# Global Data Assembly Center (GDAC) Report to the GHRSST Science Team

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National Aeronautics and
Space Administration

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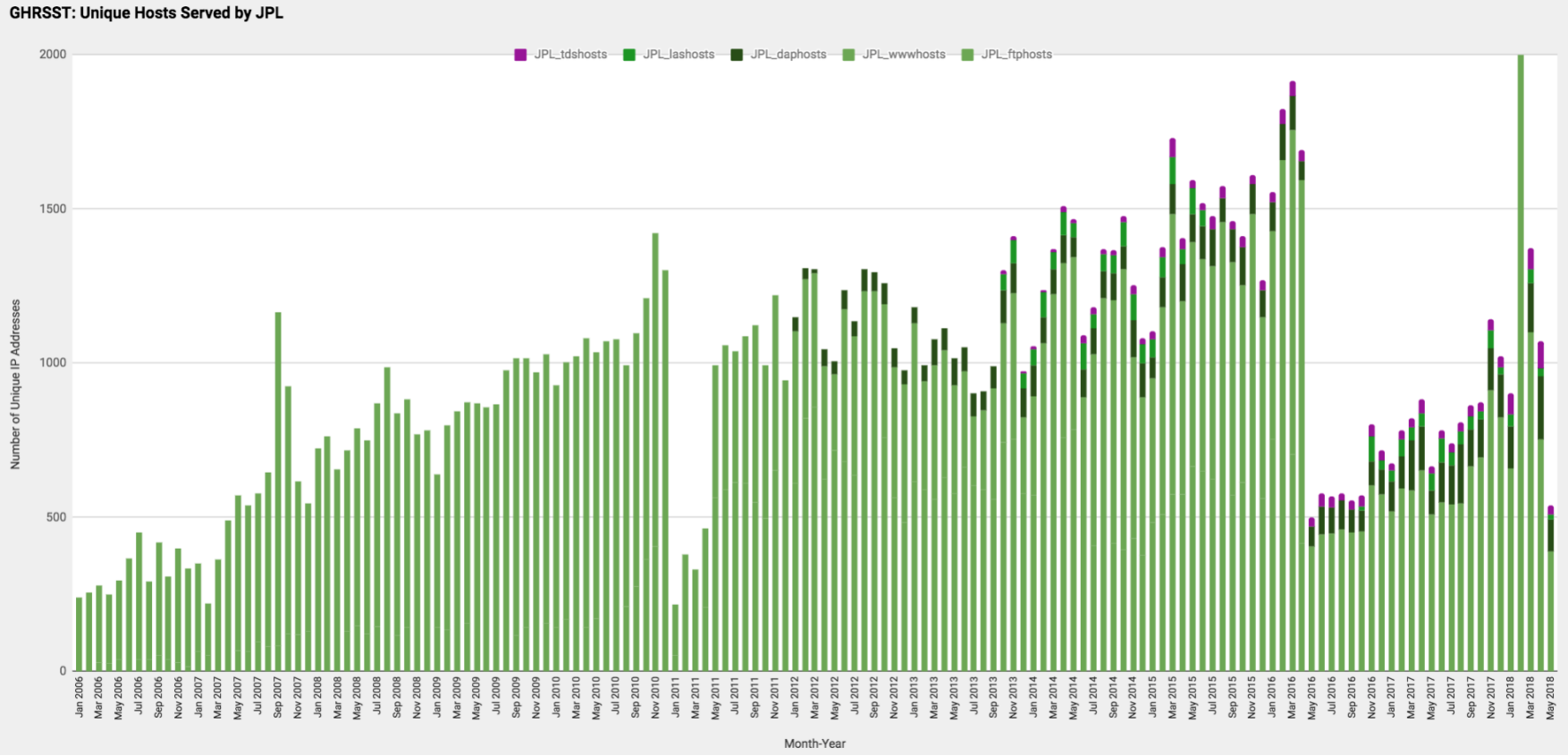
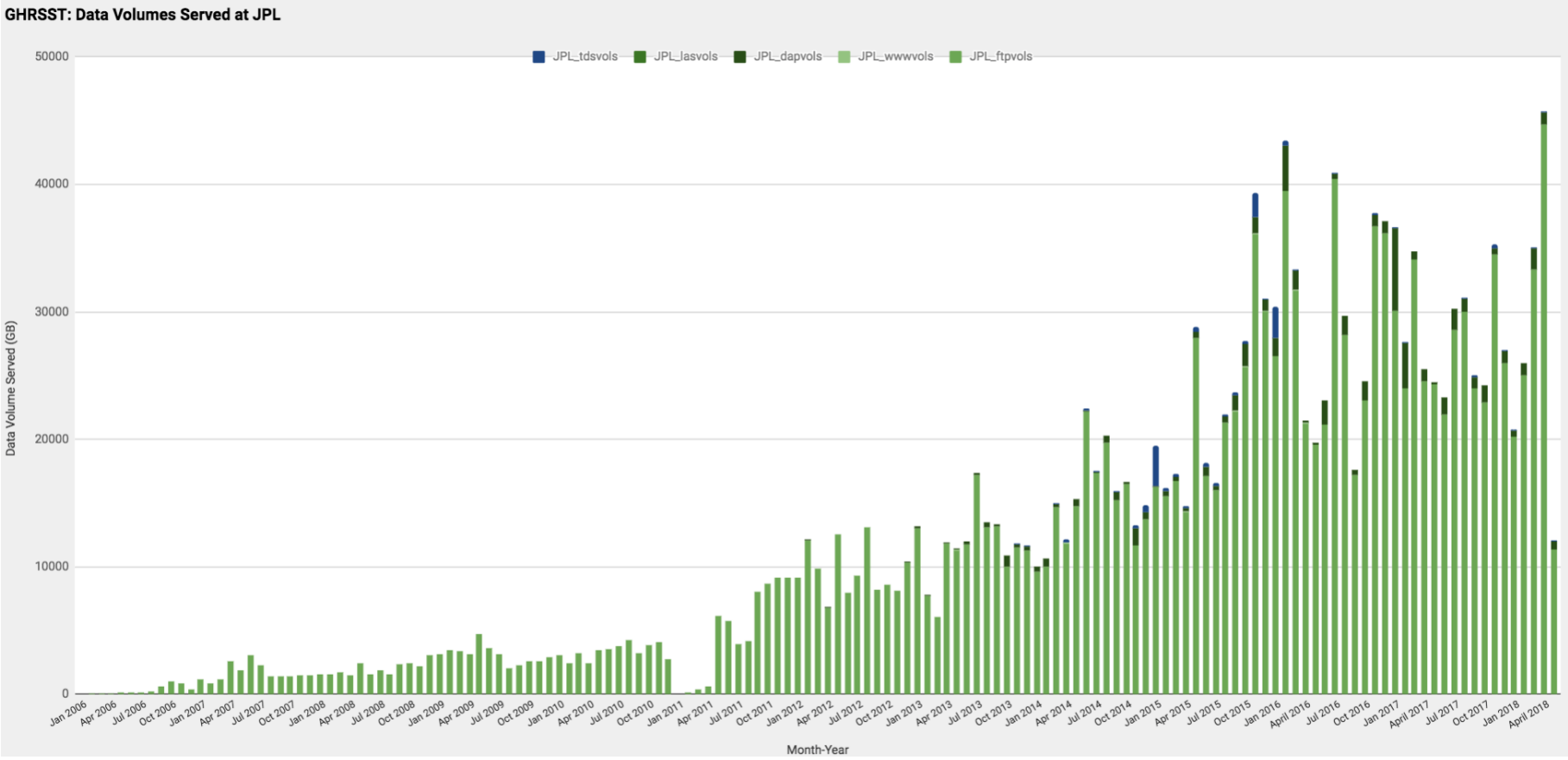
# 2018 Highlights

