National Aeronautics and Space Administration

EARTHDATA

The Web Unification Project

Andi Thomas

Project Manager

Web Strategy and Communications Team

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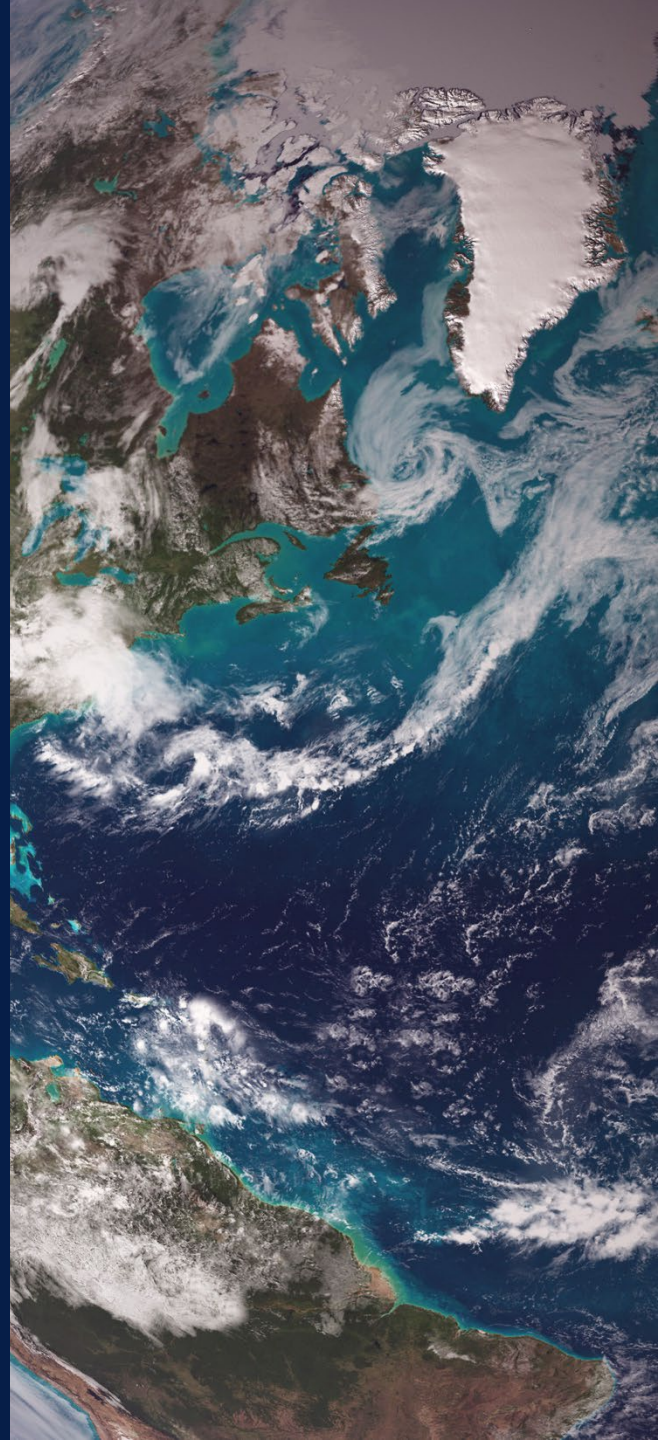


Hello, I am Andi Thomas

Manager for the Web Strategy and Communications Team

Background in remote sensing and GIS

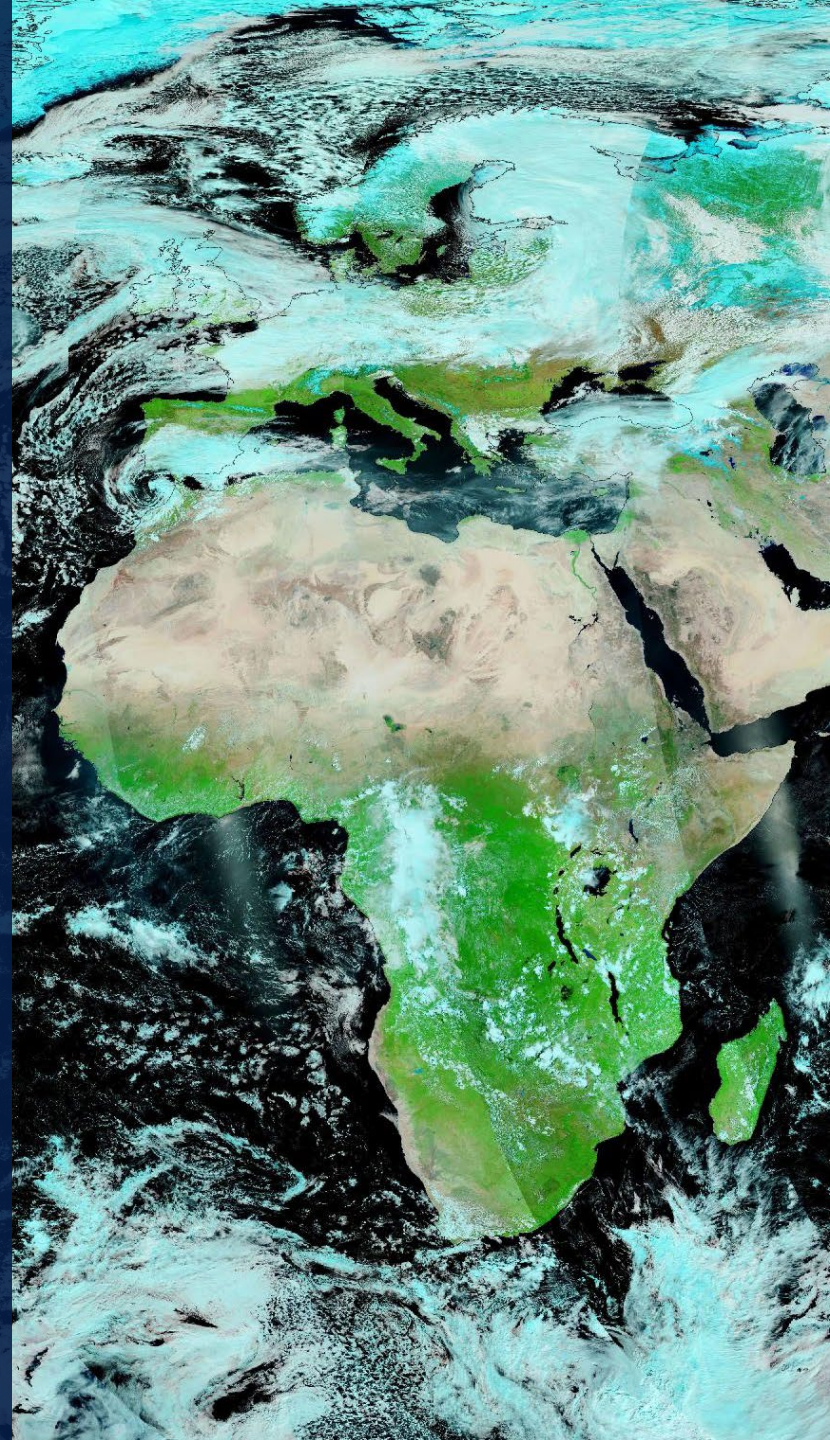
Trained communicator and project manager

Fulltime mom, wife, altruist

Parttime reader, horseman, runner (usually in that order)

National Aeronautics and Space Administration

Setting the stage for the Web Unification Project



Earth Science Data Systems Program

NASA's Earth Science Data Systems (ESDS) Program oversees the entire Earth science data life cycle and facilitates unrestricted access to the data researchers, managers, and governments need to understand and protect our planet.

Our Goals

Maintain a high level of service for the production and stewardship of science-quality data

Evolve our data systems for the next generation of missions, data sources, and user needs

Lead advanced technology to maximize the value of complex Earth science data for decision-making and fundamental research

Leverage diverse, global, Earth science communities to accelerate scientific discovery

Data Archive Summary

Website

Website Sessions (Google Analytics)
2.23 Million

Unique Datasets
18,045

Archive

Average Archive Growth
91.64 Terabytes/Day

Total Archive Volume in Cloud Only
44.25 Petabytes

Total Archive Volume Including in Cloud
102.5 Petabytes

Users

End User Average Distribution Volume
315.4 Terabytes/Day

End User Distribution Files from Cloud Only
526 Million

End User Distribution Files Including from Cloud
3504.9 Million

Distinct Users of EOSDIS Data & Services (Google Analytics)
5.01 Million

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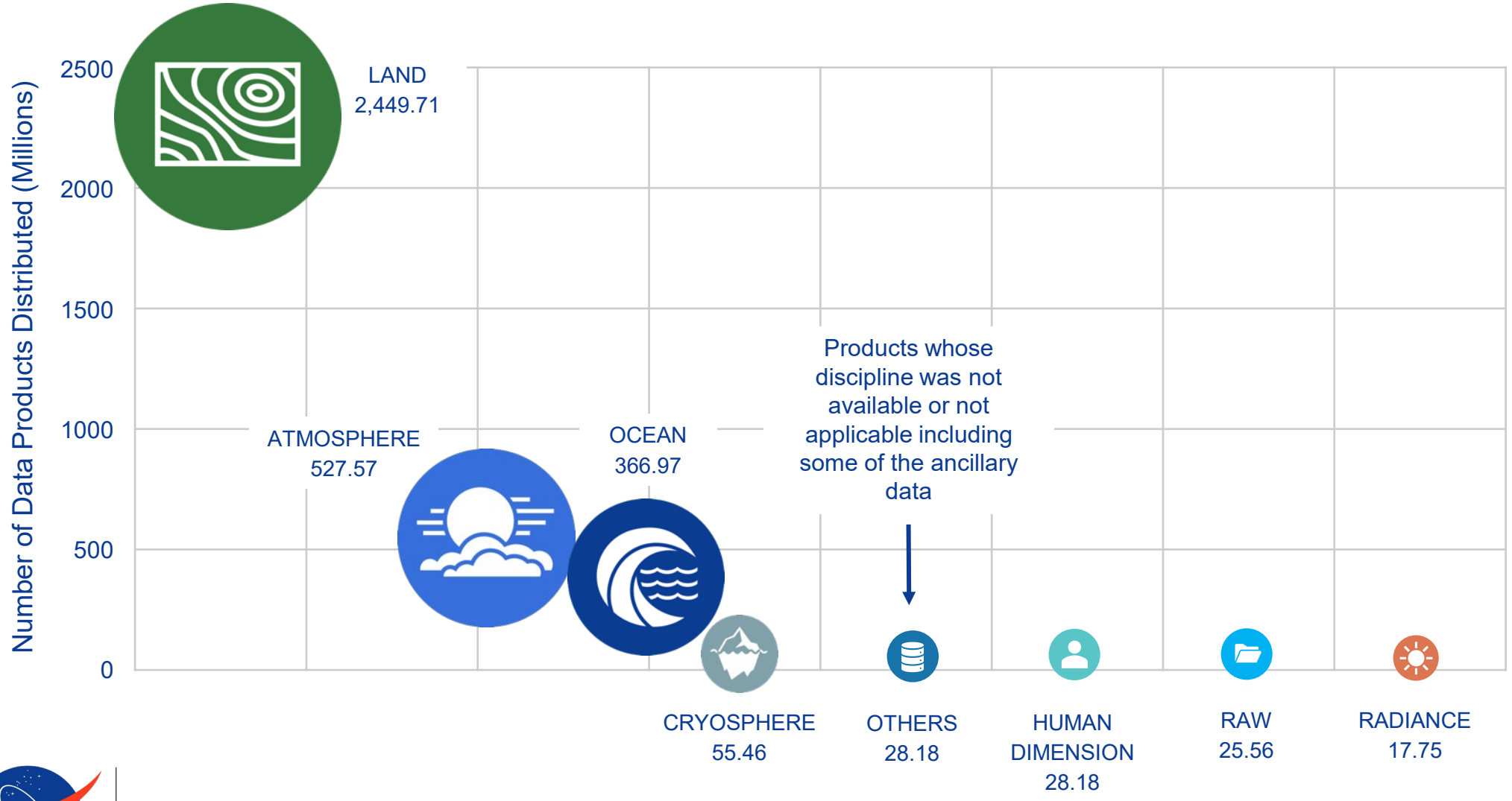
FY23 Number of Data Products Distributed by Discipline



