PO.DAAC Tools & Services

An introduction to the tools and services offered by the Physical Oceanography Distributed Active Archive Center

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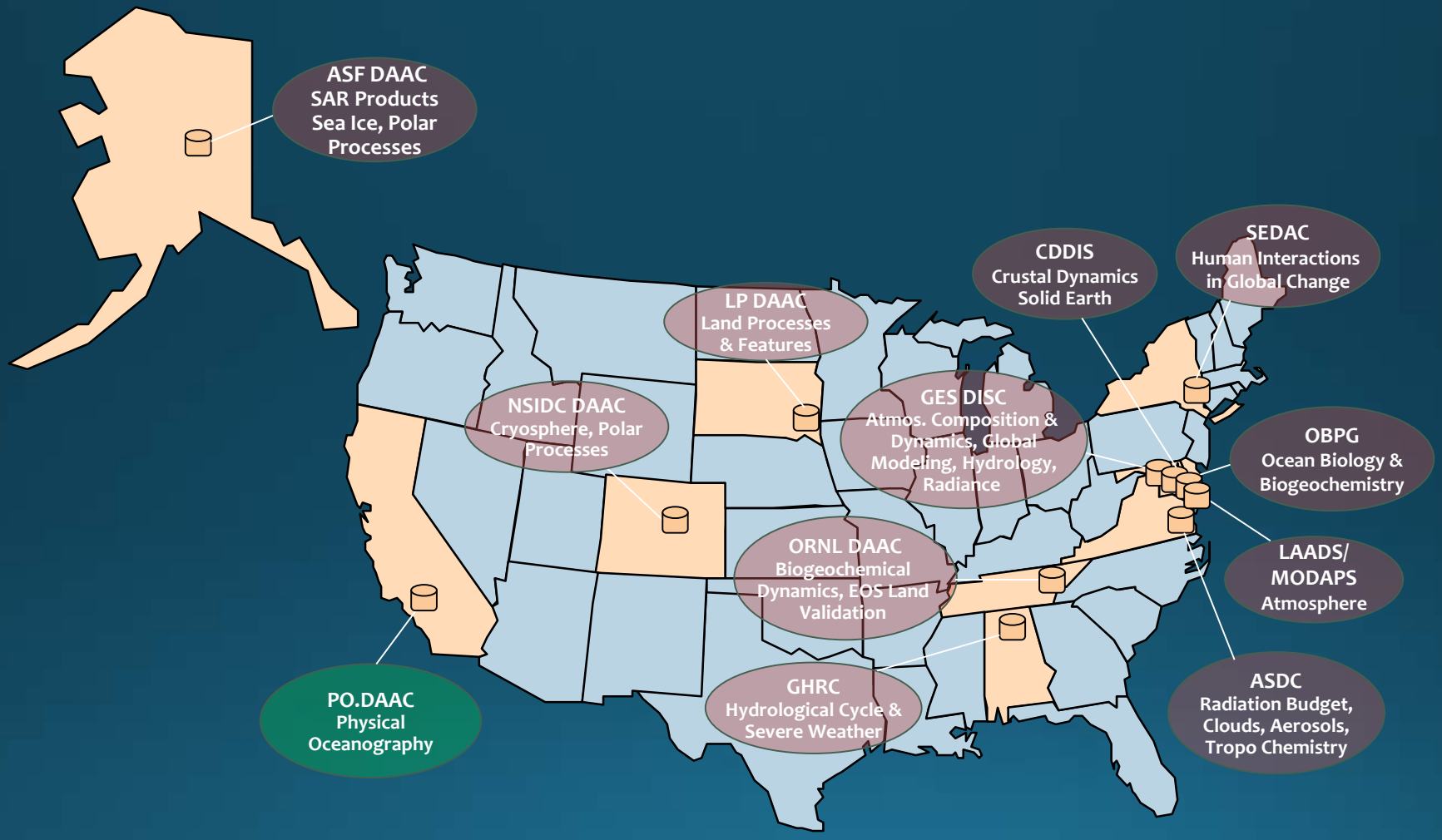
PO.DAAC Overview



