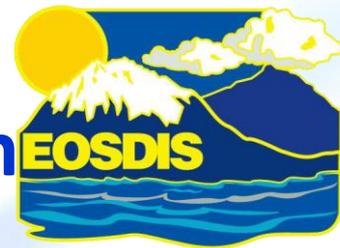


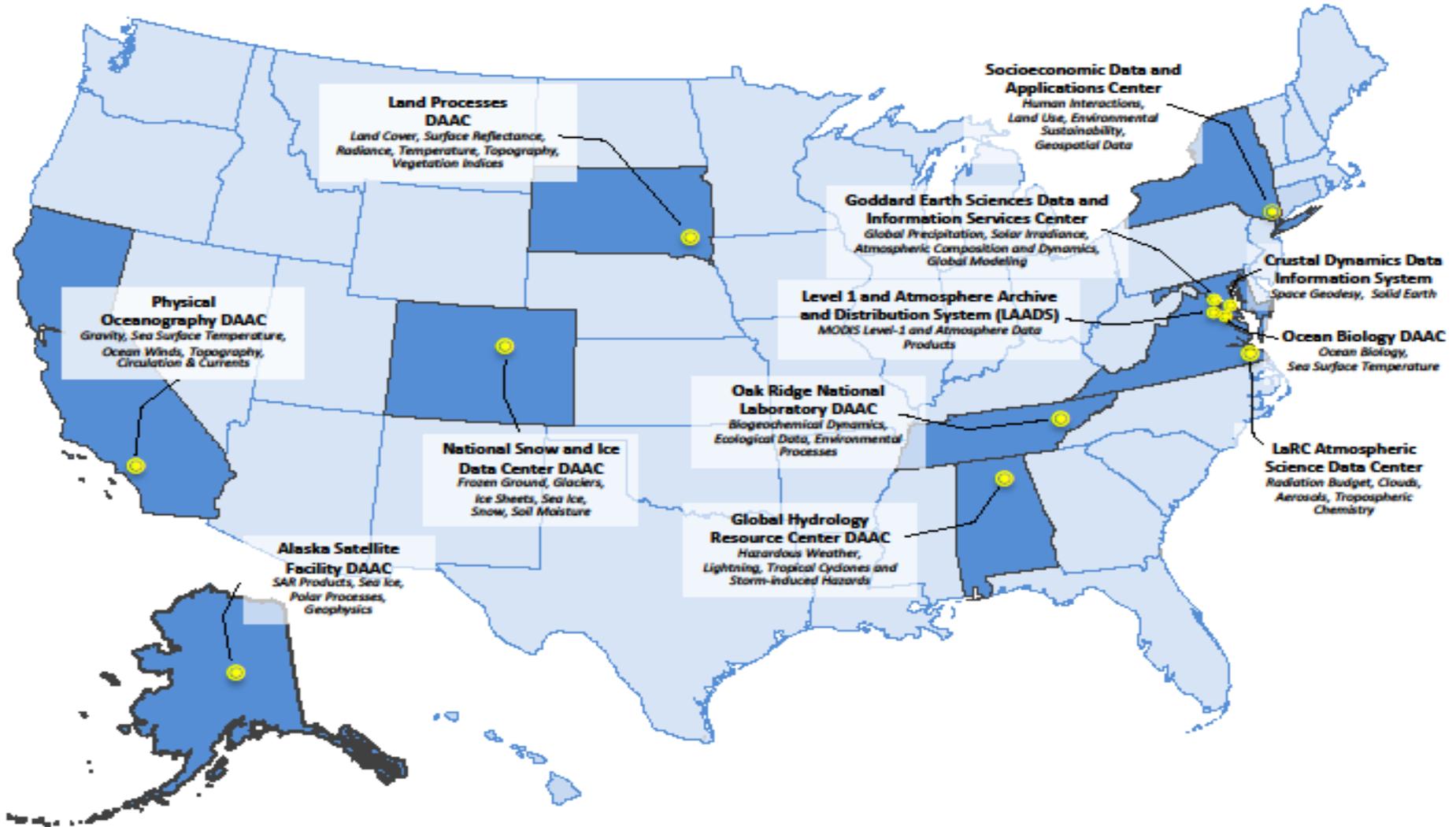
Strengthening linkages between the NASA Land Cover Land Use Change Program and the Land Processes DAAC