National Aeronautics and Space Administration

NASA's Distributed Active Archive Centers (DAACs)

A federated approach to data management

Land Process DAAC

Land Cover, Surface Reflectance, Radiance, Temperature, Topography, Vegetation Indices

Physical Oceanography DAAC

Gravity, Sea Surface Temperature, Ocean Winds, Ocean Surface Topography, Sea Surface Salinity, Ocean Circulation

National Snow and Ice Data Center DAAC

Frozen Ground, Glaciers, Ice Sheets, Sea Ice, Snow, Soil Moisture, Cryosphere, Climate Interactions

Alaska Satellite Facility DAAC

Synthetic Aperture Radar (SAR) Products

Global Hydrometeorology Resource Center DAAC

Hazardous Weather, Lightning, Tropical Cyclones, Storm-Induced Hazards

Oak Ridge National Laboratory DAAC

Biogeochemical Dynamics, Ecological Data, Environmental Processes

Atmospheric Science Data Center

Radiation Budget, Clouds, Aerosols, Tropospheric Composition

Socioeconomic Data and Applications Center

Human Interactions, Land Use, Environmental Sustainability, Geospatial Data

Ocean Biology DAAC

Ocean Color, Sea Surface Temperature, Sea Surface Salinity

Crustal Dynamics Data Information System

Space Geodesy, Solid Earth

Goddard Earth Sciences Data and Information Services Center

Global Precipitation, Solar Irradiance, Atmospheric Composition and Dynamics, Global Modeling

Level 1 and Atmosphere Archive and Distribution System DAAC

MODIS Level-1 and Atmosphere Data Products

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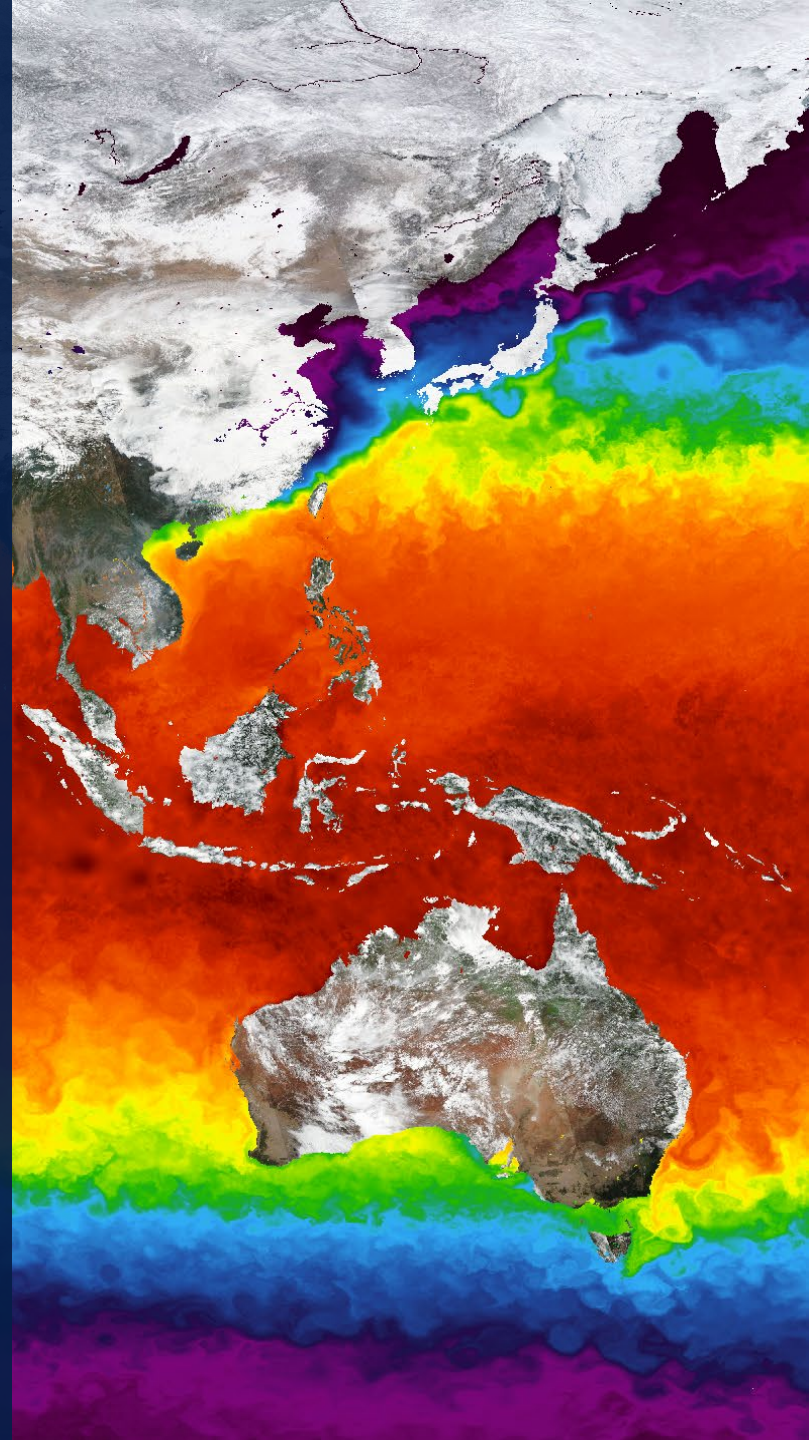
The Web Unification Project

What is it? What should I expect?



WEB UNIFICATION

Earth Science Data Systems Program

In response to the federal IDEA Act, by December 2026 all ESDS-funded public facing web properties are planned to migrate into a single domain.

improve discoverability and findability of Earth science data

provide consistent identity across platforms

build efficient pathways for users to access data and information

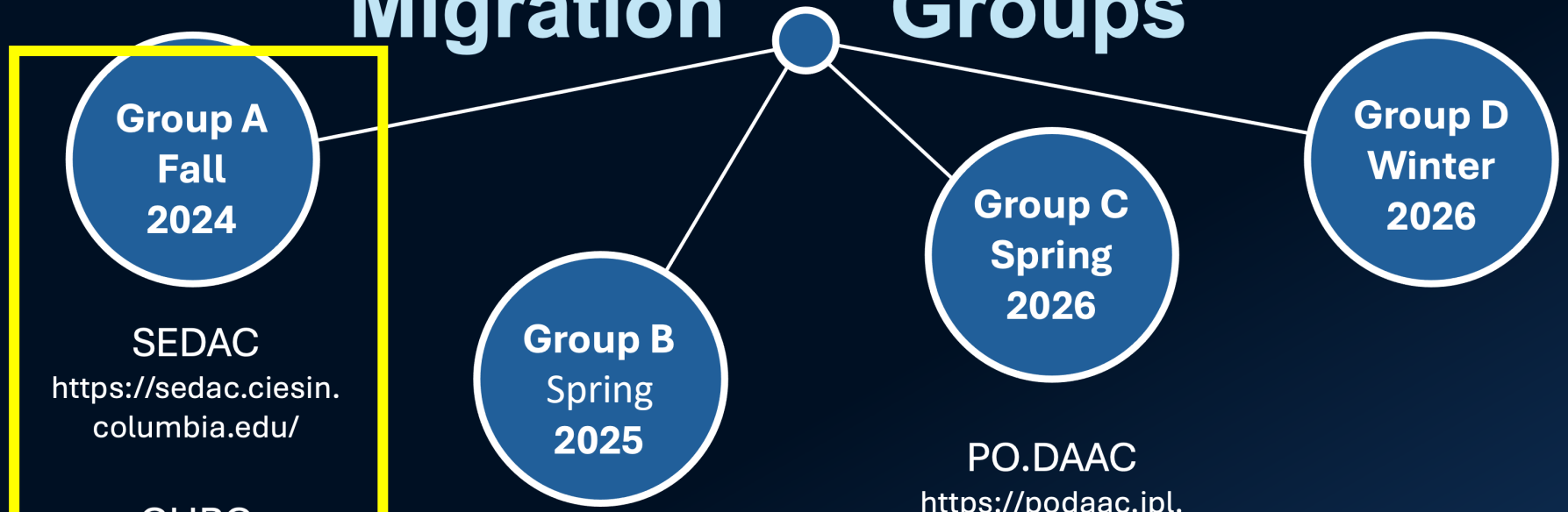
- optimizing for all users
  - continuing support for experienced power users
  - onboarding new users

reduce vulnerabilities by strengthening security

determine website usability, eliminate redundancy

maximize the effectiveness of communication efforts

Migration Groups



Group A Fall 2024

SEDAC
https://sedac.ciesin.columbia.edu/

GHRC
https://ghrc.nsstc.nasa.gov/home/

IMPACT
https://impact.earthdata.nasa.gov/

ASF DAAC
https://asf.alaska.edu/

Group B Spring 2025

CDDIS
https://cddis.nasa.gov/

ORNL DAAC
https://daac.ornl.gov/

LP DAAC
https://lpdaac.usgs.gov/

Group C Spring 2026

PO.DAAC
https://podaac.jpl.nasa.gov/

SLC Portal
https://sealevel.nasa.gov/

OB.DAAC
https://oceancolor.gsfc.nasa.gov/

SeaDAS
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Group D Winter 2026

NSIDC
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LANCE
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GES DISC
https://disc.gsfc.nasa.gov/

