

NOAA OFFICE FOR COASTAL MANAGEMENT

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52 Years of Ocean and Coastal Conservation

1972 to 2024



Coastal Zone
Management Act
(CZMA)



National Marine
Sanctuaries Act
(NMSA)



Marine Mammals
Protection Act
(MMPA)



Clean Water Act
(CWA)

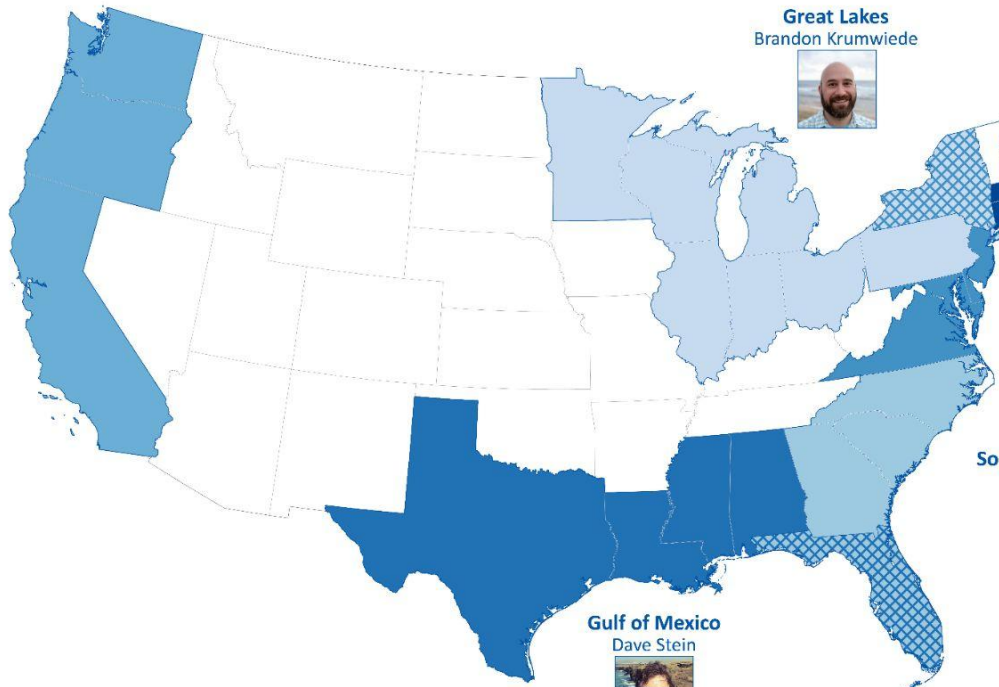




Alaska
Jaci Overbeck



West Coast
Bret Folger



Great Lakes
Brandon Krumwiede



Northeast
Jamie Carter



Mid-Atlantic
Supriya Khadke



Southeast & Caribbean
Matt Pendleton



Gulf of Mexico
Dave Stein



* Hatched states are served by two coordinators. In Florida you may contact Dave Stein or Matt Pendleton for assistance. In New York you may contact Brandon Krumwiede or Supriya Khadke for assistance.



Pacific Islands
Andy McGowan





DATA



TOOLS



TRAINING



STORIES



TOPICS



PARTNERS



ABOUT



DIGITAL COAST

Dive in to Get the Data, Tools, and Training That
Communities Need to Address Coastal Issues

