

GeoGov Summit 2023

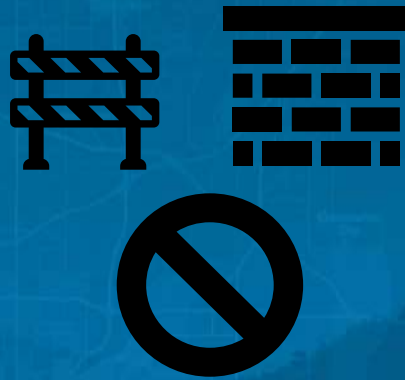
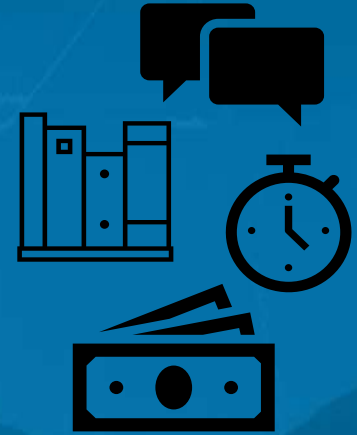
Deep Dive Session: EO From Space to Surface



Stephanie C. Dockstader
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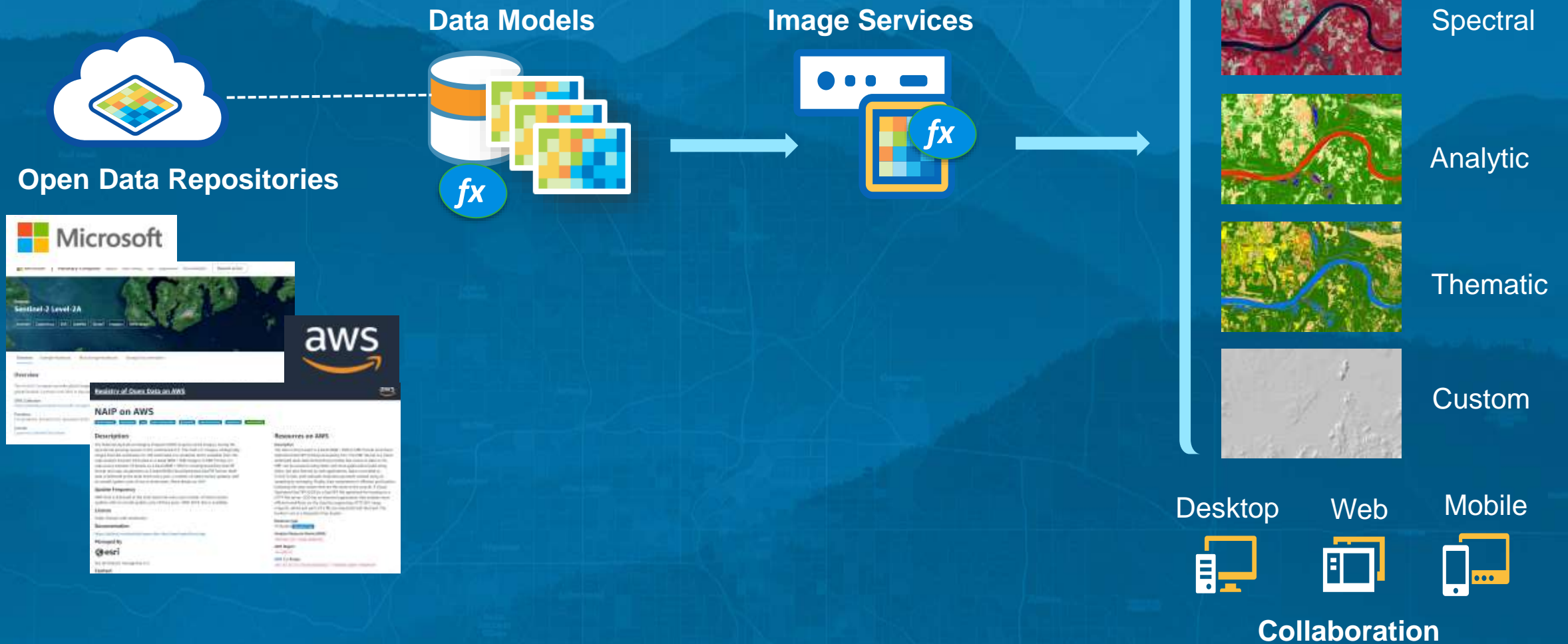
*Imagery and Remote Sensing
Public Sector Lead*