* Several new and improved datasets ingest in last 12 months
  * Retired 42 deprecated datasets
* Continued support operational datastreams for from 15 RDACs
* Maintain linkages to NASA CMR and LTSRF archive
  * See https://search.earthdata.nasa.gov/search
* Continued user uptake
  * Recent record month of 44 TBs distributed (March 2018) !
  * Several GHRSST datasets in PO.DAAC top 10
* User community engagement
  * Improved data recipes with data and tutorials
  * PO.DAAC drive evangelizing
* Supporting Regional Global Task Sharing (R/G TS) architecture formal proposal

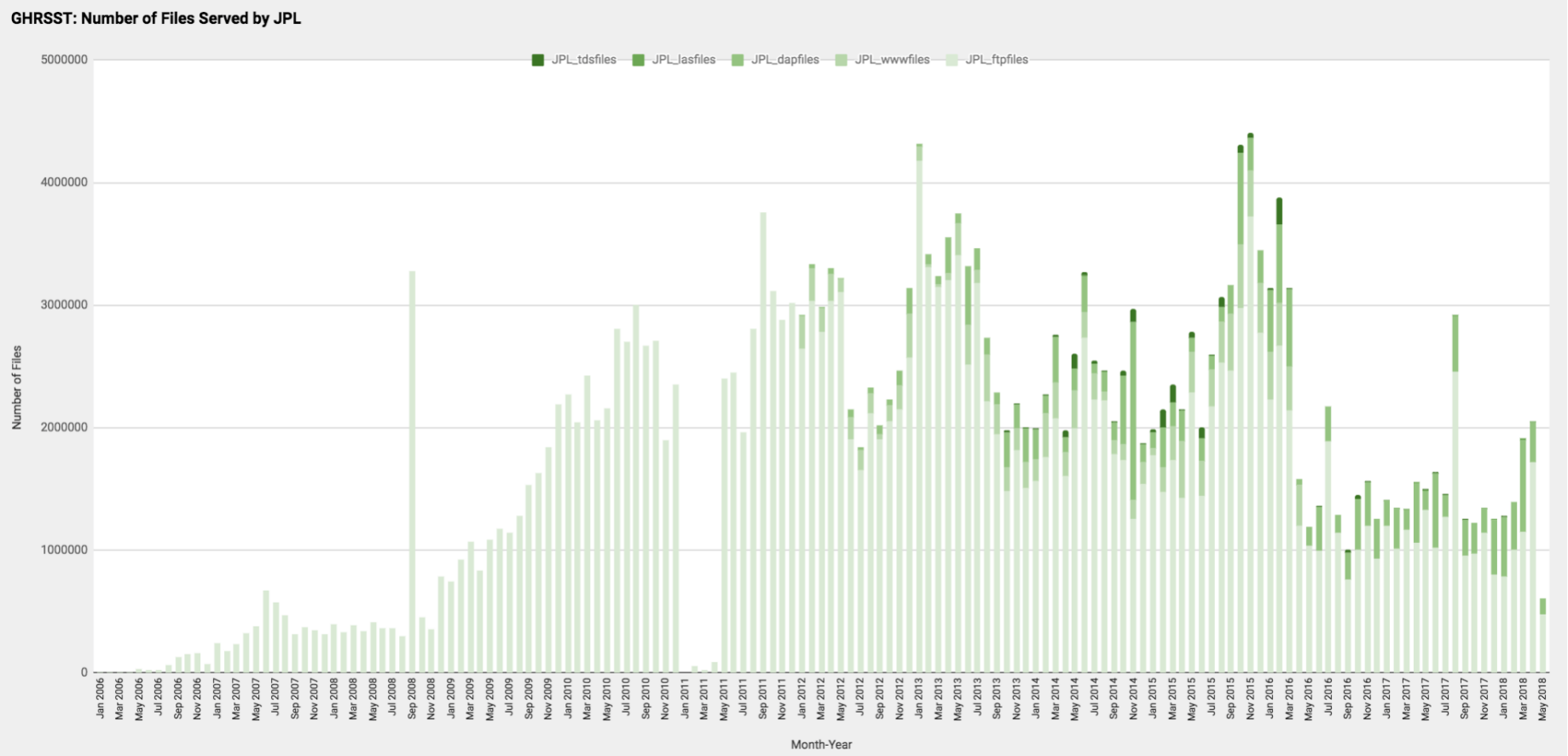
# PO.DAAC Distribution metrics: Monthly Unique Users