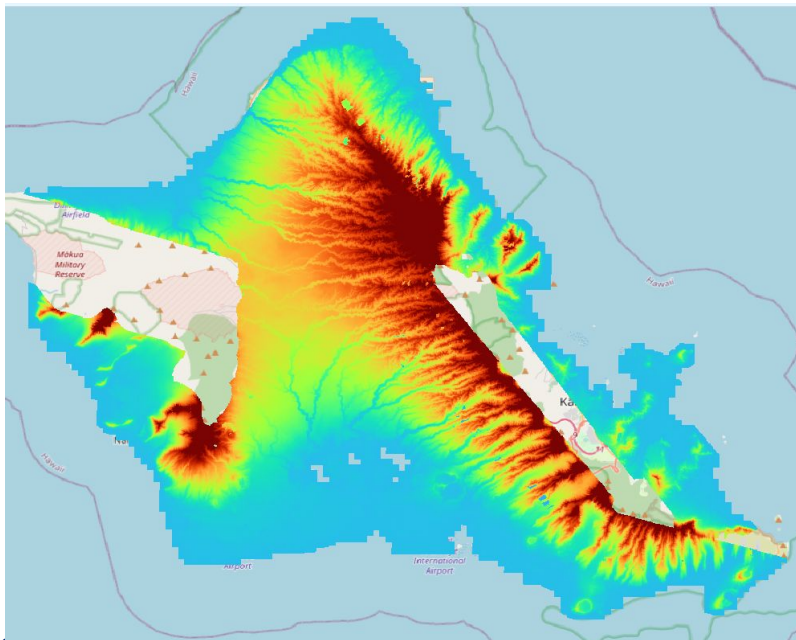
Scroll To Continue



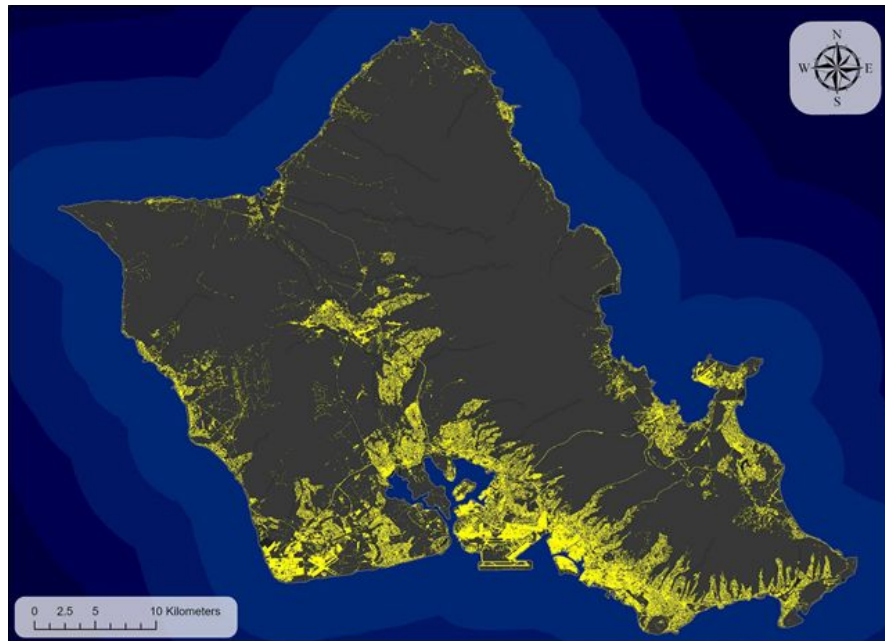
<https://coast.noaa.gov/digitalcoast/>

Lidar and Landcover

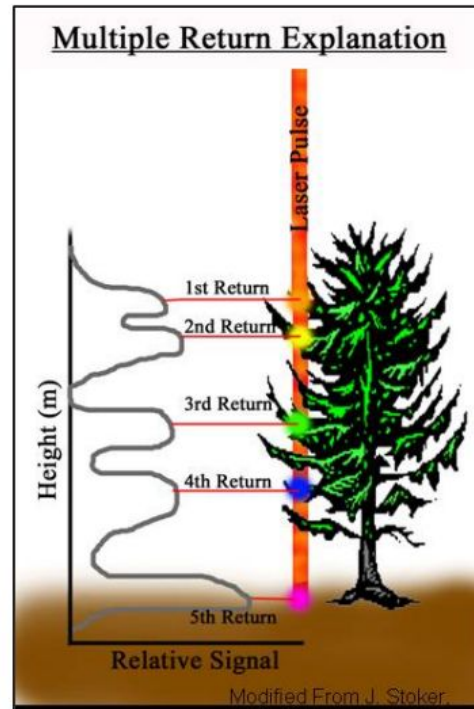
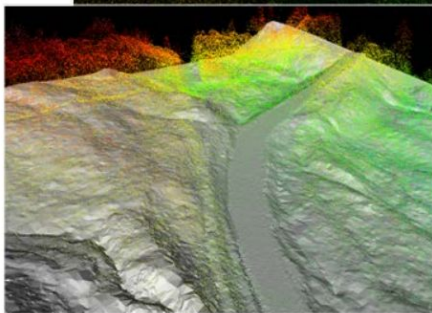
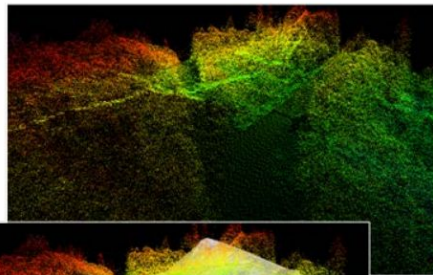
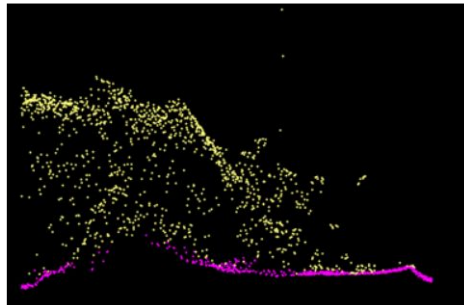
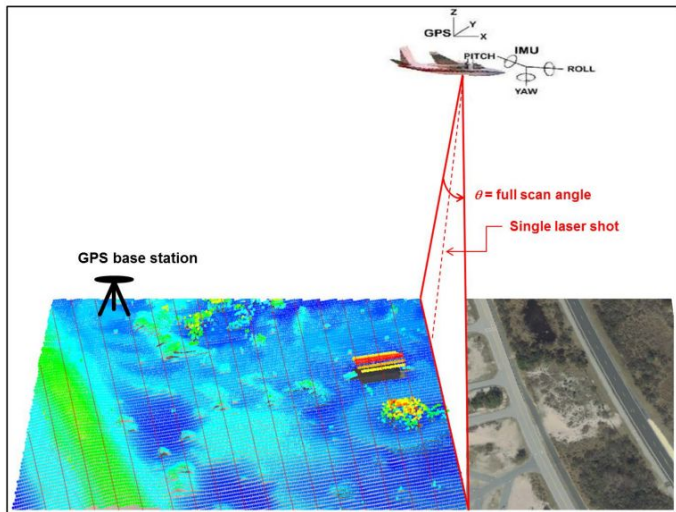
Elevation



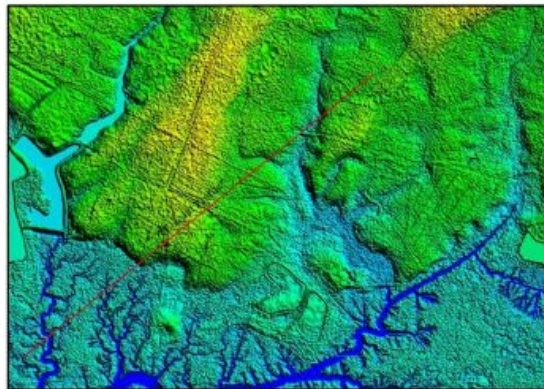
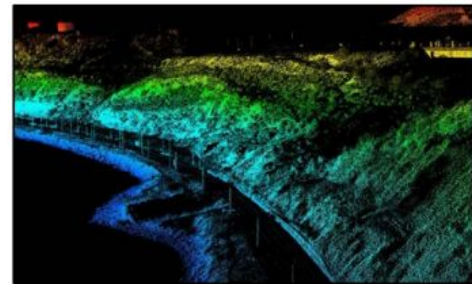
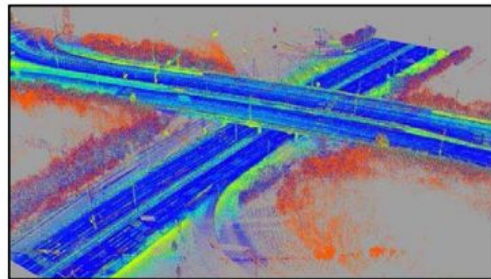
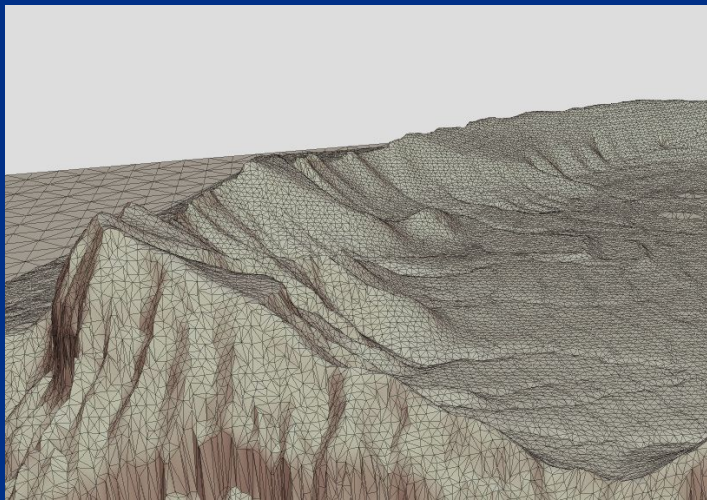
CCAP (Coastal Change Analysis Program)