An Organizational Approach to
Public and Private Imagery for
Advanced Analytics



Everything Lives in the Cloud

Service Enabling Imagery Keeps Data in its Place

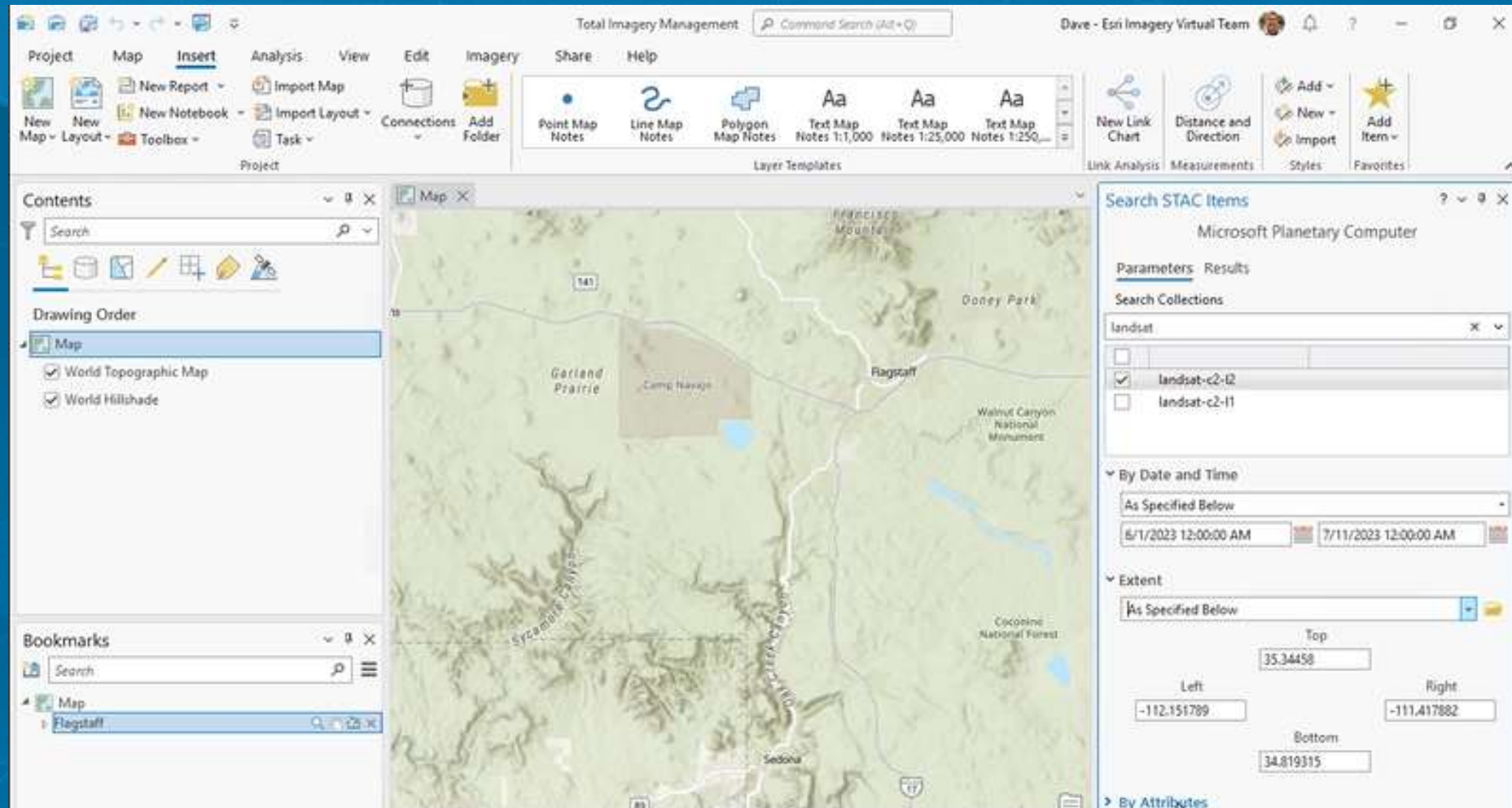


Key Component: Simple Search and Discovery

Empower Users with Personalized Filters

STAC is an Evolving Capability

User specific elements such as location or time make work with the catalogs more intuitive