ASDC
https://asdc.larc.nasa.gov/

SIPS
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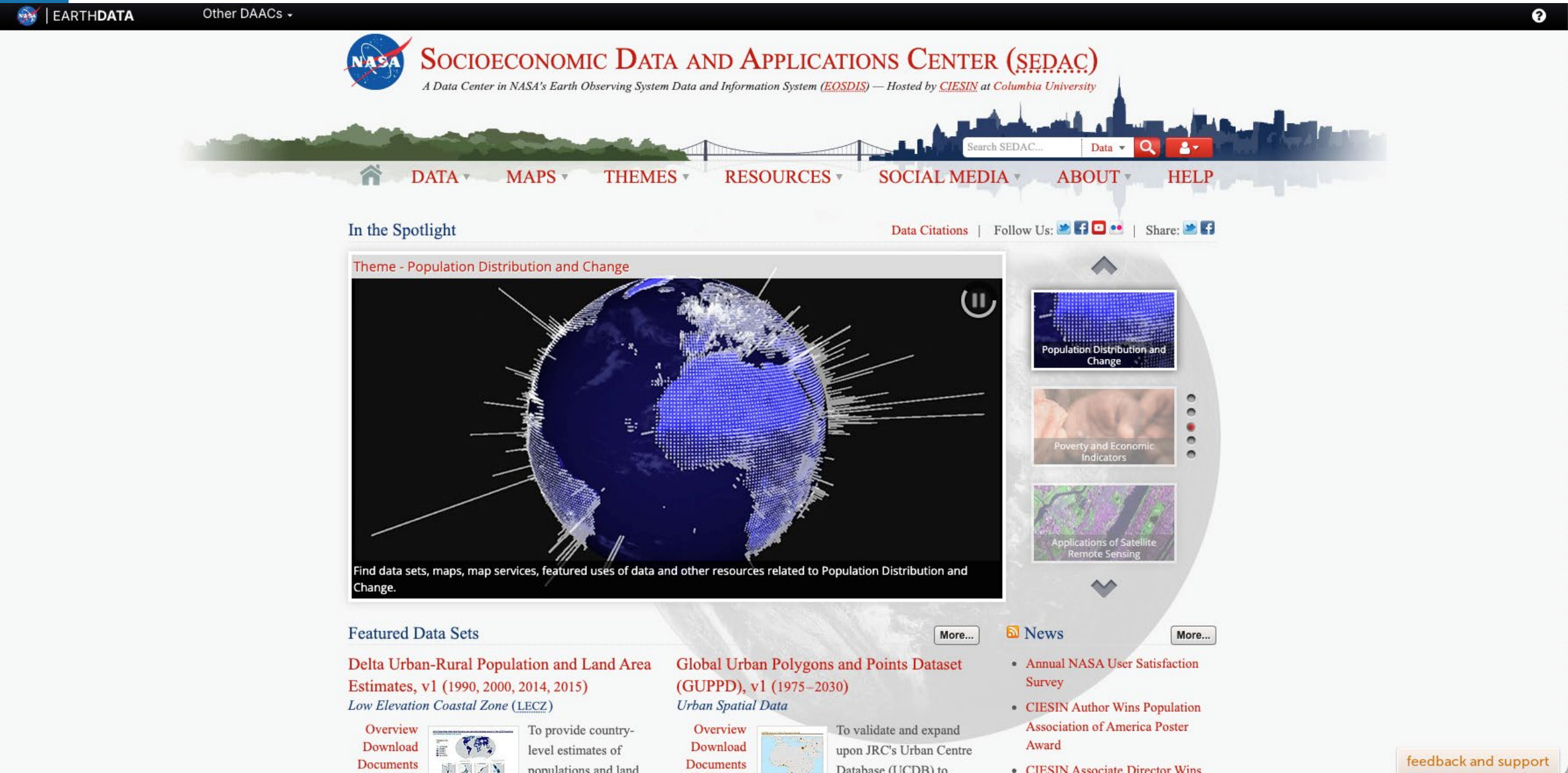
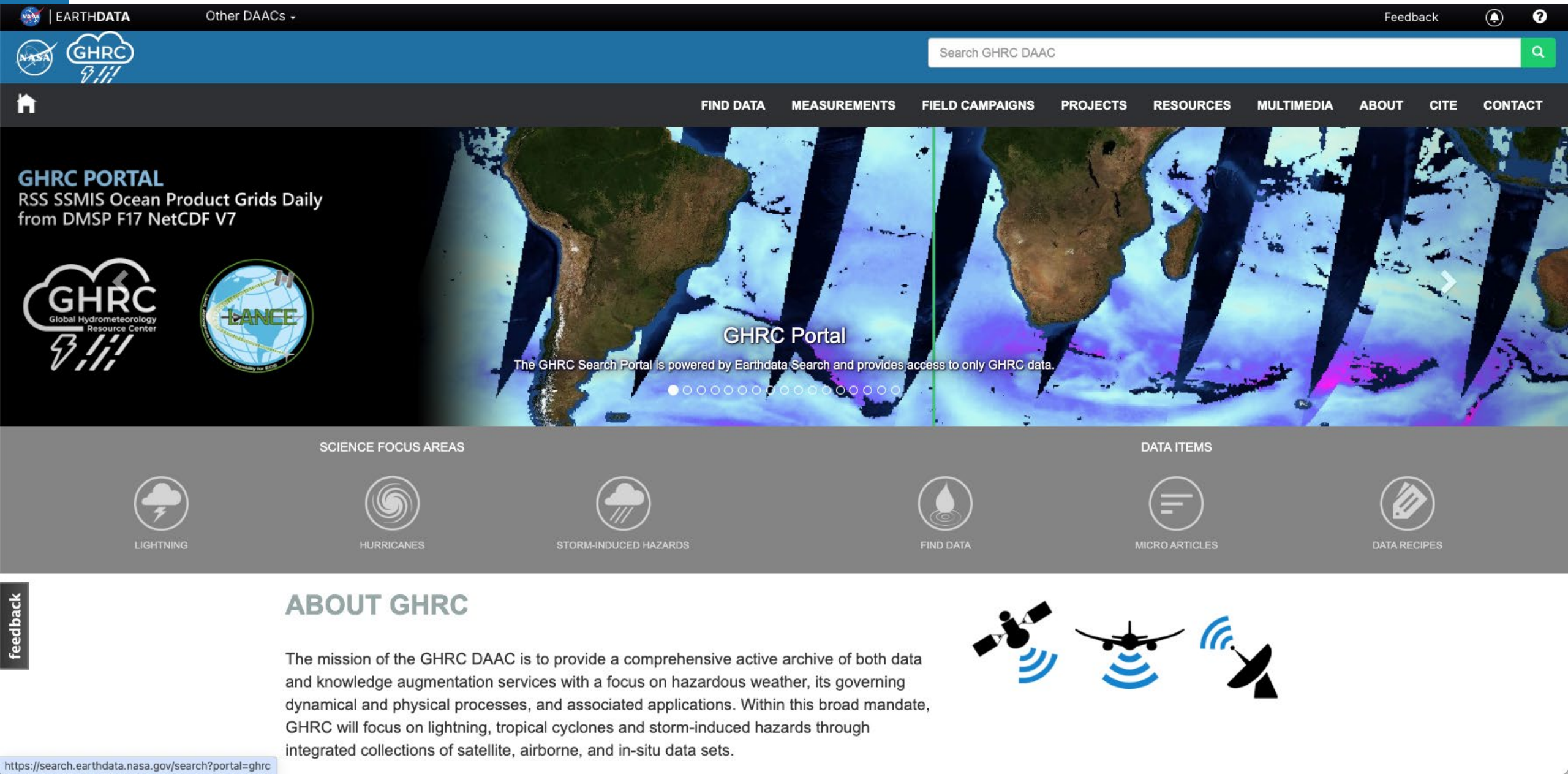
CASEI
https://impact.earthdata.nasa.gov/casei/

Socioeconomic Data and Applications Center (SEDAC DAAC))
Focused on Human Interactions, Land Use, Environmental Sustainability, and Geospatial Data



Global Hydrometeorology Resource Center (GHRC DAAC)
Focused on Hazardous Weather, Lightning, Tropical Cyclones, Storm Induced Hazards



Interagency Implementation and Advanced Concepts Team (IMPACT)