Lidar



Points, lines, pixels



Land Cover

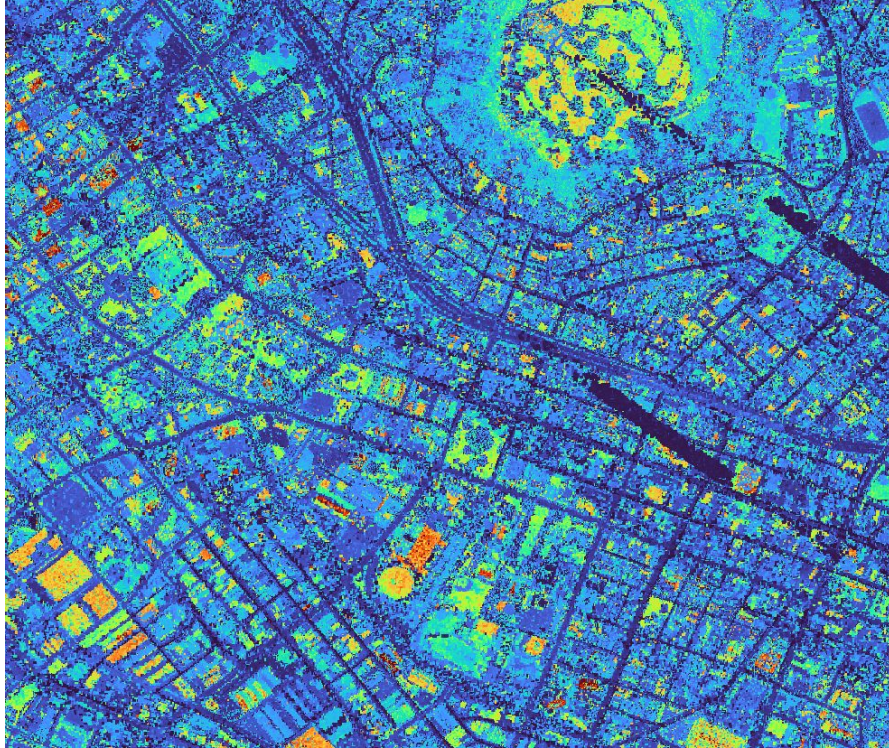
- Primarily imagery based
- Can have multiple platforms for imagery collection
- USDA NAIP imagery (flown) used for this latest CCAP 1-meter product.
- Previously have used satellite imagery for Pacific Islands.

The screenshot displays the NOAA Digital Coast Data Access Viewer interface. The main map area shows the Hawaiian Islands with land cover data overlaid in yellow. The text 'Pacific Ocean' is visible above the map, and 'UNITED STATES' is centered over the islands. Labels for 'Honolulu' and 'Hilo' are present. A search bar at the top left contains the text 'Search By Address, La'. To the right of the search bar are buttons for 'Draw', 'X', and a magnifying glass icon. Below the search bar, there are 'Filter by' and 'Sort Res' dropdown menus. On the right side of the interface, a search result is displayed: '2021 - 2023 USDA NAIP 4-Band 8 Bit Imagery: Hawaii USDA'. Below this result, it shows '297.23 GB' with a red triangle icon and a 'BULK DOWNLOAD' link. At the bottom of the map area, there are zoom controls (+, -), a 'Charts' button, a 'Satellite' button, and a '50 mi' scale bar. The bottom right corner of the interface indicates 'Showing 1 results'.