STAC integration is planned ArcGIS Pro

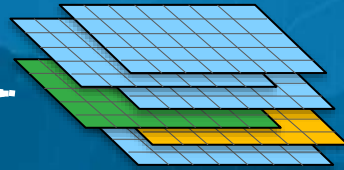
Key Component: Optimized Data Models

Pixels Over Pictures

Raster datasets,
Aerial & satellite images



Mosaic Dataset



Tile Cache
(TPK / TPKX)



Cloud Raster
Format
(CRF)

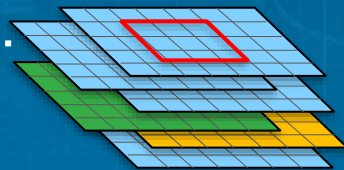


Visualization

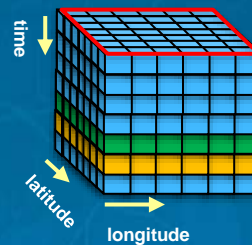
Scientific data
NetCDF, GRIB, HDF



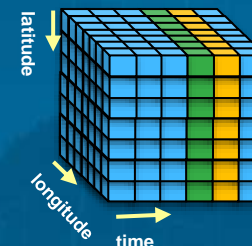
Multidimensional
Mosaic Dataset



Multidimensional CRF



Transposed CRF



Non-nadir imagery
Drones, 360, video,
street-side, etc.



