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 https://earthobservatory.nasa.gov/images/3510/hawaiian-islands
- Landsat + Shuttle Radar Topography Mission (SRTM) https://www.jpl.nasa.gov/images/pia02727-perspective-view-landsat-overlay-oahu-hawaii
- Oahu Flythrough - ASTER https://svs.gsfc.nasa.gov/30010
    - Article - https://earthobservatory.nasa.gov/images/76244/oahu-hawaii

Hawaii Historical Maps:

- Library of Congress Hawaii Map Collections https://www.loc.gov/maps/?fa=subject:hawaii
- 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

- Development of Hawaiian LCMAP https://www.sciencedirect.com/science/article/pii/S1569843222002035#f0015
- 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
    - Waikele watershed: https://www.hawaiiwatershedatlas.com/watersheds/oahu/34010.pdf

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Landsat Data & Images

- NASA Worldview (images) https://worldview.earthdata.nasa.gov
- 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/

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
- 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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