Remote Sensing

Lidar Intensity



Single band image



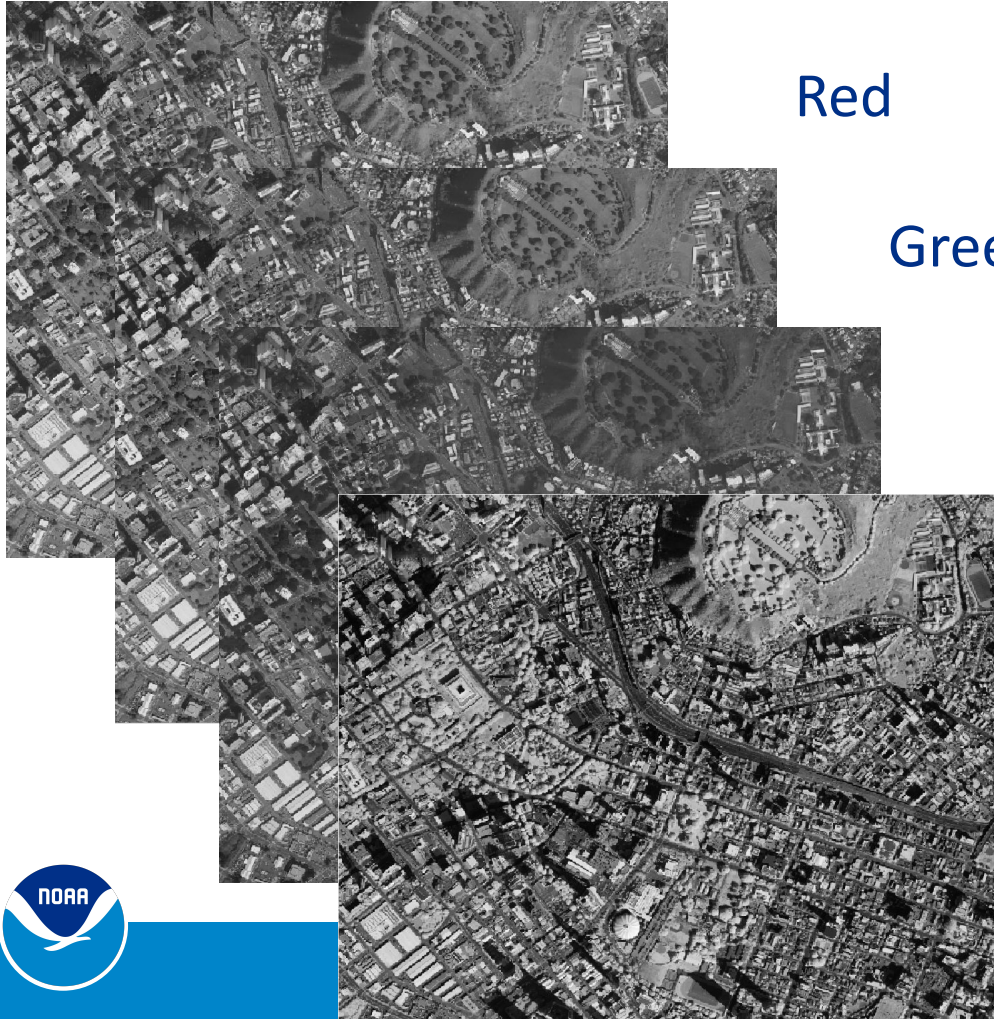
Imagery bands

Red

Green

Blue

Near Infrared



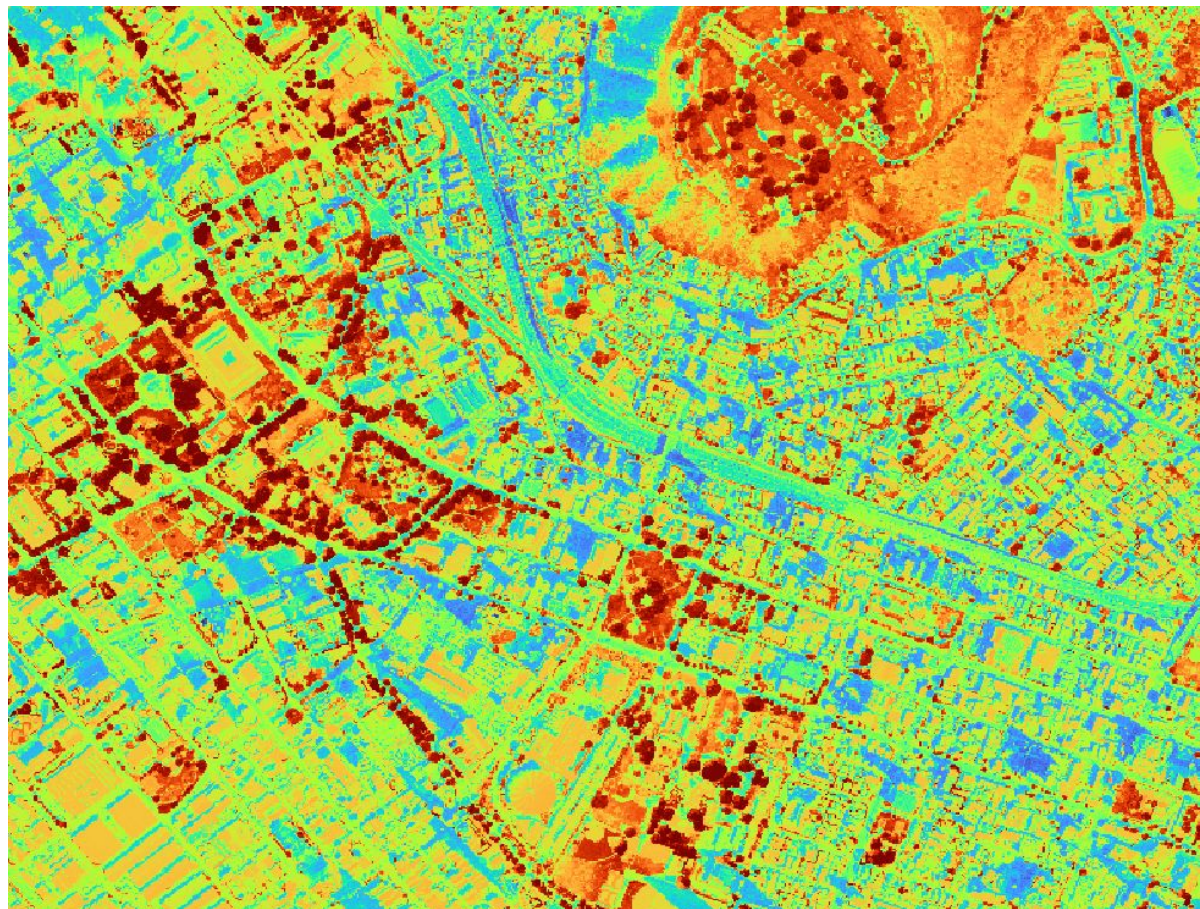
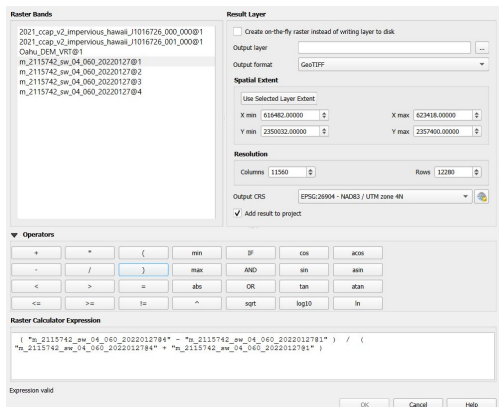
Imagery Bands



Band Calculations

NDVI

NIR-Red / NIR + Red



Lidar point Cloud

Add to Cart

0 in cart

Project developed and maintained at NOAA's Office for Coastal Management in Charleston, SC. Efforts were made to classify lidar data for specific needs.