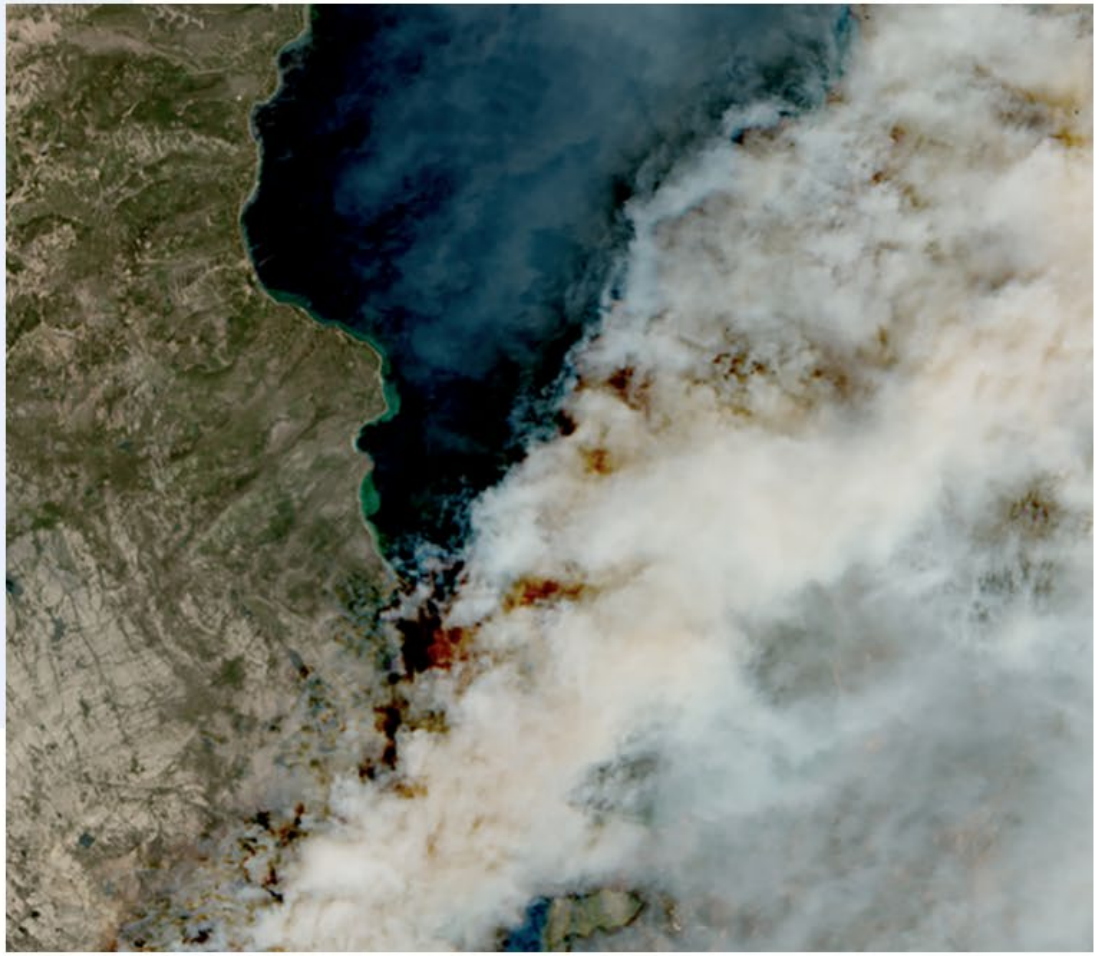
EARTHDATA
Powered by EOSDIS

Home Tools Projects Tech Talks Successes Blog Contact

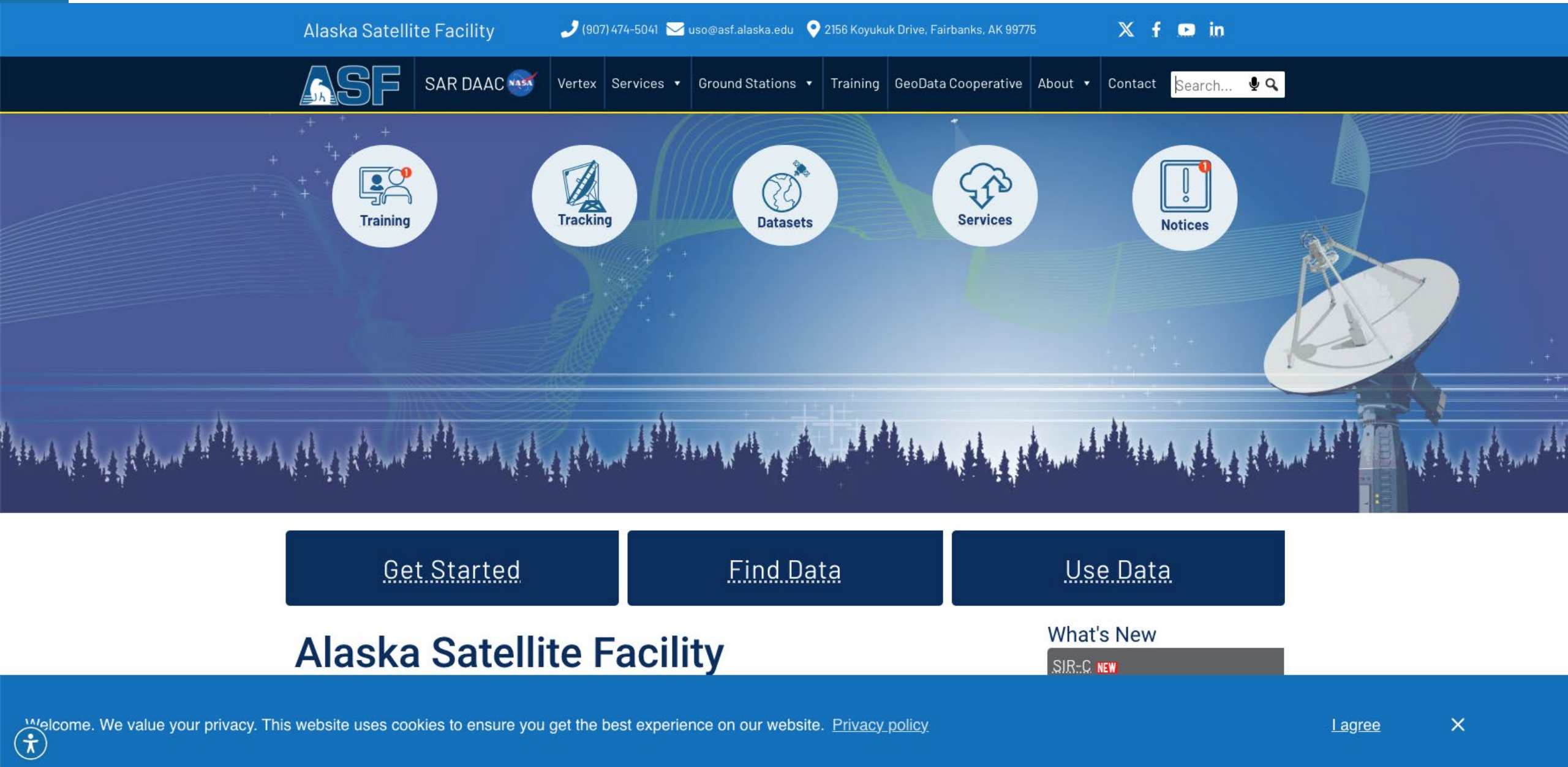
IMPACT
Interagency Implementation and Advanced Concepts Team

Expanding open science

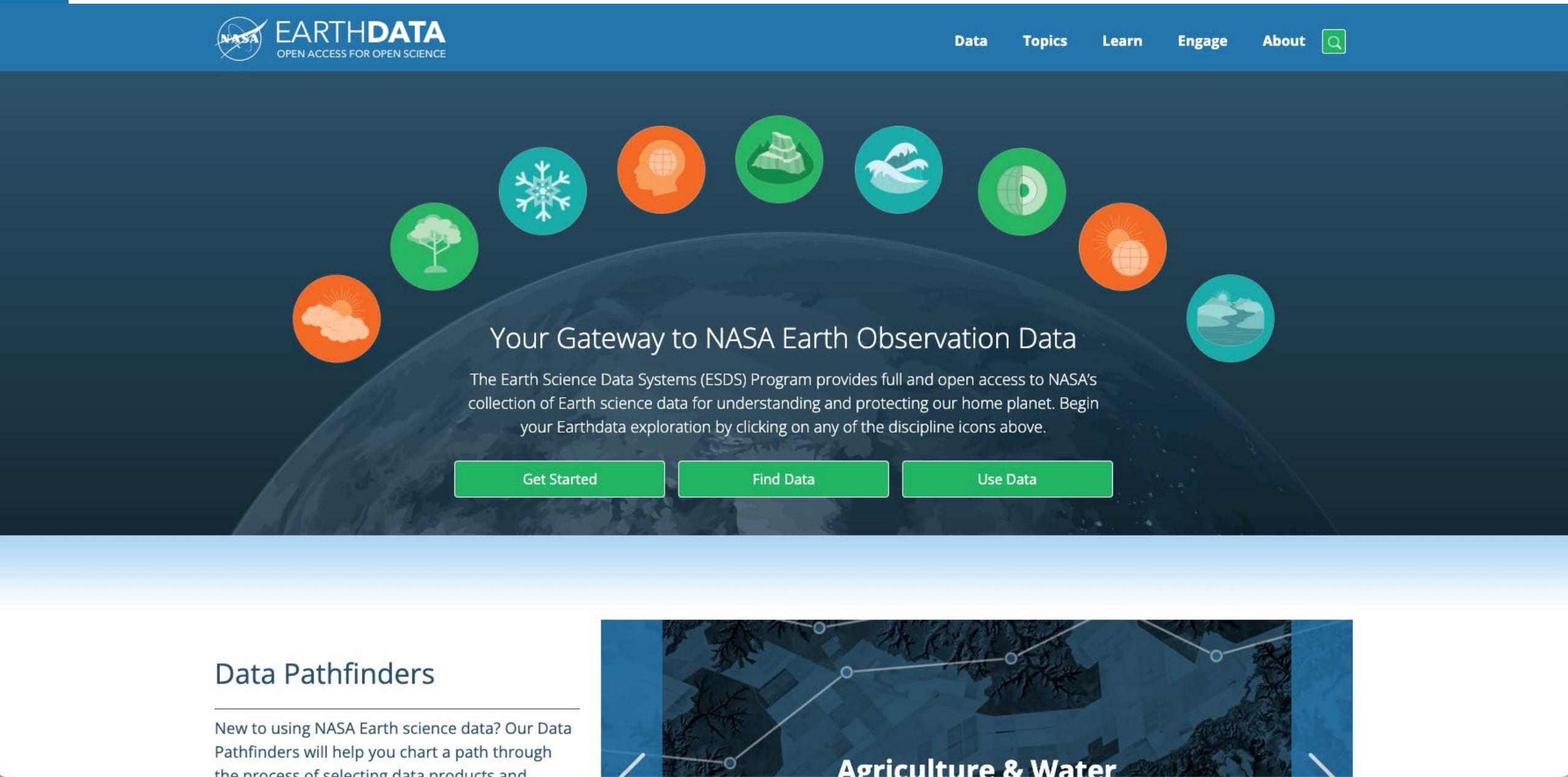
Earth observations are a key component which facilitates scientific progress. IMPACT prototypes the latest technologies to support new science and applications from Earth observation data.



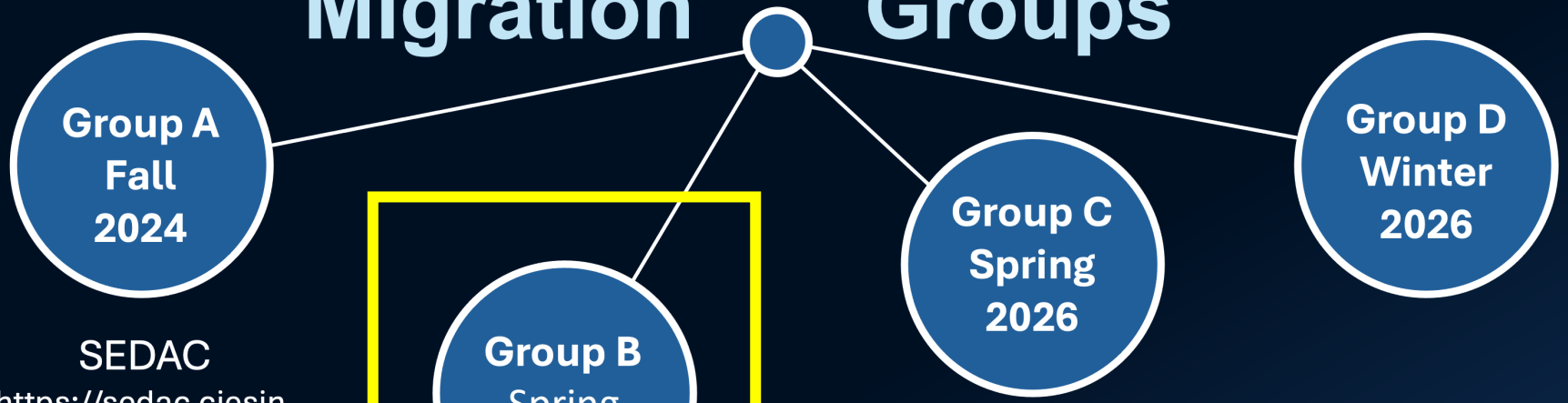
Alaska Satellite Facility (ASF DAAC)
Focused on Synthetic Aperture Radar



