons: "Unit Information" and "Incident Contact".

# Wildfires

USGS Fire Science

<https://www.usgs.gov/media/videos/pubtalk-062019-usgs-fire-science>



PubTalk 06/2019 — USGS Fire Science



**USGS Fire Science is fundamental to understanding the causes, consequences, and benefits of wildfire and helps prevent and manage larger, catastrophic events**

<https://www.usgs.gov/special-topic/fire>

## Online Videos/Lectures

<https://www.usgs.gov/science-support/osqi/yes/resources-teachers/online-lectures>

**Public Lectures:** <https://www.usgs.gov/science-support/communications-and-publishing/public-lecture-series/multimedia>

Post-fire debris flow early warning

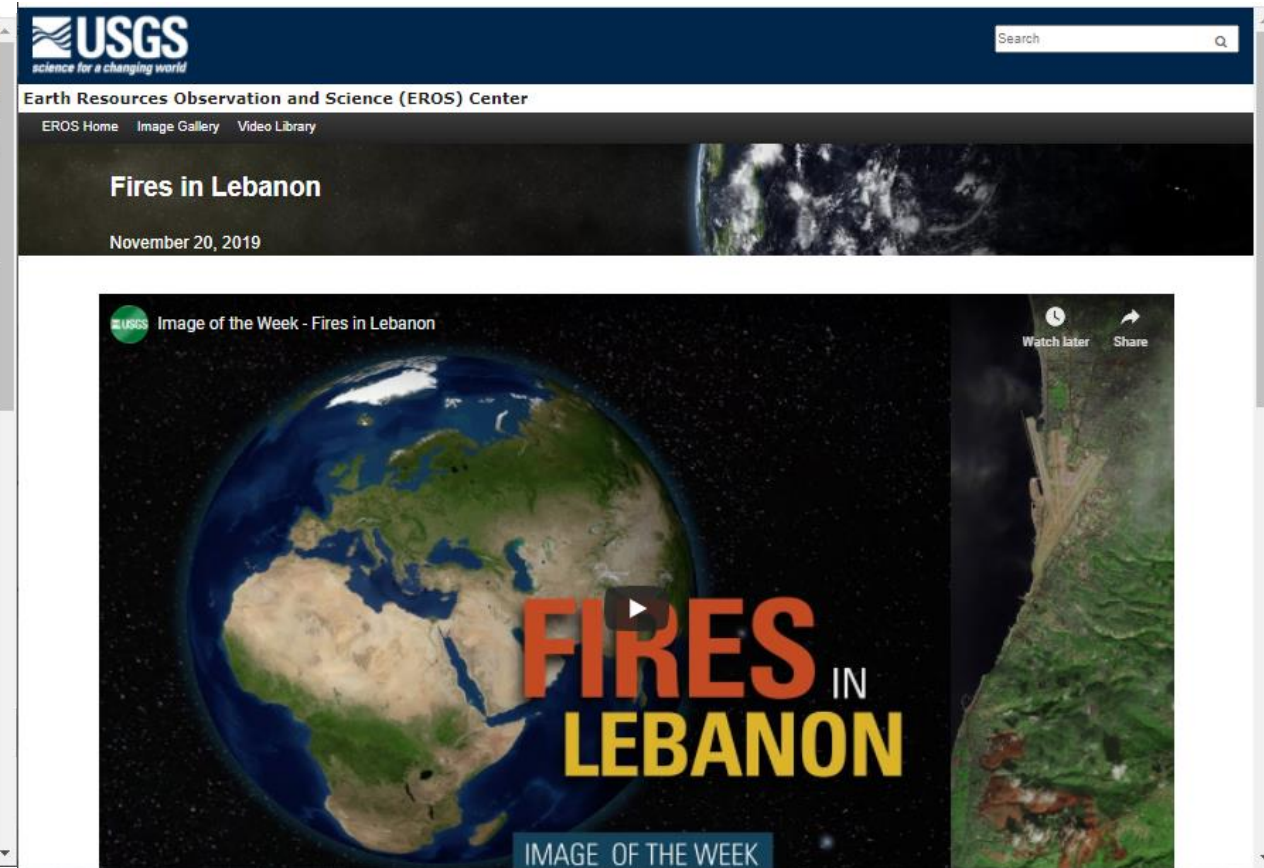
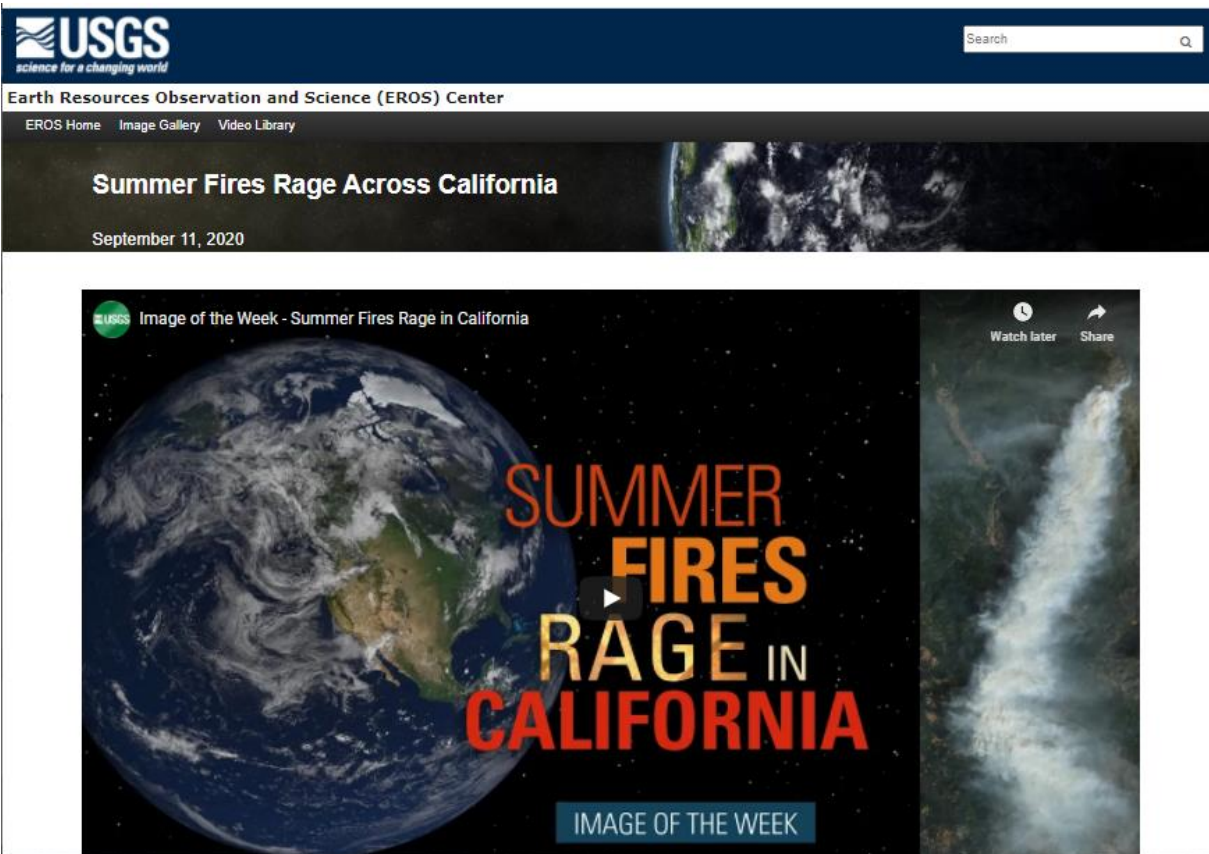
<https://www.usgs.gov/media/videos/pubtalk-102018-post-fire-debris-flow-early-warning>