Also available as a Bulk Download.

Attributes

Data Source: Point Cloud

Note: Due to vertical datum limitations in the Hawaiian Islands, Geoid12a varies an average of 65cm above Local Mean Sea Level (LMSL)

Vertical Accuracy (cm): 10.1 - Tested to meet vertical accuracy (RMSEz) in open terrain

Horizontal Accuracy (cm): 100 - Not tested

Estimated Point Spacing (m): 0.64

Data classes available: Unclassified, Ignored Ground, Breakline, Overlap default, Overlap ground, Ground (noise), Water

Tide controlled: No

Related Links

Metadata

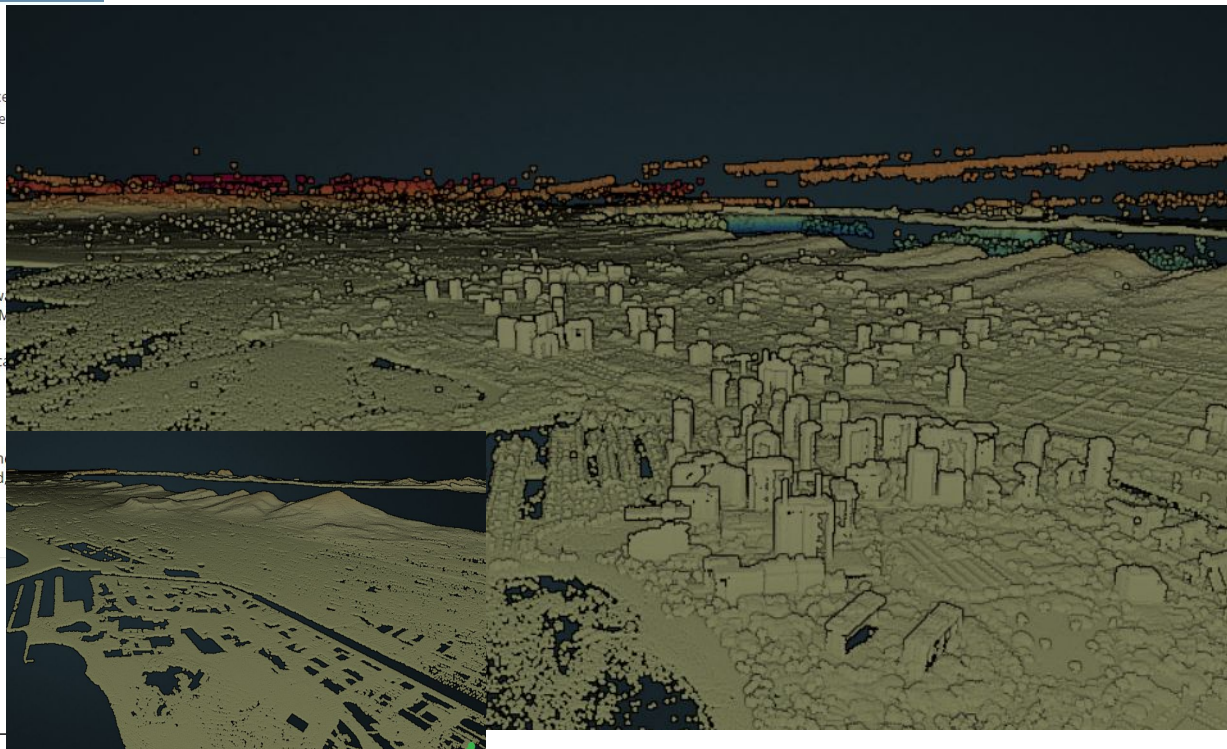
Collection Report

QA Report

Survey Report

EPT (USGS:USGS_LPC_HI_Oahu_2012_LAS_2015)

3D Viewer (Potree USGS)



Potree



Data Products

Imagery :

- USDA National Agricultural Imagery Program
- 4 Band Composite Image
- 60 cm resolution
- Statewide





DATA ACCESS VIEWER

Discover, customize, and download authoritative land cover, imagery, and lidar data.

Powered by **DIGITAL COAST**

Choose a Data Type to Explore

[Imagery](#) [Land Cover](#) [Elevation/Lidar](#)

[ABOUT THIS TOOL](#)



Data Products

Land Cover :

- Based on NAIP Imagery
- 1 meter resolution
- 3 Categories :
Impervious, Canopy, Water
- Hawaii Statewide
- Coastal Nationwide





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Choose a Data Type to Explore

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[ABOUT THIS TOOL](#)



Data Products

Elevation :

- Point Data, Digital Elevation Models (DEM)
- Multiple options for download and data selectivity
- Piecewise datasets across the state.



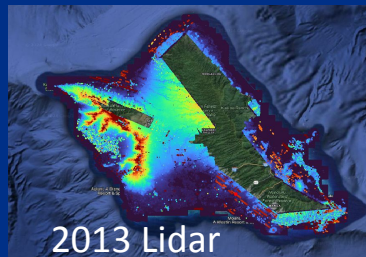
The screenshot shows the NOAA Data Access Viewer interface. At the top center is the NOAA logo, which includes the text "NOAA" and "NATIONAL OCEANOGRAPHIC AND ATMOSPHERIC ADMINISTRATION U.S. DEPARTMENT OF COMMERCE". Below the logo, the title "DATA ACCESS VIEWER" is displayed in large, white, sans-serif font. Underneath the title, a subtitle reads "Discover, customize, and download authoritative land cover, imagery, and lidar data." Below this, it says "Powered by DIGITAL COAST". A prompt "Choose a Data Type to Explore" is followed by three green buttons: "Imagery", "Land Cover", and "Elevation/Lidar". At the bottom right of the interface, there is a link labeled "ABOUT THIS TOOL". The background of the interface is a light blue map of the United States.