Oriented Imagery Catalog



FMV

Lidar
Point Cloud



LAS Dataset



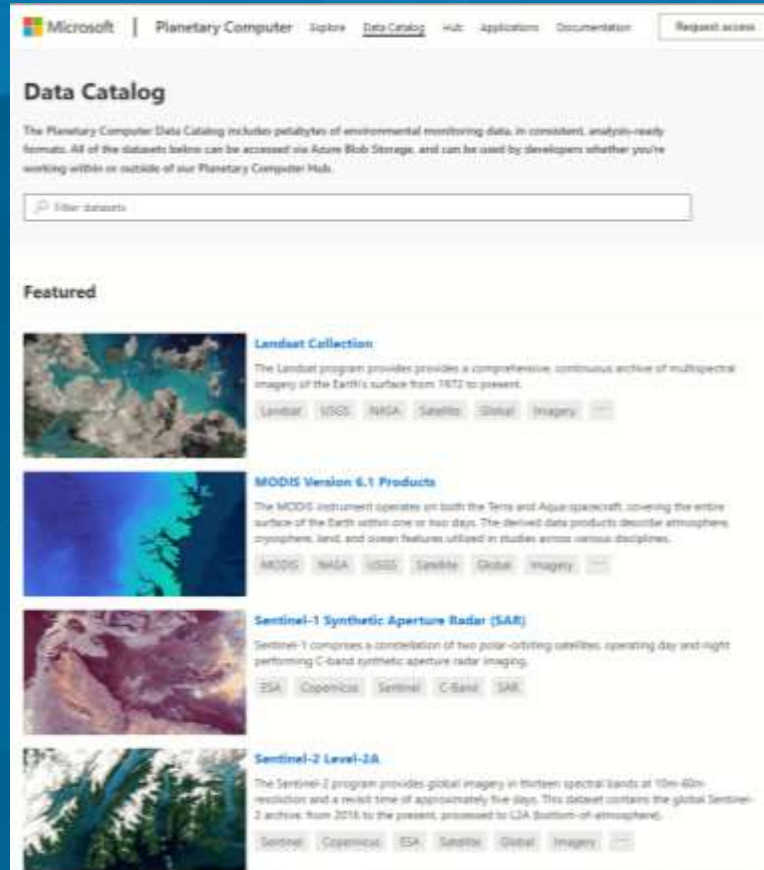
Point Cloud / SLPK



Key Component: Processing Next to Data

A Pre-Configured System Extends the Value of Big Data Science

ArcGIS for the Microsoft Planetary Computer



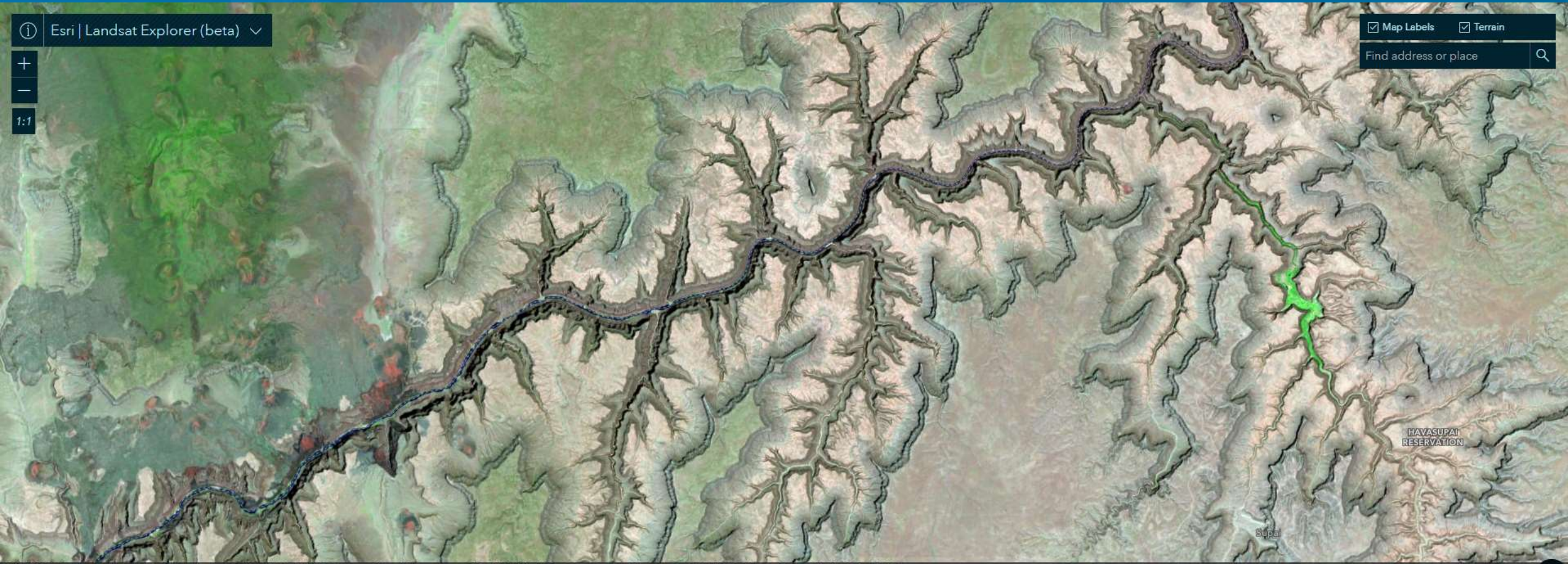
From Science to Decisions



Insights on a Global Scale

A collage of eight data analysis visualizations, each with a label: 'Feature Extraction' (a dark satellite image with red dots), 'Radar Analysis' (a purple-toned map), 'Classification' (a green-toned map with red and blue areas), 'Suitability Analysis' (a color-coded map of the United States), 'Multispectral Analysis' (a grayscale satellite image), 'Terrain Analysis' (a 3D topographic map of a region), 'Time-series' (a map of a region with a color scale from 0 to 4000), and 'Vegetation Indices' (a map showing green and red circular patterns). A 'Predictive Analysis' label is positioned at the bottom right of the collage.

Landsat Explorer



Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA | Earthstar Geographics | Source: Esri, USGS, Microsoft | Esri, NASA, NGA, USGS

Powered by

EXPLORE

DYNAMIC

SWIPE

FIND A SCENE

ANIMATE

ANALYSIS

DYNAMIC VIEW

In the current map display, the most recent and most cloud free scenes from the Landsat archive are prioritized and dynamically fused into a single mosaicked image layer. As you explore, the map continues to dynamically fetch and render the best available scenes.

To select a scene for a specific date, try the [FIND A SCENE](#) mode.

INTERESTING PLACES



RENDERER





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OF
WHERE**[®]