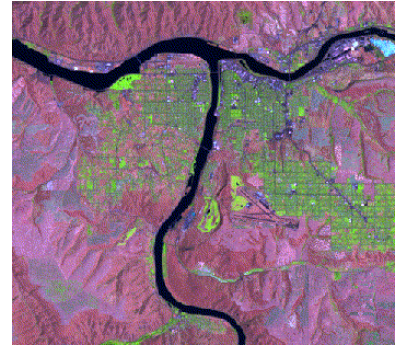
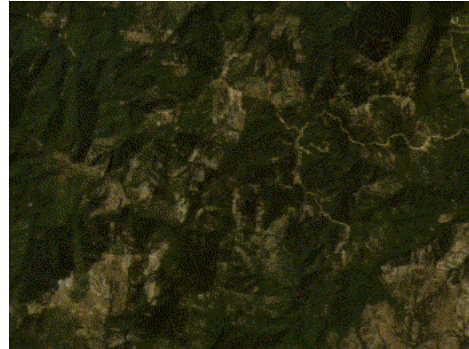
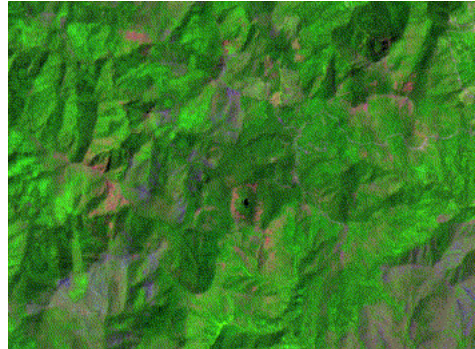
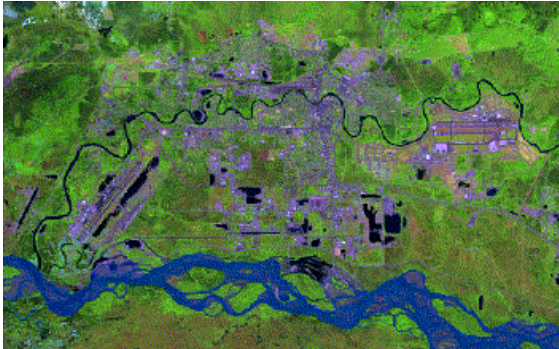


Making your own satellite animations of change



Landsat 4-5 Thematic Mapper (TM) and Landsat 7 Enhanced Thematic Mapper Plus (ETM+)		
Band	Wavelength	Useful for mapping
Band 1 - blue	0.45-0.52	Bathymetric mapping, distinguishing soil from vegetation and deciduous from coniferous vegetation
Band 2 - green	0.52-0.60	Emphasizes peak vegetation, which is useful for assessing plant vigor
Band 3 - red	0.63-0.69	Discriminates vegetation slopes
Band 4 - Near Infrared	0.77-0.90	Emphasizes biomass content and shorelines
Band 5 - Short-wave Infrared	1.55-1.75	Discriminates moisture content of soil and vegetation; penetrates thin clouds
Band 6 - Thermal Infrared	10.40-12.50	Thermal mapping and estimated soil moisture
Band 7 - Short-wave Infrared	2.09-2.35	Hydrothermally altered rocks associated with mineral deposits
Band 8 - Panchromatic (Landsat 7 only)	0.52-0.90	15 meter resolution, sharper image definition

Landsat Multispectral Scanner (MSS)			
Landsat MSS 1, 2, 3 Spectral Bands	Landsat MSS 4, 5 Spectral Bands	Wavelength	Useful for mapping
Band 4 - green	Band 1 - green	0.5-0.6	Sediment-laden water, delineates areas of shallow water
Band 5 - red	Band 2 - red	0.6-0.7	Cultural features
Band 6 - Near Infrared	Band 3 - Near Infrared	0.7-0.8	Vegetation boundary between land and water, and landforms
Band 7 - Near Infrared	Band 4 - Near Infrared	0.8-1.1	Penetrates atmospheric haze best, emphasizes vegetation, boundary between land and water, and landforms

https://www.usgs.gov/faqs/what-are-best-landsat-spectral-bands-use-my-research?qt-news_science_products=0#qt-news_science_products

LT-GEE Time Series Animator

Search

Earth Engine Apps Experimental

Search places

Define Year Range

Start Year: 1984

End Year: 2019

Define Date Range (month-day)

Start Date: 06-10

End Date: 09-20

Select RGB Combo

SWIR1/NIR/RED

Define Frames Per Second

5

Instructions

This EE App will make an animated GIF from a Landsat time series that has been smoothed by LandTrendr spectral-temporal segmentation.