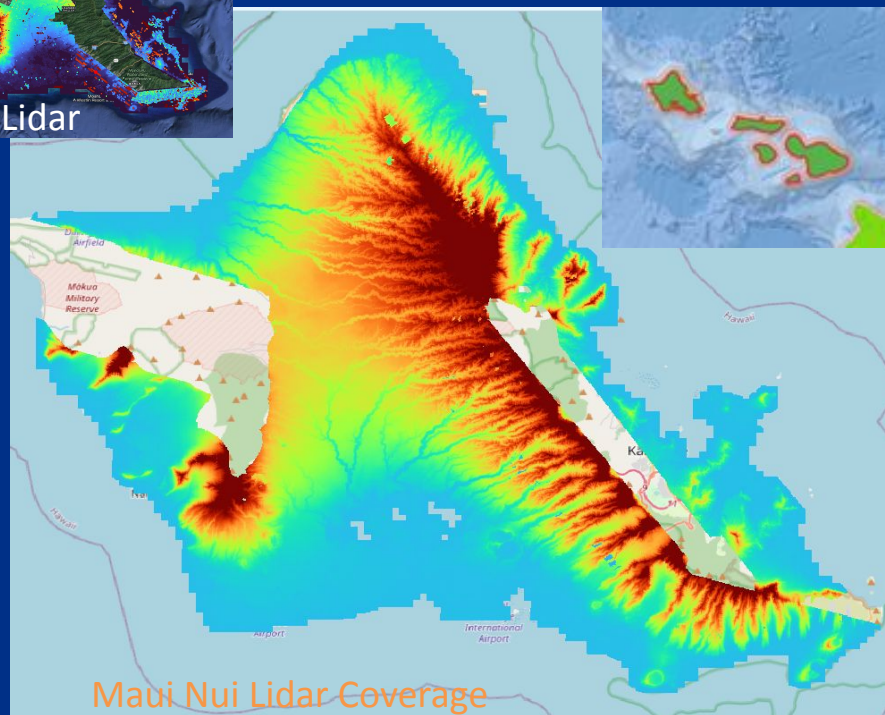
Data Products

Elevation : Maui Nui

USGS update



Preliminary data have been made available to the project partners for the Maui Nui 3D Elevation Program (3DEP) project. The contractor is still processing and finalizing the lidar data deliverables for the Maui Nui project. Delivery of the final dataset to USGS is targeted for June 2024. USGS will then review the lidar through its Data Validation process. When the data pass the review and are accepted, the data will be prepared for online access by the public at the USGS National Map



Elevation : 3D Hydrography Program

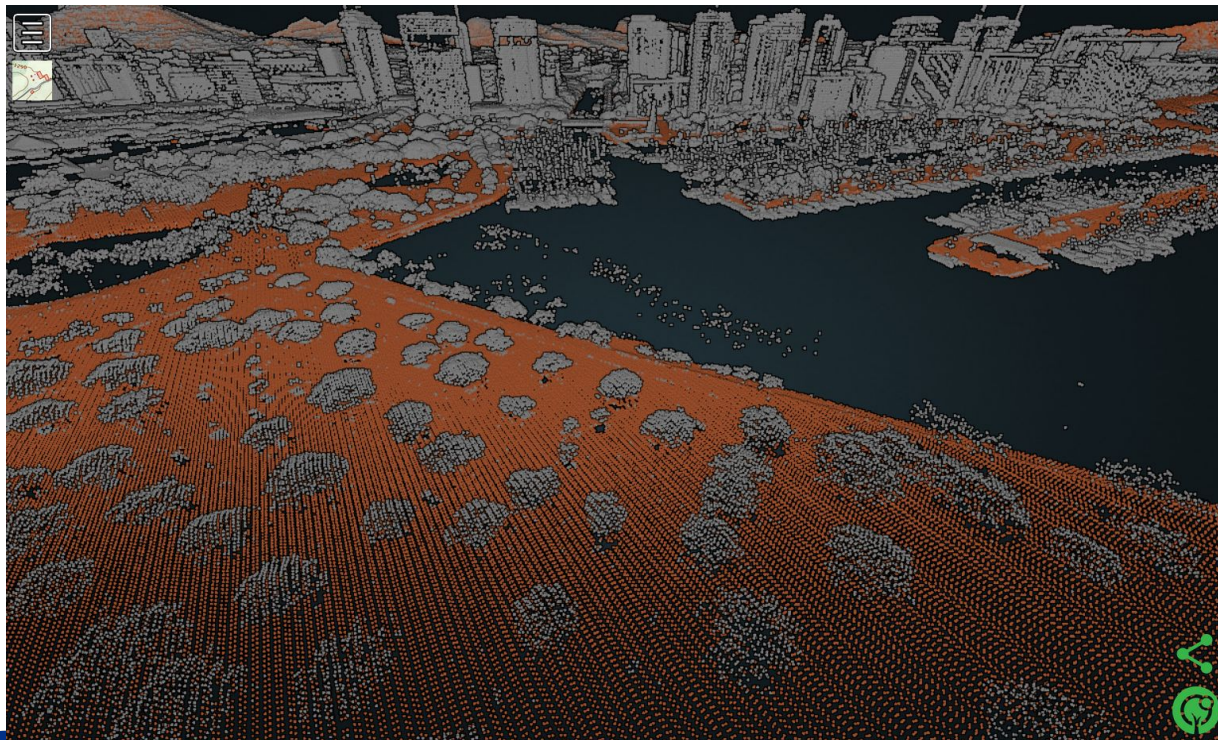
USGS update

The implementation of 3D National Hydrography Program (3DHP) marks the start of a new era of water data - the first systematic remapping of the Nation's hydrography since the original USGS 1:24,000-scale topographic mapping program was active. The 3DHP will significantly improve the level of detail, currency, and content of hydrography data by deriving (1) three-dimensional (3D) stream network datasets and watersheds from high-quality 3D Elevation Program (3DEP) data and (2) other elevation derivatives to support applications like hydrologic and hydraulic modeling (Figure 1). The 3DHP will improve the ability to track information related to water as it moves through the hydrologic cycle by connecting surface-water features traditionally represented in the National Hydrography Dataset (NHD) to data about wetlands, engineered hydrologic systems, and groundwater; it will also improve the attribution of important hydrologic characteristics like streamflow permanence.

