

Landsat Resources

A selected list of Hawaii-specific resources and general Landsat links for data, images, tutorials and activities. NASA data lesson plans and data investigation links.

Satellite images of Hawaii satellite

- Hawaiian Islands – Landsat images prepared for this workshop
<https://landsat.gsfc.nasa.gov/landsat-images-of-hawaii-and-selected-events/>
- Hawaiian Islands – MODIS
 - Hawaii Islands
<https://earthobservatory.nasa.gov/images/3510/hawaiian-islands>
 - Mauna Kea and Mauna Loa
<https://earthobservatory.nasa.gov/images/9222/mauna-kea-and-mauna-loa-hawaii>
- Earth Observatory stories and images
 - World of Change - <https://earthobservatory.nasa.gov/world-of-change>
 - Kilauea Glows -
<https://earthobservatory.nasa.gov/images/150836/kilauea-glows>
 - Probing Kilauea's Plume -
<https://earthobservatory.nasa.gov/images/92140/probing-kilaueas-plume>
 - Snow on Hawaii's tallest peaks -
<https://earthobservatory.nasa.gov/images/152170/a-dusting-of-snow-on-hawaiiis-tallest-peaks>
 - Maui 2023 fires -
<https://earthobservatory.nasa.gov/images/151688/devastation-in-maui>

Hawaii Historical Maps:

- Library of Congress Hawaii Map Collections
<https://www.loc.gov/maps/?fa=subject:hawaii>
 - Big Island collection <https://www.loc.gov/item/2021589613/>
- University of Hawai'i at Manoa (includes long list of thematic maps)
<https://guides.library.manoa.hawaii.edu/maps/hawaii>
- University of Alabama
https://alabamamaps.ua.edu/historicalmaps/us_states/hawaii/index2.htm

Hawaii Thematic Maps – based on data from satellites

- Digital Tectonic Activity map
 - Download - <https://visibleearth.nasa.gov/images/88415/digital-tectonic-activity-map/88415t>
 - “Global Tectonic and Volcanic Activity of the Last One Million Years” - <https://core2.gsfc.nasa.gov/research/lowman/lowman.html>
- Development of Hawaiian LCMAP <https://www.sciencedirect.com/science/article/pii/S1569843222002035#f0015>
 - Historical Land Use Map 1901 <https://www.loc.gov/resource/gmdtitlecolmaps.hi-011/?sp=8>
- USGS Geologic Map of the State of Hawai'i <https://pubs.usgs.gov/publication/sim3143>
- Atlas of Hawaiian Watersheds and their Aquatic Resources (web and PDF) <https://www.hawaiiwatershedatlas.com/index.html>

Landsat Data & Images

- NASA Worldview (images) <https://worldview.earthdata.nasa.gov>
 - Maui Fire 2023 <https://go.nasa.gov/3UI25JC>
 - Snow on Mauna Kea Dec 2016 <https://go.nasa.gov/3OIYUh9>
- USGS Earth Explorer (data) <https://earthexplorer.usgs.gov>
- Galleries of Landsat images <https://landsat.gsfc.nasa.gov/multimedia/galleries/>
- Full list of data resources <https://landsat.gsfc.nasa.gov/data/>
- Geographia Landsat Feature <https://landsat.gsfc.nasa.gov/outreach/feature-geographia/>

Mapping resources:

- AEROKATS - Advancing Earth Research Observations with Kites and Atmospheric/Terrestrial Sensors - <https://www.globe.gov/web/aren-project/overview/aerokats>
- Participation opportunities - <https://www.globe.gov/web/aren-project/overview/aren-and-globe/participation-opportunities>
- Contact Geoff Bland geoffrey.l.bland@nasa.gov (mention Ginger sent you)

Tutorials for data and images

- Using NASA Worldview tutorial
<https://www.earthdata.nasa.gov/worldview/earth-day-satellite-views>
- Creating a Landsat Image in Photoshop
<https://landsat.gsfc.nasa.gov/creating-a-landsat-image/>
- [Creating a Landsat Image in Photoshop \(ArcGIS StoryMap, October 2023\)](#)
- [How to Make a Landsat Image Using Adobe Photoshop \(Full Video Tutorial, October 2023\)](#)
- [How to Pan-sharpen Landsat Imagery \(June 2017\)](#)
- How to make a natural color Landsat image
<https://earthobservatory.nasa.gov/blogs/elegantfigures/2013/10/22/how-to-make-a-true-color-landsat-8-image/>
- Hawaii volcano mapping activity using ArcGIS Living Atlas
<https://www.esri.com/arcgis-blog/products/arcgis-online/mapping/map-in-a-minute-volcanic/>
- Photoshop tutorial on Landsat 8 images <https://www.shadedrelief.com/landsat8/>
 - L8 image of Hawaii https://www.shadedrelief.com/Big_Island/
- Updating and Enhancing Maps with Landsat 8
<https://www.avenza.com/resources/blog/2019/06/13/enhancing-maps-with-landsat-8/>

Landsat - Informal activities

- Landsat Games and Activities
<https://landsat.gsfc.nasa.gov/outreach/games-activities-stories/>
- STELLA, DIY spectrometer <https://landsat.gsfc.nasa.gov/stella/>
- Camp Landsat <https://landsat.gsfc.nasa.gov/outreach/camp-landsat/>

NASA data Lesson plans & data investigations:

- Data Literacy Cube
<https://myNASAdata.larc.nasa.gov/data-literacy-cubes-graphs-maps-and-data-tables>
- Exploring the Tradeoffs of Surface Temperature Models
<https://myNASAdata.larc.nasa.gov/interactive-models/exploring-tradeoffs-surface-temperature-models>

Earth to Sky – Hawaii Hui Workshop Jan. 29-31, 2024

- Exploring Satellite Imagery and False Color Images
<https://mynasadata.larc.nasa.gov/lesson-plans/exploring-satellite-imagery-and-false-color-images>
- Analyzing Land Changes Over Time
<https://mynasadata.larc.nasa.gov/lesson-plans/analyzing-land-changes-over-time>
- Identifying Changes in Land Use
<https://mynasadata.larc.nasa.gov/mini-lessonactivity/identifying-changes-land-use>
- Tracking Change Over Time-Understanding Remote Sensing
<https://mynasadata.larc.nasa.gov/lesson-plans/tracking-change-over-time-understanding-remote-sensing>

Questions:

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