The current Earthdata website



Migration Groups



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LANCE
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GES DISC
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ASDC
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SIPS
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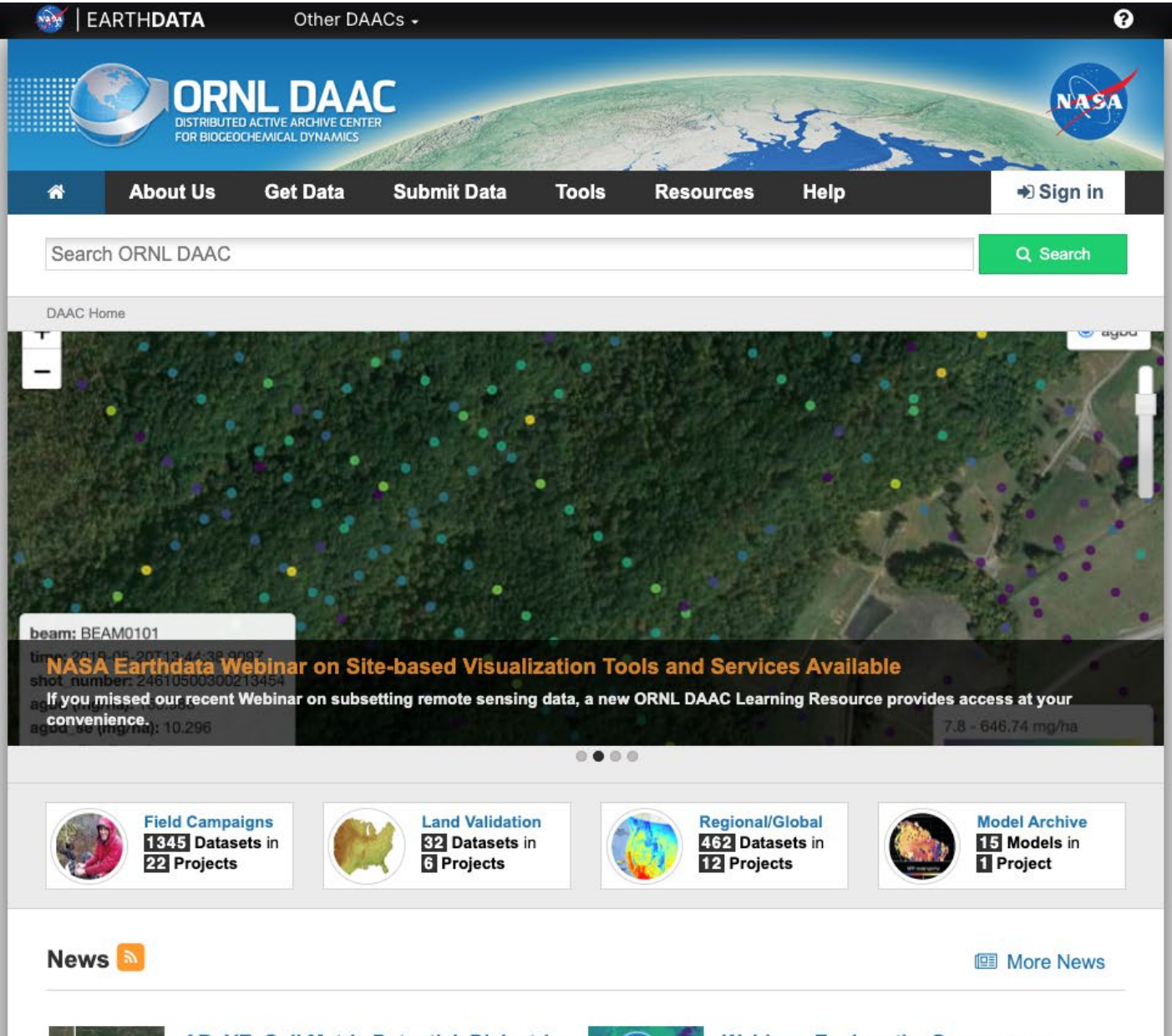
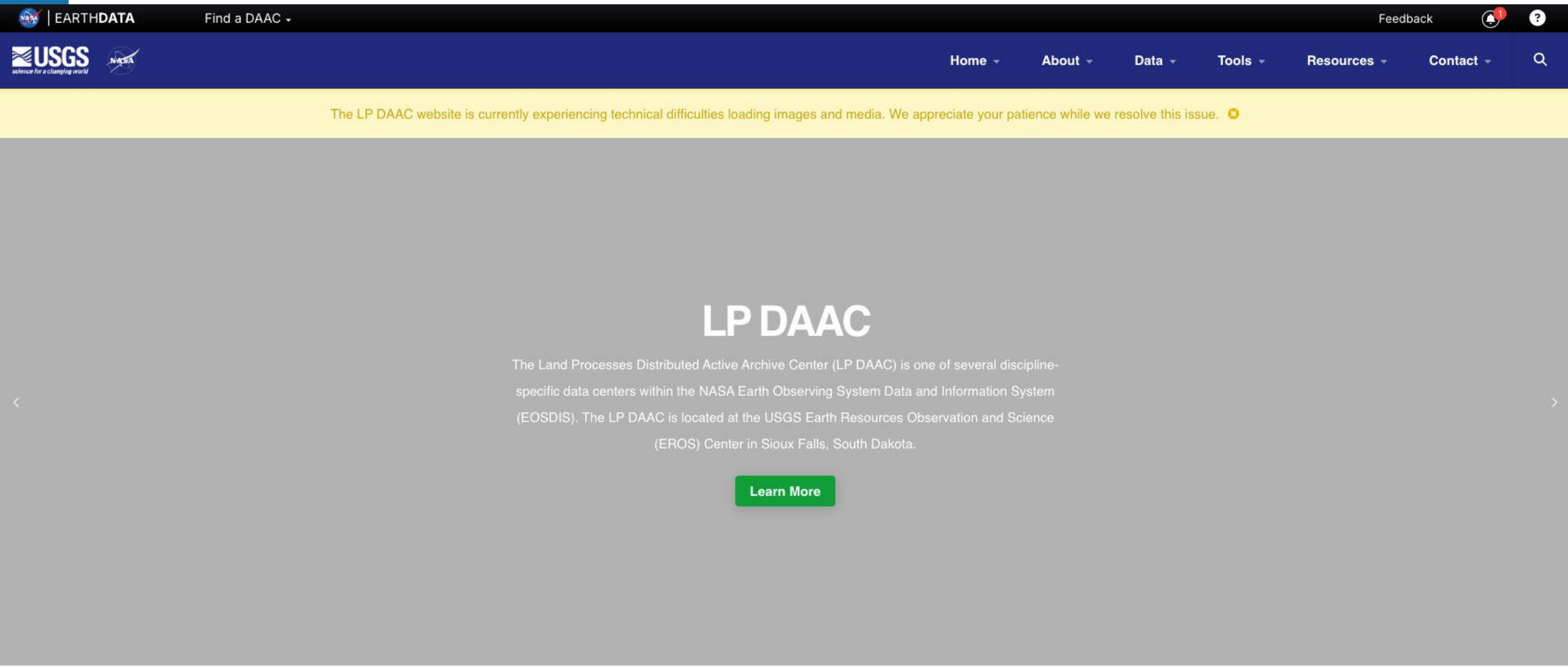
CASEI
https://impact.earthdata.nasa.gov/casei/

Crustal Dynamics Data Information System (CDDIS DAAC)
Focused on Space Geodesy and Solid Earth

Oak Ridge National Laboratory Distributed Active Archive Center (ORNL DAAC) Focused on Biogeochemical Dynamics, Ecological Data, and Environmental Processes



Land Processes Distributed Active Archive Center (LP DAAC)
Focused on Land Cover, Surface Reflectance, Radiance Temperature, Topography, Vegetation Indices