Data Products



Derived Products



Digital Surface Models

Relative Height
Models

Change Analysis

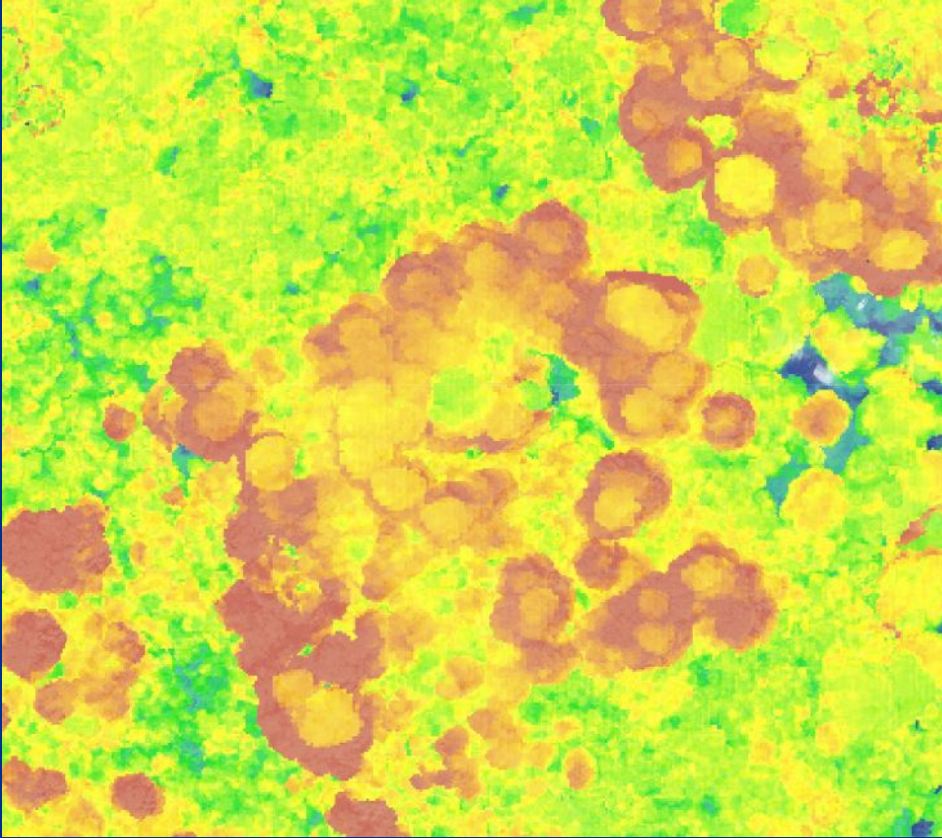
Filter for specific
Categories ie. Bridge
deck, wires, trees.

PDF exports

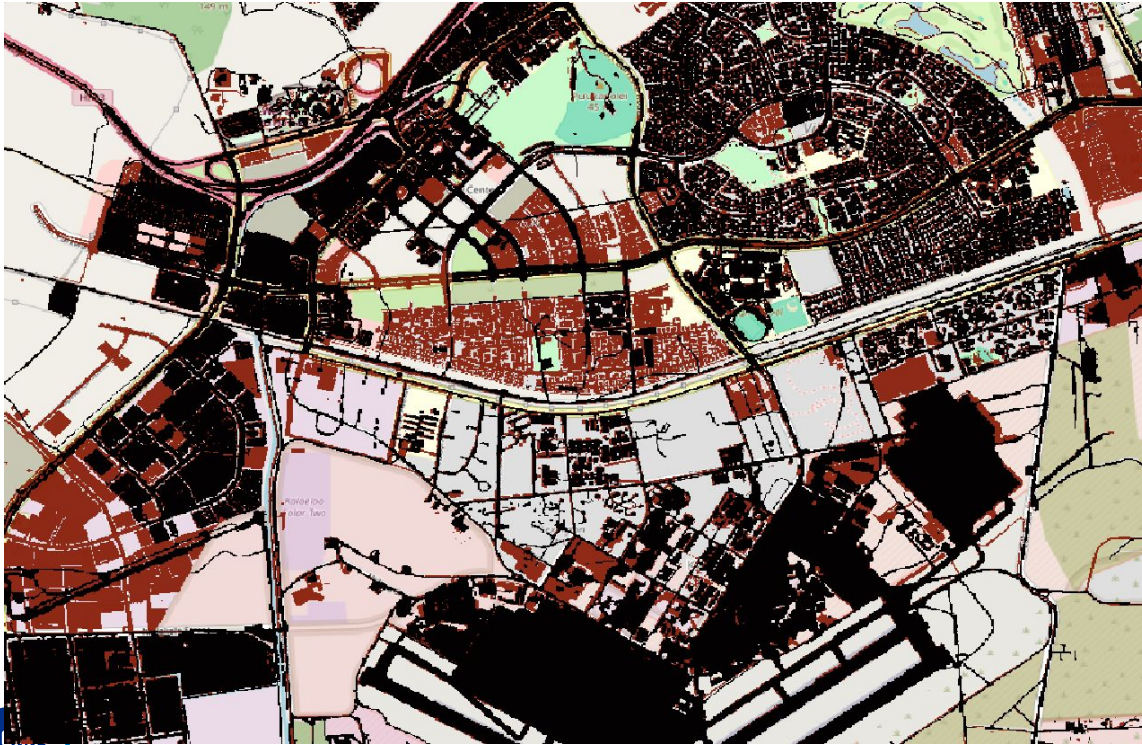


Lidar Change

Canopy Height
Change Analysis
between recent
Maui Nui Lidar and
2013 Lidar.