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Key Metrics

250+ Unique Products
200+ Million Files
3.5+ Petabytes

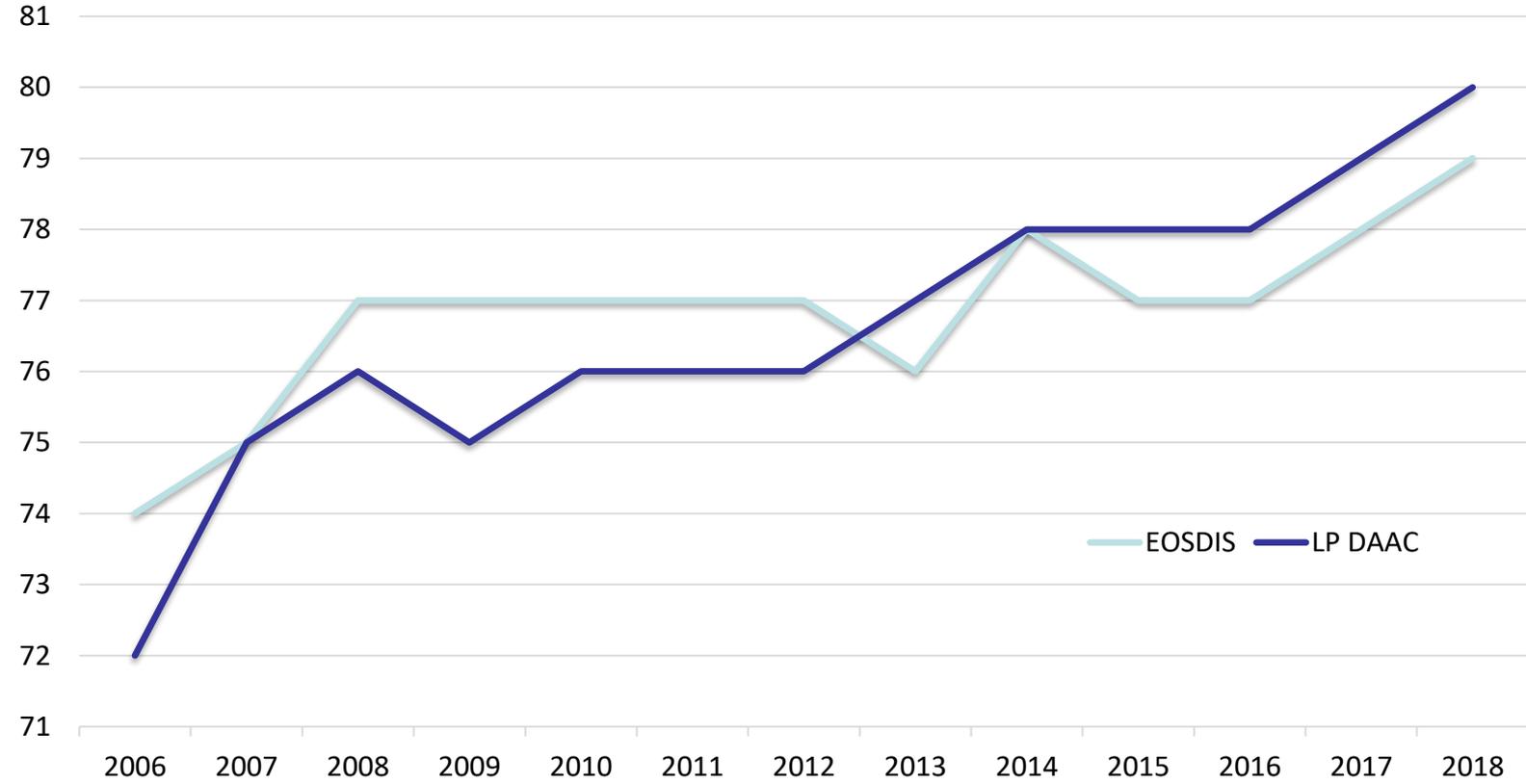
Current LP DAAC Archive

2+ Billion Files
25+ Petabytes
LP DAAC Distribution
(2000 - 2018)