# Wildfires

<https://eros.usgs.gov/image-gallery/image-of-the-week/summer-fires-rage-across-california>

<https://eros.usgs.gov/image-gallery/image-of-the-week/fires-lebanon>





# Wildfires

**Emergency Assessment of Post-Fire Debris-Flow Hazards**  
**Wildfire can significantly alter the hydrologic response of a watershed to the extent that even modest rainstorms can produce dangerous flash floods and debris flows.**

[https://landslides.usgs.gov/hazards/postfire\\_debrisflow/](https://landslides.usgs.gov/hazards/postfire_debrisflow/)

**Preparedness**  
[What To Do and Look For During and Immediately](#)

[After Heavy Rains](#)  
[Landslide Preparedness & Safety Information](#)

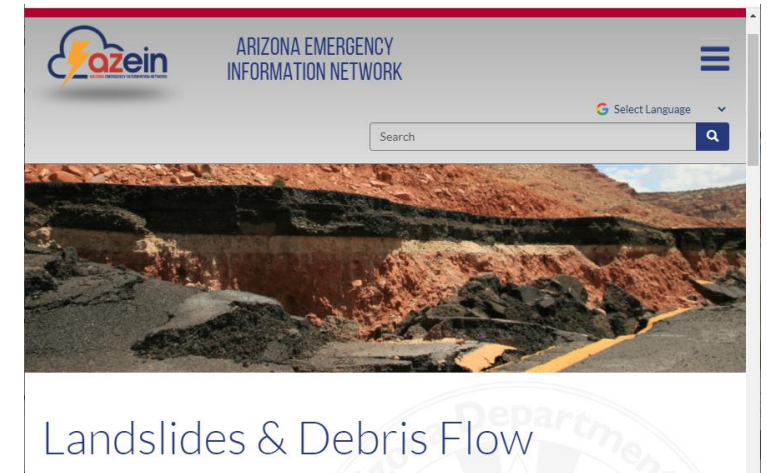
[National Weather Service Post Wildfire Flash Flood & Debris Flow Guide](#)



**WHERE IT BURNS, IT FLOODS:**  
**PREDICTING POST-FIRE MUDSLIDES**  
**IN THE WEST**



<https://www.cnn.com/2020/07/22/us/tucson-wildfire--debris-scen-trnd/index.html> flood



<https://ein.az.gov/hazards/landslides-debris-flow>



Wildfire - Google Scholar

scholar.google.com/scholar?hl=en&as\_sdt=0%2C31&as\_ylo=2016&q=Wildfire&btnG=

Wildfire

Scholar About 41,900 results (0.08 sec)

Since 2016

**[HTML] Rethinking resilience to wildfire**  
DB McWethy, T Schoennagel, PE Higuera... - Nature ..., 2019 - nature.com  
Record-breaking fire seasons are becoming increasingly common worldwide, and large wildfires are having extraordinary impacts on people and property, despite years of investments to support social-ecological resilience to wildfires. This has prompted new calls ...  
☆ Cited by 29 Related articles All 7 versions Add to Library View PDF

**Rapid growth of the US wildland-urban interface raises wildfire risk**  
VC Radeloff, DP Helmers, HA Kramer... - Proceedings of the ..., 2018 - National Acad Sciences  
The wildland-urban interface (WUI) is the area where houses and wildland vegetation meet or intermingle, and where **wildfire** problems are most pronounced. Here we report that the WUI in the United States grew rapidly from 1990 to 2010 in terms of both number of new ...  
☆ Cited by 188 Related articles All 18 versions Add to Library Get PDF

**Scientists' warning on wildfire—a Canadian perspective**  
SCP Coogan, FN Robinne, P Jain... - Canadian Journal of ..., 2019 - NRC Research Press  
Recently, the World Scientists' Warning to Humanity: a Second Notice was issued in

**Rethinking resilience to wildfire**  
David B. McWethy, Tania Schoennagel, Philip E. Hig...  
DOI: [10.1038/s41893-019-0353-8](https://doi.org/10.1038/s41893-019-0353-8)  
Add to Library View PDF

**Rapid growth of the US wildland-urban interface raises wildfire risk**  
Volker C. Radeloff, David P. Helmers, H. Anu Kramer,  
DOI: [10.1073/pnas.1718850115](https://doi.org/10.1073/pnas.1718850115)  
Add to Library Get PDF

**Scientists' warning on wildfire — a Canadian perspective**  
Sean C.P. Coogan, François-Nicolas Robinne, Piyus...  
DOI: [10.1139/cjfr-2019-0094](https://doi.org/10.1139/cjfr-2019-0094)

Select all Add to library

**Thank You!**



[Geological Survey art room](#)



<https://artmuseum.princeton.edu/collections/objects/32428>

<https://artmuseum.princeton.edu/exhibitions>

## Stay Connected With Librarians

**Geoscience Information Society (GSIS)**

<http://www.geoinfo.org/>

**GEONET listserv:** <http://www.geoinfo.org/e-mail-list/>

**Disaster Librarians & Information Professionals :**

<https://disasterinfo.nlm.nih.gov/disaster-info-specialist>

**DISASTR-OUTREACH-LIB Listserv :**

<https://disasterinfo.nlm.nih.gov/stay-connected>

**Next webinar: November 24, 2020 at 2 pm:**

**Using Government Art Sources for Chemistry,**

**Geosciences, and Environmental Studies Library Research**

<https://www.fdlp.gov/news-and-events/4756-webinar-using-government-art-sources-for-chemistry-geosciences-and-environmental-studies-library-research>