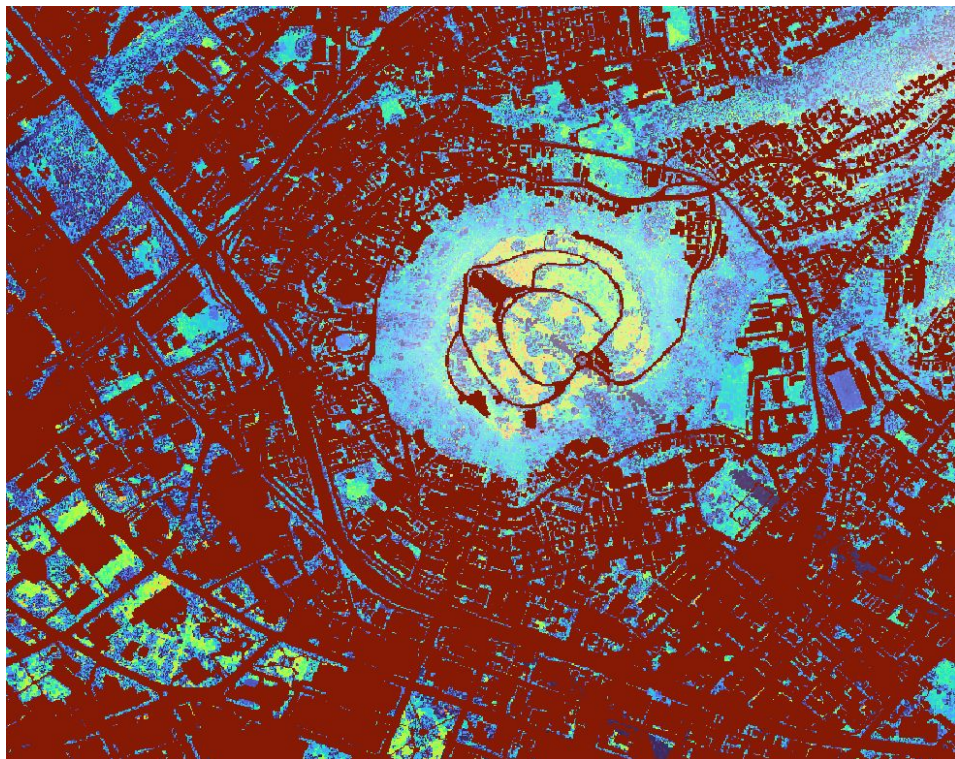


Land Cover Change analysis



CCAP
Impervious
2011 vs. 2021
Kapolei Oahu





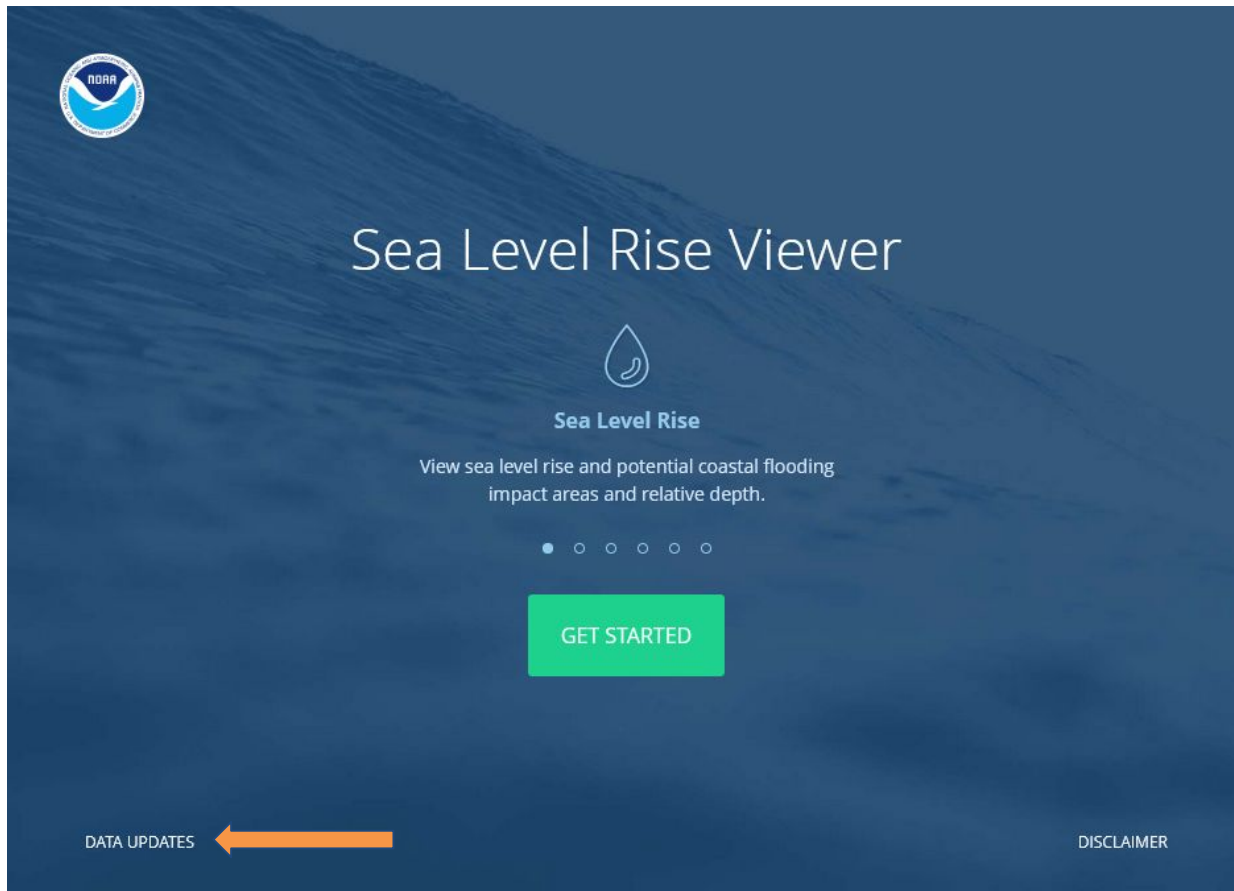
Products can be used to compliment each other

Elevation at road, Mask by canopy layer, etc.



Other Tools

This data helps support other Digital Coast Tools and Products.



The screenshot shows the NOAA Sea Level Rise Viewer interface. At the top left is the NOAA logo. The main heading is "Sea Level Rise Viewer" in white text. Below it is a white water drop icon containing a blue wave. Underneath the icon is the text "Sea Level Rise" in white. A descriptive sentence follows: "View sea level rise and potential coastal flooding impact areas and relative depth." Below this is a horizontal row of six small circles, with the first one filled in white. A prominent green button with the text "GET STARTED" is centered below the circles. At the bottom left, the text "DATA UPDATES" is followed by a thick orange arrow pointing to the left. At the bottom right, the text "DISCLAIMER" is visible.





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Dive in to Get the Data, Tools, and Training That
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