100,000+

Unique Registered Users per year

American Customer Satisfaction Index



Community-Offered Data Products Background



- The LP DAAC is **directed** to support certain data products, (e.g., land-relevant NASA satellite missions, MEaSUREs datasets) by NASA HQ
- **However, the land community at large may offer products to the LP DAAC**
 - By supporting offered products of value to the land science community, LP DAAC increases the impact of our overall mission
 - Benefits to the offeror include: 1) increased visibility, credibility, accessibility, 2) professional data management, curation and outreach
 - Costs to the offeror are driven by the time required to communicate, document, and provide products to the LP DAAC
 - Costs to LP DAAC are driven mostly by the size and complexity of the dataset

Community-Offered Data Products Background



- How are potential community products identified?
 - LP DAAC is approached by an offeror (e.g., ASTER GED (Hulley, JPL), G-LiHT (Cook, GSFC))
 - The UWG recommends investigation (e.g., HysPIRI-simulated CA Campaign (Green, JPL), Harmonized Landsat-Sentinel (Masek, GSFC)).

- What factors affect the LP DAAC timeline for migrating approved products?
 - a. archive capacity & planning
 - b. product priority* & staff capacity
 - c. dataset complexity & maturity
 - d. offeror capacity

* satellite missions are always a higher priority for LP DAAC than other products

* dependency on LP DAAC data support prior to manuscript acceptance may up priority

Community-Offered Data Products Process



- Our community product process conforms to NASA Earth Science Data and Information System Project (ESDIS) approval guidelines and is informed by practices developed amongst Distributed Active Archive Center(s)
- What is the general decision process?
 - Offeror makes initial request (“LP DAAC product submission form” – a short web form)
 - LP DAAC works with the offeror to more fully characterize the product (aka “Archival Inquiry Packet” – a slide deck)
 - LP DAAC synthesizes the information into an LP product assessment (aka “Proposal to Archive and Distribute” – a document)
 - Depending on nature of the request, the UWG may be called upon to assess fitness and science value and to make a recommendation to LP DAAC and NASA management about migration to LP DAAC.
 - Depending on the scope of the offer, the request may progress from LP DAAC to ESDIS to NASA HQ levels of management for further review and accept/reject decisions.

What do we Offer?



- Curate – take charge of, or organize
- Provenance – place or source of origin

- High level of service on land data
 - Archive, including redundancy
 - High speed access (disk storage)
 - Catalog of the record
 - Coincident search and order (working on reducing complexity)
 - Delivery of pixels, not just files of data
 - Transformation services
 - Communication with the land research and application communities
 - Working with the overall NASA ESDIS communications group
 - Data in Action stories and many other forms of outreach
 - Tiered user services



Enter a name to identify your sample

Upload a file or draw a polygon using the or icon

Drop a vector polygon file containing the area feature(s) to extract or [click here](#) to select the file.

Supported file formats:

- ESRI Shapefile (*.zip including .shp, .dbf, .prj, and .shx files*)
- GeoJSON (*.json or .geojson*)

Start Date

End Date

Is Date Recurring?

Select the layers to include in the sample

Selected file



To clear a polygon, draw a new polygon or upload a vector polygon file.

Selected layers

Avg. Monthly Files Accessed by AppEEARS	Avg. Monthly Files Distributed to Users from AppEEARS	Percent Data Reduction in Files Distributed
9.5 Million	500,000	95%
Avg. Monthly Volume Accessed by AppEEARS	Avg. Monthly Volume Distributed to Users from AppEEARS	Percent Data Reduction in Volume Distributed
*140 TB	*5 TB	96%

- For the same period, total distribution from LP DAAC averaged about 30 million files and 450 TB per month
- So, AppEEARS is providing about 25% of LP DAAC user access to data, but (due to immense data reduction), only about 1% of overall distribution

* Data volumes are natively compressed out of the archive for MODIS/VIIRS products for this slide

A topographic map of North America, showing the continent's terrain with color-coded elevations. The word "Questions?" is overlaid in the center in a large, bold, black font. The map shows the Rocky Mountains in the west, the Great Plains in the center, and the Appalachian Mountains in the east. The Great Lakes and St. Lawrence River are visible in the northeast. The Gulf of Mexico and Caribbean Sea are visible in the south. The word "Questions?" is centered over the Great Plains region.

Questions?

LP DAAC New Mission Workflow