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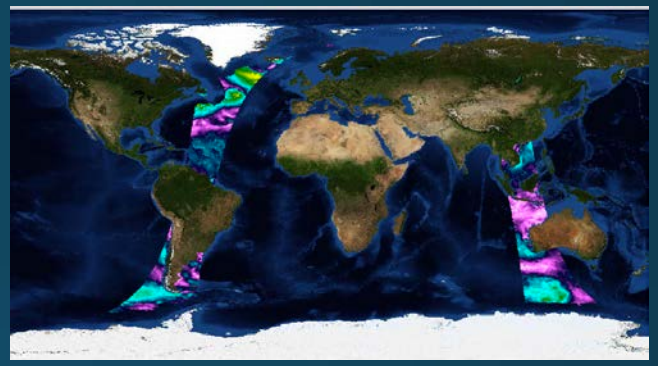
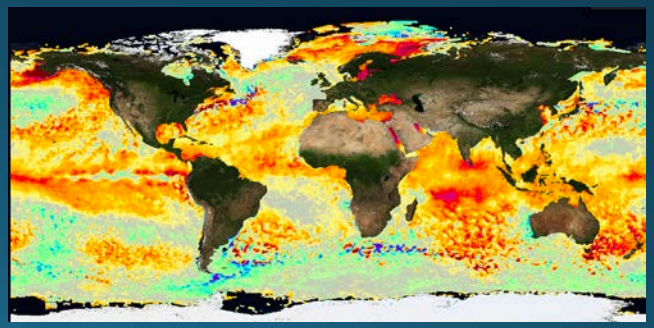
PO.DAAC Overview

- Physical Oceanography DAAC
  - Sea surface temperature, topography, and salinity
  - Wind speed
  - Gravity
- 500+ datasets
- 10+ million data files
- 160+ TB of archived data
- Distribution (Month of August, 2016)
  - 37TB
  - 5 million+ files





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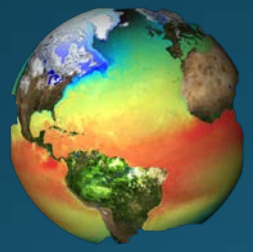
PO.DAAC Tools & Services

Discovery

Access



Exploration and Visualization

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Discovery

- Web Portal & Mission Pages
  - Faceted data search & links to mission resources
- Web Services
  - Dataset, File discovery
  - Restful
  - Parameter based
  - Search on many different metadata attributes

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Access

- FTP
- PO.DAAC Drive* – WebDAV enabled access over HTTP
  - Mount Drive locally to interact with our entire archive
- OPeNDAP – index based file access (L1+)
- THREDDS– aggregate queries by value (L3+)
- W10N*– Restful metadata, data access