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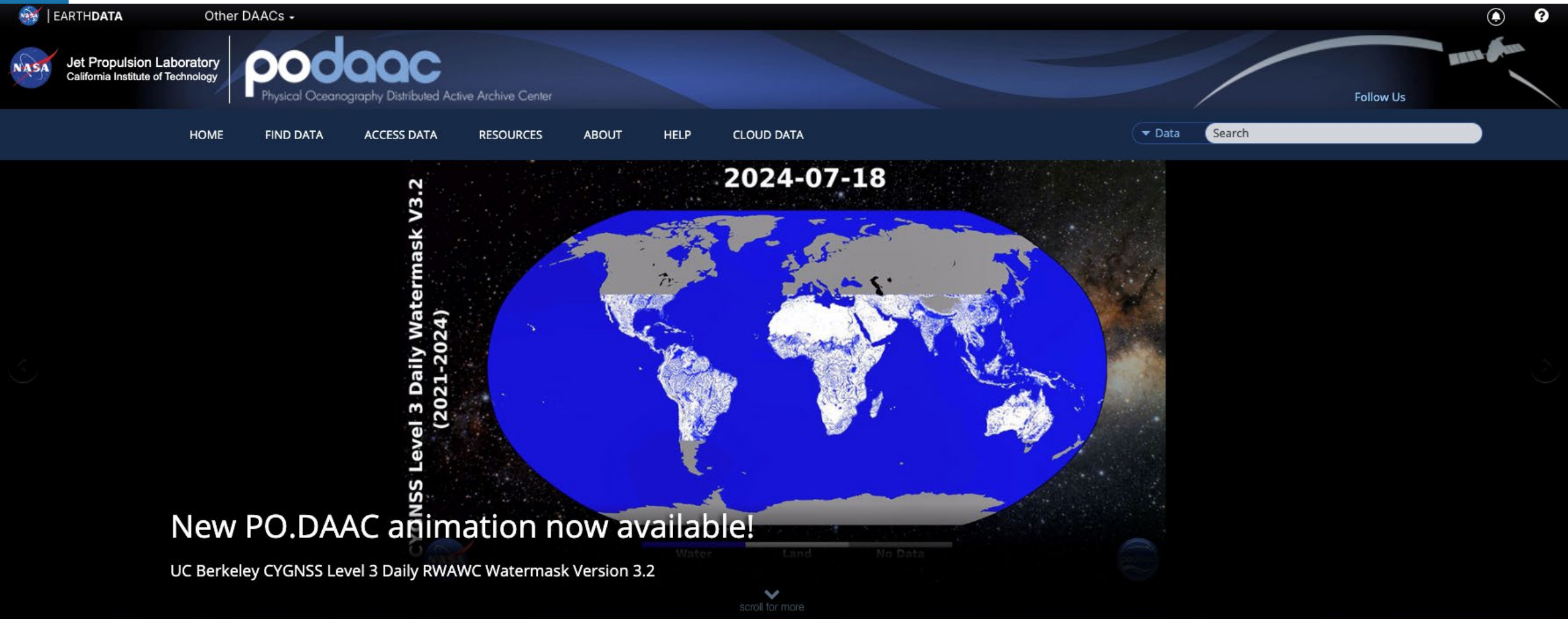
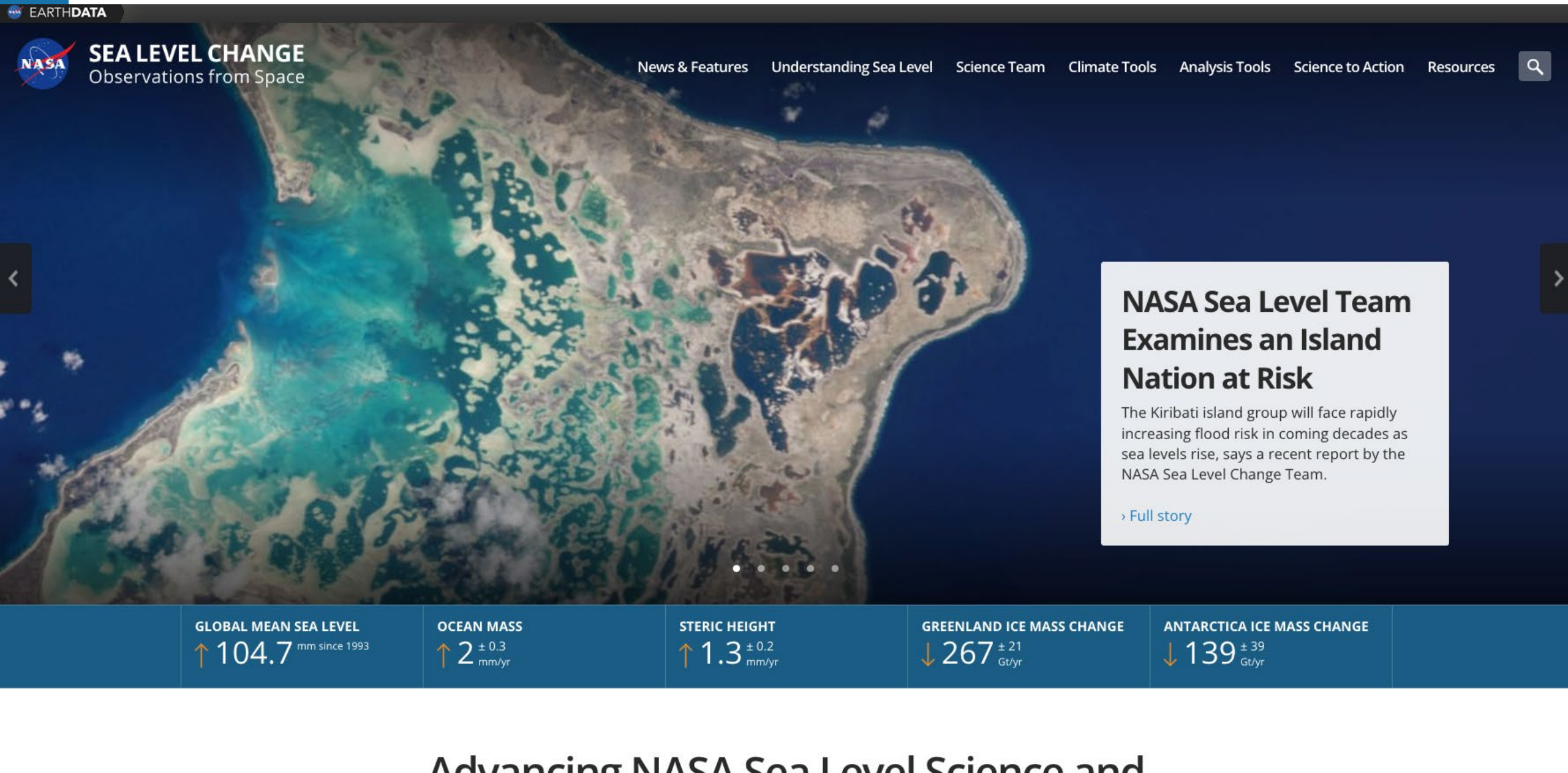
Physical Oceanography Distributed Active Archive Center (PO.DAAC)
Focused on Gravity, Ocean Winds, Sea Surface Temperature, Ocean Surface Topography, Sea Surface Salinity, Circulation

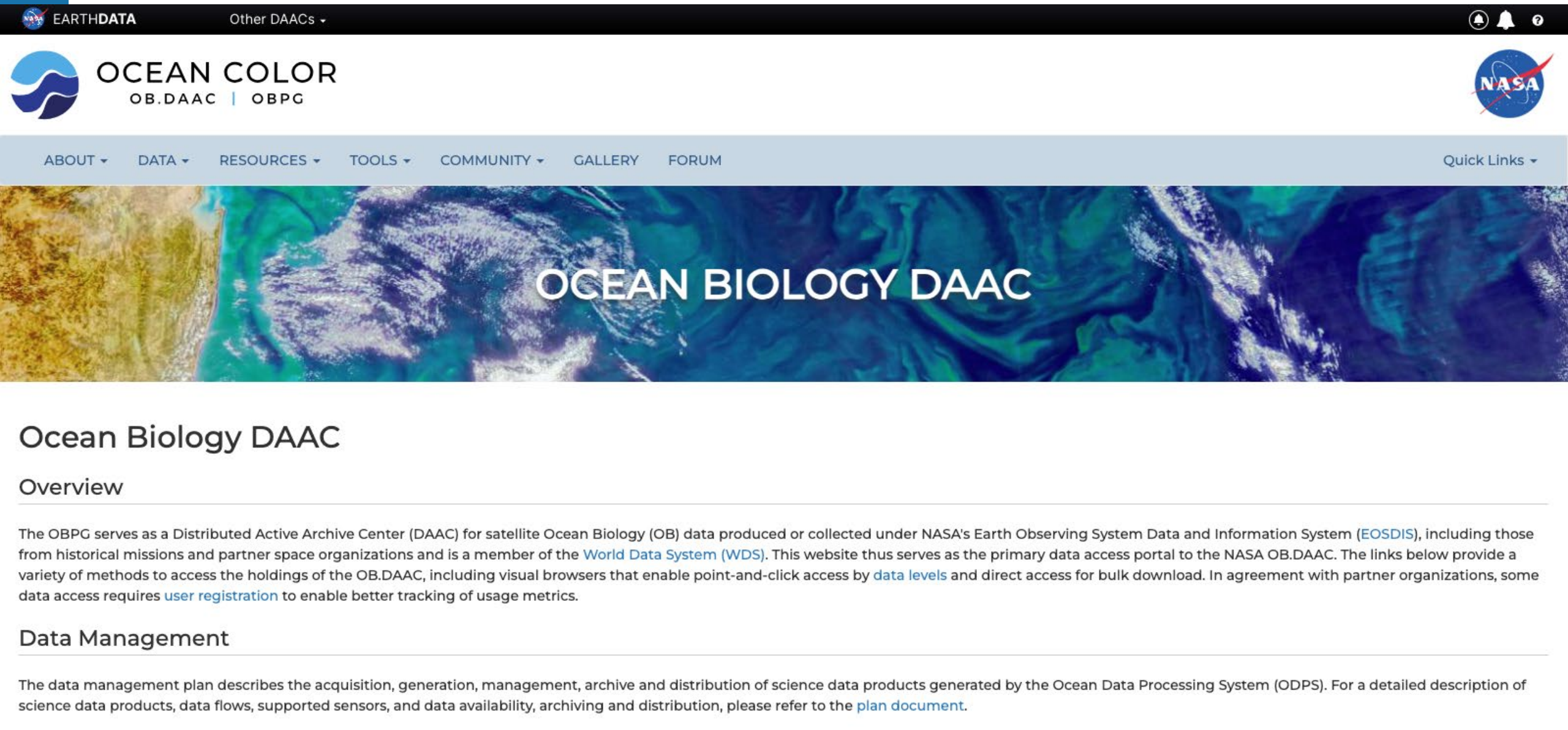


Sea Level Change Portal



Advancing NASA Sea Level Science and

Ocean Biology Distributed Active Archive Center (OB.DAAC)
Focuses on Ocean color, sea surface temperature, sea surface salinity



Sea Data Analysis Software (SeaDAS)

EARTHDATA Other DAACs

OCEAN COLOR
OB.DAAC | OBPG

NASA

ABOUT DOCS PROCESSING DOWNLOADS SUPPORT

SEADAS

New Release! SeaDAS 9.0.1 has been released. Download it today!

SeaDAS 9.0.0 was a major release with updates to support the PACE mission. Watch the introduction video to learn about new features.

The Official NASA/OB.DAAC Data Analysis Software

Last update: SeaDAS 9.0.1 (May 14, 2024)