1. Set the range of years to animate over
2. Set the date range to composite over ...note that date range can cross the new year
3. Select an RGB/band display combination
4. Set the desired animation frame rate
5. Click 5 points to close a rectangle (go slow) ...be patient after 5th click for feature to register
6. Processing begins, wait a few minutes

- Use the 'Clear' button to start over

- Change RGB combo and 'Rerun' on same region

- If a video does not render, try making a ...smaller region and/or zoom out a level

[About LandTrendr](#)

Zoom level: 4

Layers

Map


Satellite

Google

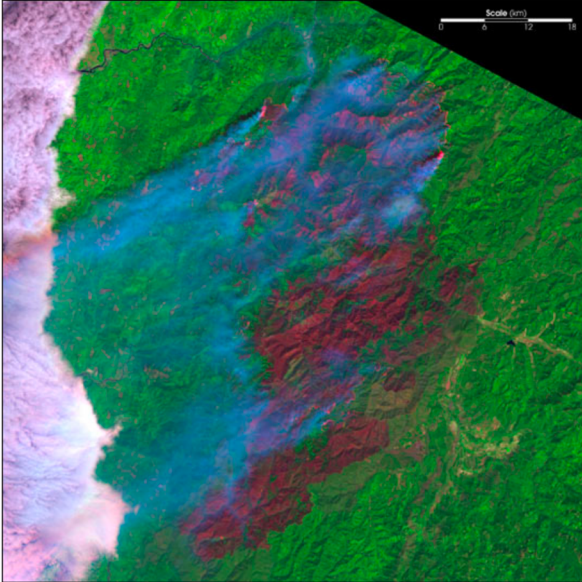
Map data ©2019 INEGI Imagery ©2019 NASA, TerraMetrics 500 km Terms of Use

Example: The Biscuit Wildfire (2002) *southwest Oregon, United States*

← → ↺ 🏠 <https://earthobservatory.nasa.gov/images/9932/fires-scorch-oregon> 80% 🔍 Search

 **Fires Scorch Oregon**

This page contains archived content and is no longer being updated. At the time of publication, it represented the best available science.




August 14 12:00:00, 2002 JPEG

On Wednesday, August 7, 2002, two large Oregon fires merged into a single massive fire of more than 333,000 acres. In southwest Oregon, the Sour Biscuit fire on the Oregon-California state line, and the larger Florence Fire to its north closed the gap between them and created an enormous blaze that retained the name Biscuit Fire. The fire has burned over the Oregon state line into California. This image of the fires and thick smoke was captured by the landsat 7 Enhanced Thematic Mapper Plus on August 14, 2002.


In this false-color image, vegetation is green, burned areas are deep magenta, actively burning fire is bright pink, and smoke is blue.

Image provided by the [USGS EROS Data Center](#) Satellite Systems Branch.



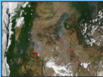
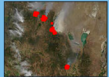


Instrument:
Landsat 7 — ETM+

Fires

 **Fires Scorch Oregon**

Several large wildfires burned out of control in Oregon through most of July and into August 2002, while there was also fire activity in Washington and California.


[View more in this event](#)

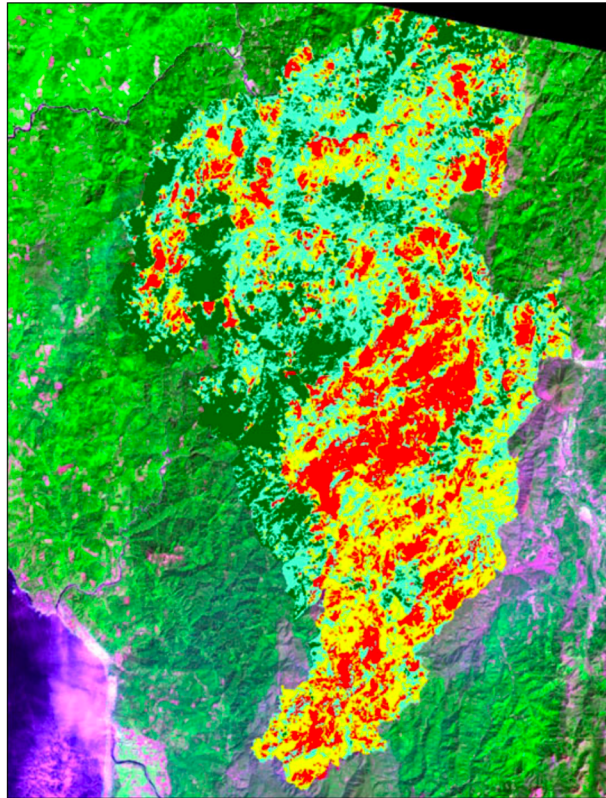


<https://earthobservatory.nasa.gov/images/9932/fires-scorch-oregon>

- <https://www.opb.org/news/video/biscuit-fire-15-year-anniversary/>

Burn Severity for Oregon's Biscuit Fire

This page contains archived content and is no longer being updated. At the time of publication, it represented the best available science. 



Preliminary Burn Severity
■ unburned ■ low ■ moderate ■ high

Before a wildfire is fully contained, natural resource specialists are already thinking about rehabilitation of the burned area. That important work is the domain of a team of experts called a Burned Area Emergency Rehabilitation (BAER) team. A BAER team is composed

Share your story on the blog

- Where did you focus?
- What patterns and colors do you see?
- Why do you see these patterns and colors?