* Labs or UAT capability

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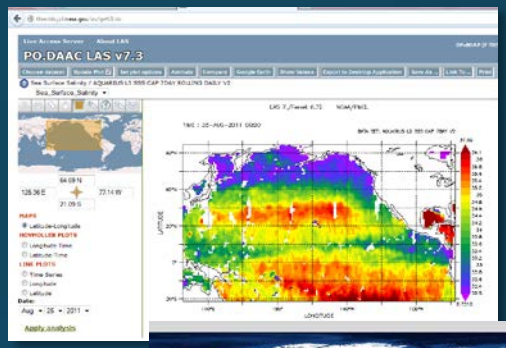
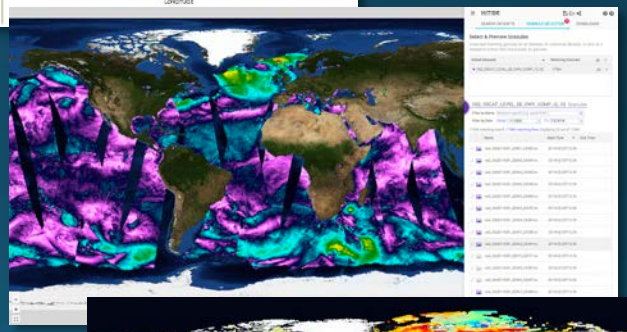
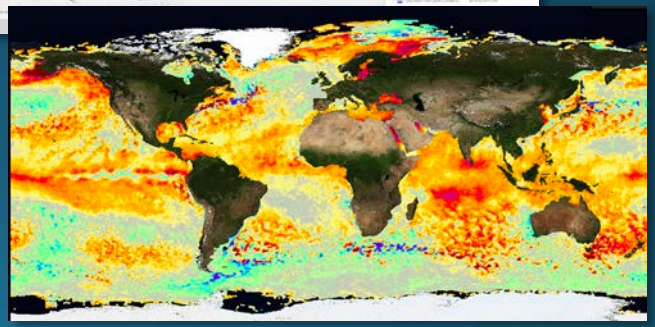
Visualization and Subsetting

- Live Access Server (LAS)
  - Visualization and Plotting
  - Subsetting
  - Level 3+ data
- HiTIDE & L2SS (Level 2 Subsetter)
  - Visualization
  - Subsetting
  - Level 2 data
- State of the Ocean (SOTO)
  - Level 3 visualizations
  - Simple animations







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PO.DAAC Drive

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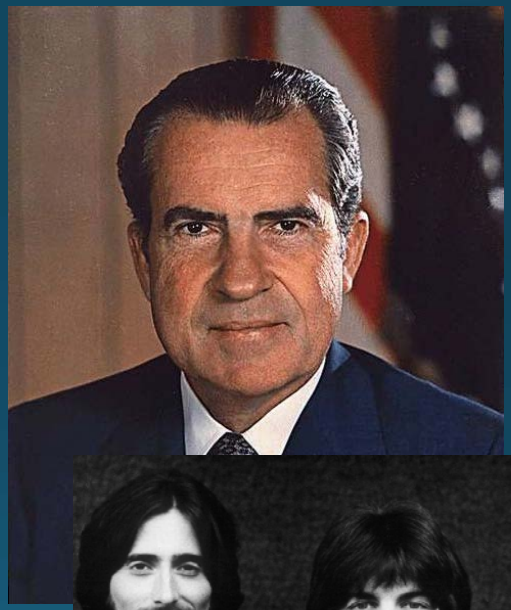
FTP @ PO.DAAC

- Overwhelmingly use of FTP at PO.DAAC
- An old but relevant technology…
- Not without issues



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PO.DAAC Drive key drivers

- Earthdata login Requirement
- Provide similar functionality to FTP
- Make adoption easy

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Drive as an FTP Replacement

- Replicates FTP functionality
  - Browser based directory exploration
  - Click to download and shareable links
  - Support for curl and wget
- Sponsor Requirements
  - Earthdata login Integration
- WebDAV
  - Mount the entire archive to your machine
  - Explore, read, analyze as if the files are local
  - Works with popular tools like Panoply and NetCDF command line tools

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Drive Demo

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Backup slides

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Tools and Services Overview

Functionality	Tool/Service	Notes
Data Discovery	PO.DAAC Portal	Mission information and Resources
	Consolidated Web Services (CWS)	Dataset, Granule search services
Data Access	FTP	Traditional FTP access
	Drive	WebDAV enabled http access
	OPeNDAP	Web based science access
	THREDDS	Aggregations, remote data access
	W10N	Webification, ReST access to data/metadata
Exploration, Visualization and Subsetting	State of the Ocean	Level-3 visualization tool
	LAS	Level-3 Visualization and subsetting tool
	HiTIDE/L2SS	Level 2 exploration, subsetting
	CWS	Dataset, Granule search services

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