Features

- Visualization
- Science Processing
- Statistics

Migration Groups

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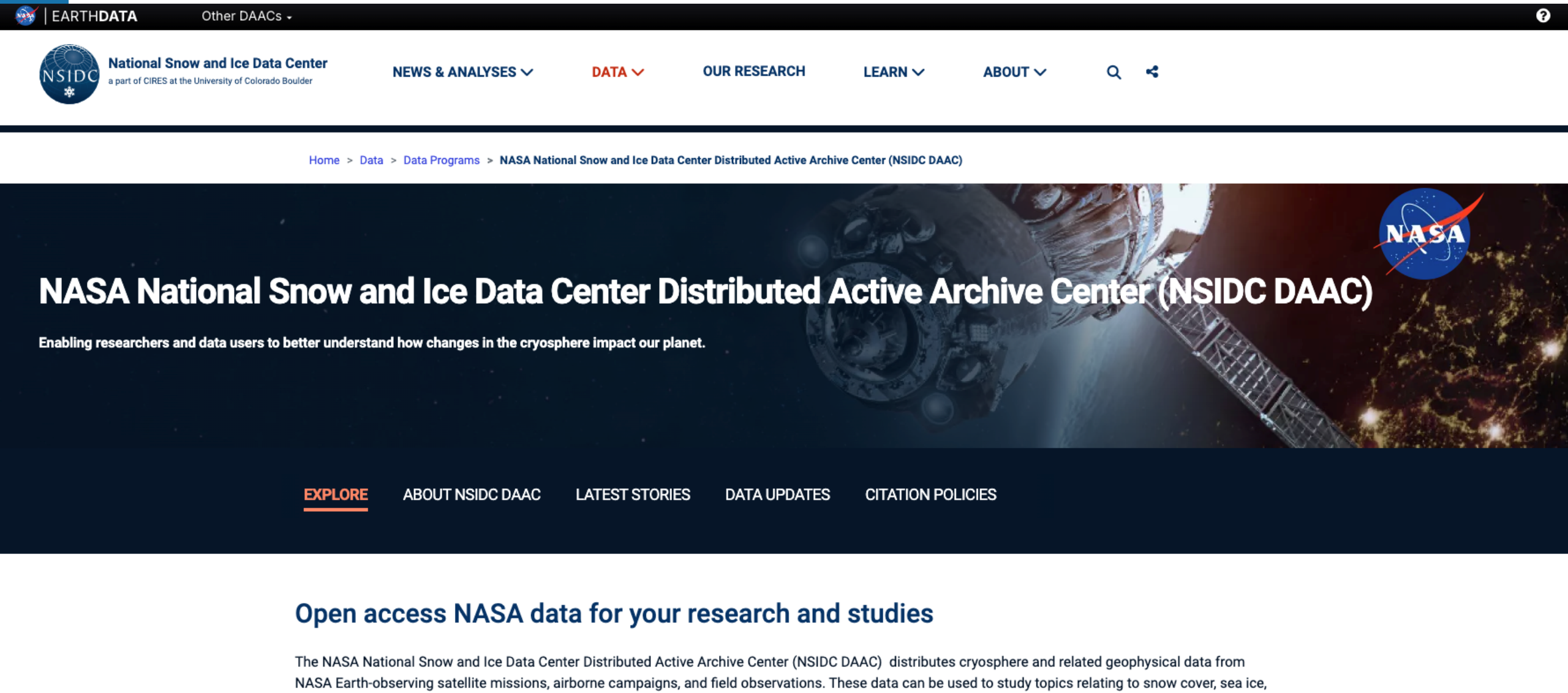
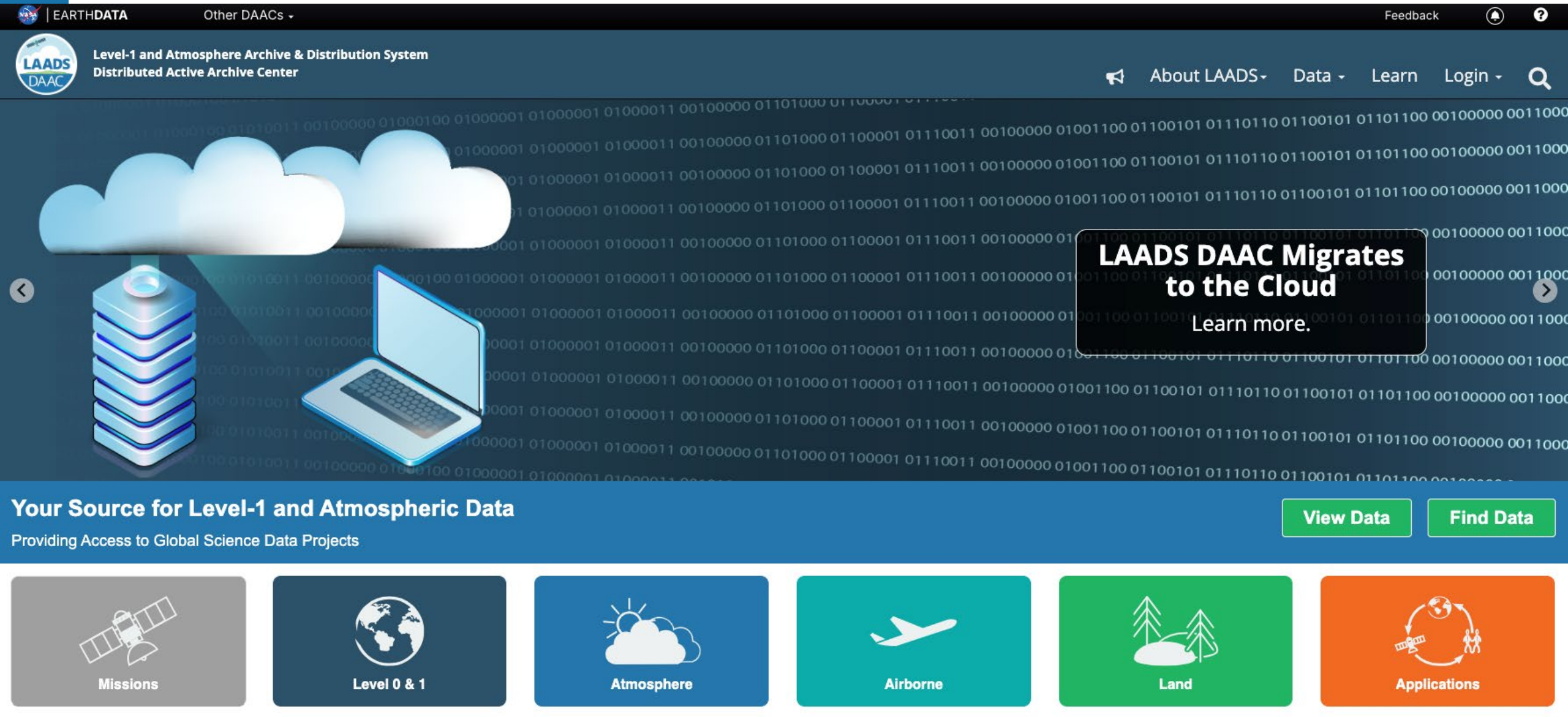
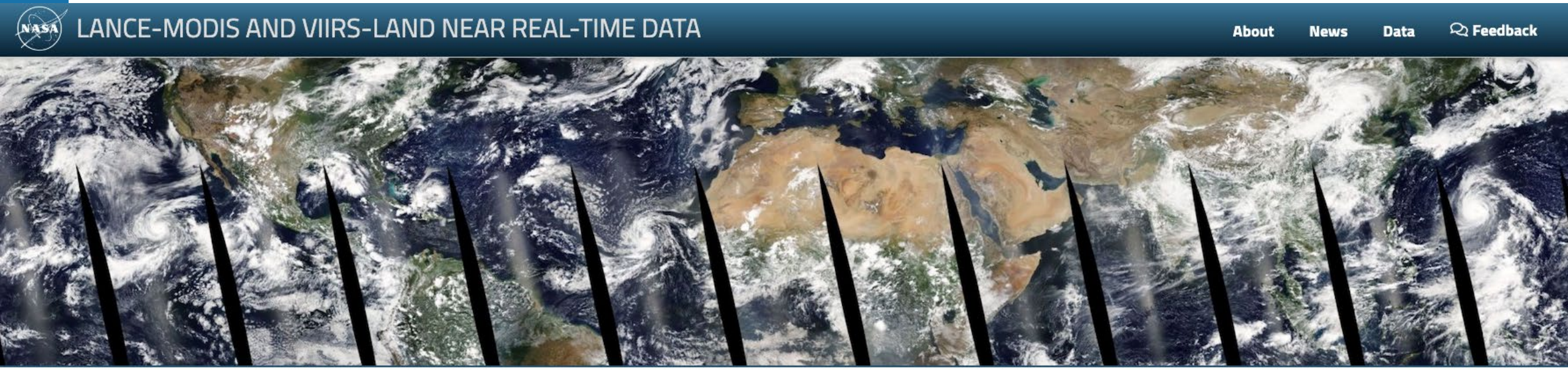
National Snow and Ice Data Center (NSIDC) DAAC
Focuses on Snow, sea ice, glaciers, ice sheets, ice shelves, frozen ground, soil moisture, cryosphere, climate interactions



Level 1 and Atmosphere Archive and Distribution System (LAADS) DAAC Focuses on MODIS Level 1 and atmosphere products



Land, Atmosphere Near real-time Capability for Earth observations (LANCE)
Focuses on delivering near real-time data



LANCE-MODIS AND VIIRS-LAND NEAR REAL-TIME DATA

MODIS

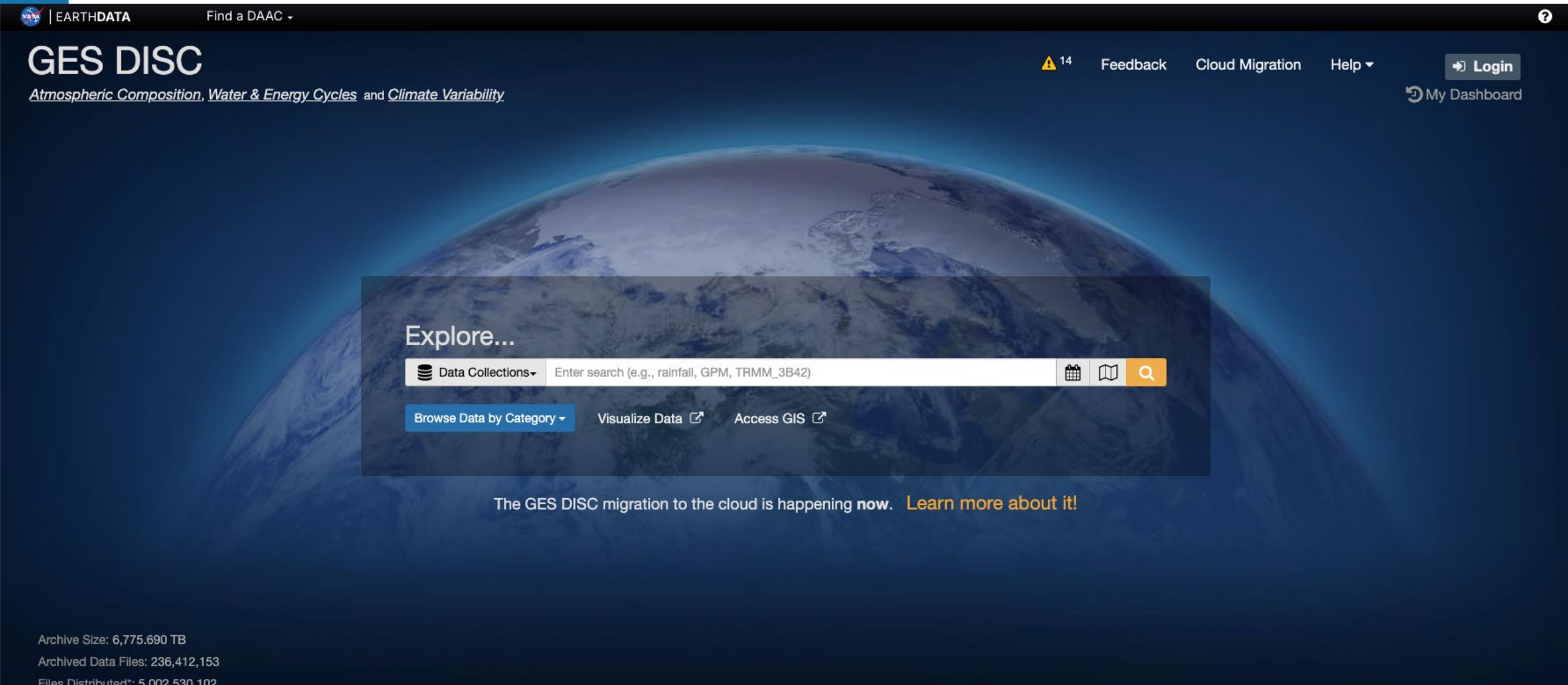
VIIRS

Imagery

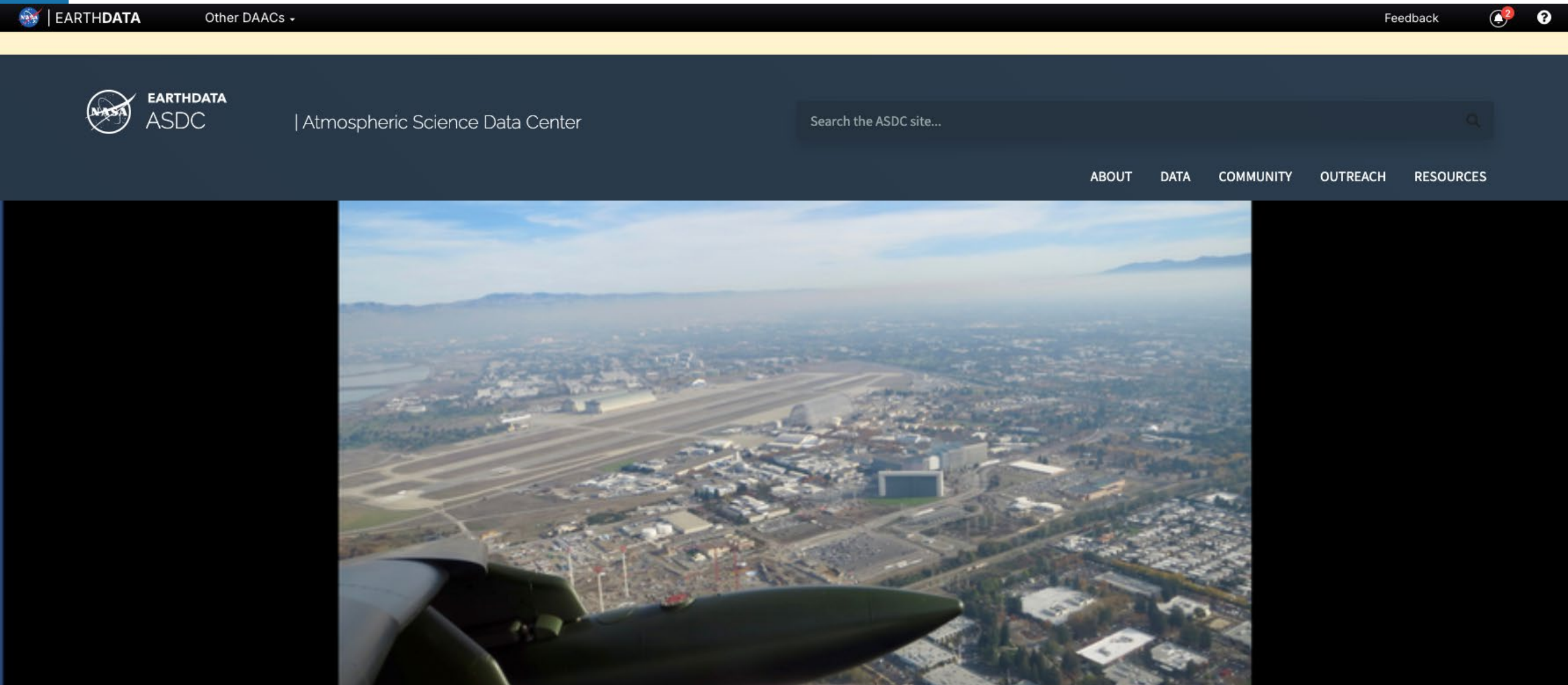
NASA's Land, Atmosphere Near-real-time Capability for EOS (LANCE) leverages existing satellite data processing systems in order to provide data and imagery available from select instruments (currently AIRS, AMSR2, ISS LIS, MISR, MLS, MODIS, MOPITT, OMI, OMPS, and VIIRS). Most data products are available within 3 hours of satellite observation. These data meet the timely needs of applications such as numerical weather and climate prediction, forecasting and monitoring natural hazards, agriculture, air quality and disaster relief.

Both the LANCE-MODIS and LANCE VIIRS-Land elements are provided by the MODIS Adaptive Processing System (MODAPS) operated by the GSFC

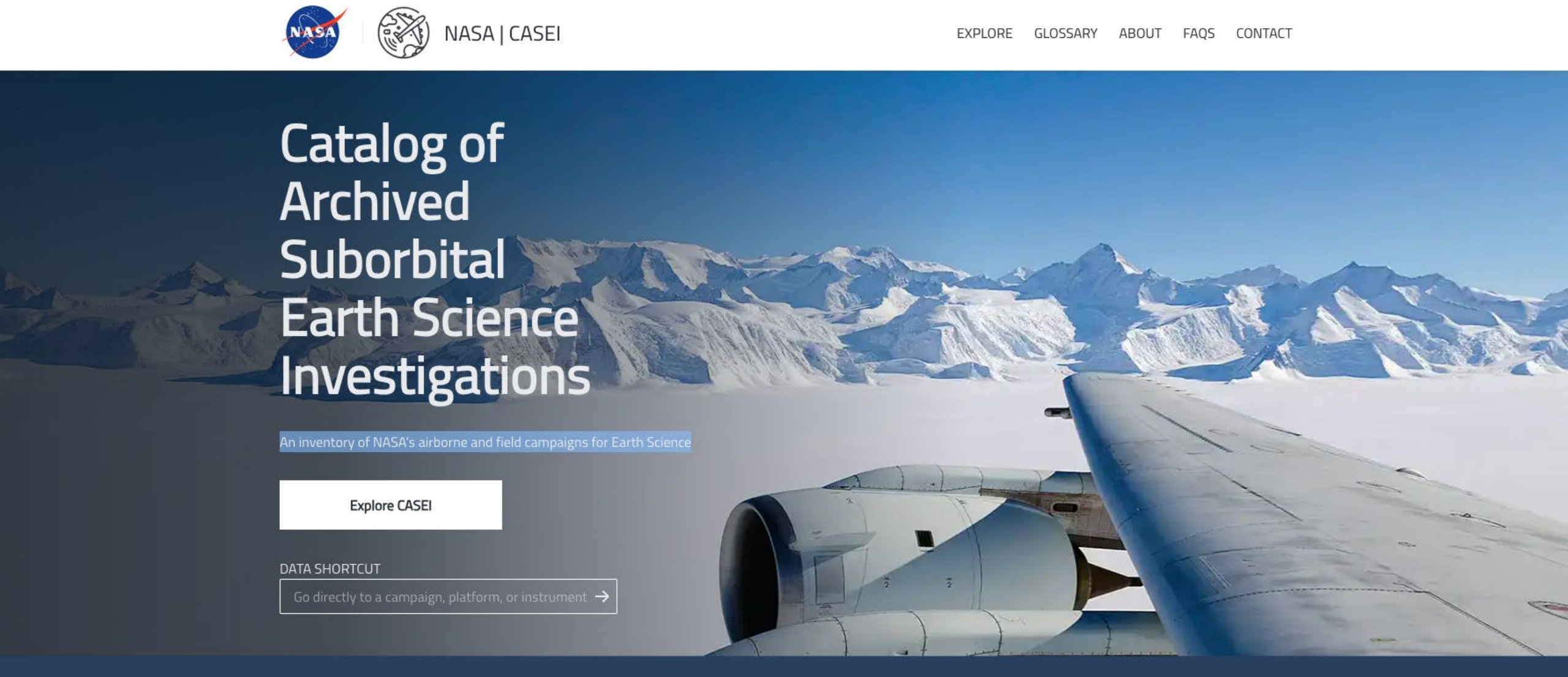
Goddard Earth Sciences Data and Information Services Center (GES DISC) Focuses on atmospheric composition, atmospheric dynamics, global precipitation, solar irradiance



Atmospheric Science Data Center (ASDC)
Focuses on radiation budget, clouds, aerosols, and tropospheric composition



Catalog of Archived Suborbital Earth Science Investigations (CASEI) Focuses on inventory of NASA's airborne and field campaigns for Earth Science

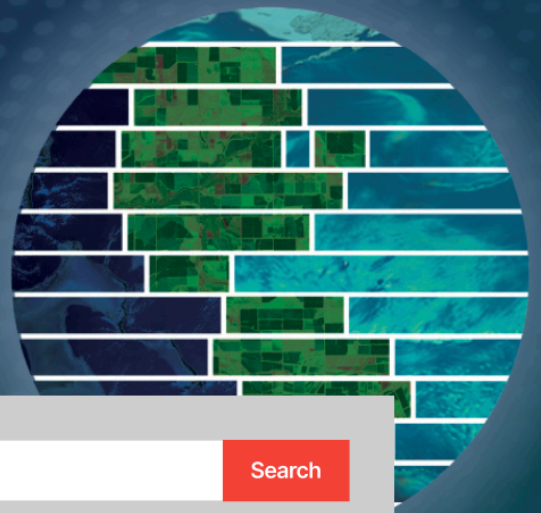


EARTHDATA

Data Topics Learn Centers Engage About News & Events

Your Gateway to NASA Earth Observation Data

The Earth Science Data Systems (ESDS) Program provides full and open access to NASA's collection of Earth science data for understanding and protecting our home planet.



Search for keywords, datasets, topics, and more... Search

Data Catalog

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna.

Data Tools

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna.

Data Alerts and Outages

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna.

Browse Data by Topic

Connect to data through specific topics curated to support a wide range of scientific investigations.

- Atmosphere
- Biosphere
- Climate Indicators
- Cryosphere
- Human Dimensions
- Land Surface
- Ocean
- Solid Earth
- Sun-Earth Interactions
- Terrestrial Hydrosphere

Trending Subtopics

- Air Mass Density
- Wildfire
- Hurricane
- Ocean Waves
- Sea Surface Temperature

Resources

- Web Unification Project page: https://www.earthdata.nasa.gov/esds/web-unification-project
- Web Unification Project Frequently Asked Questions: https://forum.earthdata.nasa.gov/viewtopic.php?t=5329
- IDEA Act: https://www.congress.gov/bill/115th-congress/house-bill/5759

EARTHDATA

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Thank You for Watching