# Monthly Volumes



# Monthly Files



## Top 10 Datasets for FTP by files during 2018

| Rank | Name | Tool | Files | Volume (GB) | Users |
|---|---|---|---|---|---|
| 1 | PODAAC-GHVRS-3UO41<br>GHRSST v2 Level 3U Global Skin Sea Surface Temperature from the Visible Infrared Imaging Radiometer Suite (VIIRS) on the Suomi NPP satellite created by the NOAA Advanced Clear-Sky Processor for Ocean (ACSPO) | FTP | 1329097 | 5739.50 | 21 |
| 2 | PODAAC-GHMDA-2PJ<br>GHRSST Level 2P Global S<br>Resolution Imaging Spectror | | | | |
| 3 | PODAAC-ASOP2-25X0<br>MetOp-A ASCAT Level 2 25. | | | | |
| 4 | PODAAC-QSF12-L2B0<br>QuikSCAT Level 2B Ocean V<br>3 (Uncompressed) | | | | |
| 5 | PODAAC-GHMDT-2PJ<br>GHRSST Level 2P Global S<br>Resolution Imaging Spectror | | | | |
| 6 | PODAAC-TPMGD-BIN<br>TOPEX/POSEIDON ALTIME<br>GENERATION B | | | | |
| 7 | PODAAC-GOES3-3HO<br>GOES Level 3 6km Near Re | | | | |
| 8 | PODAAC-GHVRS-2PN<br>GHRSST Level 2P 1 m Dept<br>from the Visible Infrared Ima<br>satellite (GDS2) | | | | |
| 9 | PODAAC-ALTCY-TJ123<br>Integrated Multi-Mission Oce | | | | |
| 10 | PODAAC-AQR50-2SO<br>Aquarius Official Release Le | | | | |

## Top 10 Datasets for FTP by users during 2018

| Rank | Name | Tool | Files | Volume (GB) | Users |
|---|---|---|---|---|---|
| 1 | PODAAC-GMSLM-TJ142<br>Global Mean Sea Level Trend from Integrated Multi-Mission Ocean Altimeters TOPEX/Poseidon Jason-1 and OSTM/Jason-2 Version 4.2 | FTP | 7260 | 0.76 | 4183 |
| 2 | PODAAC-GHMDT-2PJ02<br>GHRSST Level 2P Global Skin Sea Surface Temperature from the Moderate Resolution Imaging Spectroradiometer (MODIS) on the NASA Terra satellite | FTP | 440305 | 8562.10 | 3205 |
| 3 | PODAAC-GMSLM-TJ124<br>Global Mean Sea Level Trend from Integrated Multi-Mission Ocean Altimeters TOPEX/Poseidon Jason-1 and OSTM/Jason-2 Version 4 | FTP | 1943 | 0.21 | 1134 |
| 4 | PODAAC-TEMSC-ANTS1<br>Antarctica Mass Variability Time Series Version 1 from JPL GRACE Mascon CRI Filtered | FTP | 5119 | 0.03 | 842 |
| 5 | PODAAC-OSCAR-03D01<br>OSCAR third degree resolution ocean surface currents | FTP | 38410 | 1109.95 | 652 |
| 6 | PODAAC-GHGMR-4FJ04<br>GHRSST Level 4 MUR Global Foundation Sea Surface Temperature Analysis (v4.1) | FTP | 178045 | 41930.37 | 573 |
| 7 | PODAAC-GHGMR-4FJ01<br>GHRSST Level 4 MUR Global Foundation Sea Surface Temperature Analysis | FTP | 181228 | 29.24 | 525 |
| 8 | PODAAC-TEMSC-GRTS1<br>Greenland Mass Variability Time Series Version 1 from JPL GRACE Mascon CRI Filtered | FTP | 4582 | 0.03 | 523 |
| 9 | PODAAC-TEMSC-SFC01<br>MASCON CLMR4 Scale Factor with CRI Filter | FTP | 2905 | 2.96 | 451 |
| 10 | PODAAC-TEMSC-LMC01<br>MASCON Land Mask used with CRI filter | FTP | 2334 | 2.36 | 420 |

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# New datasets released

* NOAA
  * OSPO VIIRS (L3U/L2P) v2.41
* RSS
  * WindSat L3U v7.0.1a
  * GMI L3U v8.2a
  * AMSR2 L2P v8a
  * TMI L3U V7.1a
  * AMSRE L3U v7as
  * MW&MW/IR OI L4 GLOB v5.0
* NAVO
  * VIIRS-NPP L2P 1-meter SST v3.0
* JPL
  * VIRSS L2p

# Tool Summary

* **SOTO2D**: visualization including GHRSST MODIS L2P, MUR L4, SMAP SSS
  * **Improved SOTO under design !**
* **PO.DAAC Web Services**: search, discovery, metadata, extract as "chained" services.
  * **L2 Subsetting Service**
* **HiTIDE**: GUI based L2 subsetting.
* **Live Access Server** (LAS) for L3/L4 subsetting and visualization
* **OPeNDAP:** Subsetting for L2/L3/L4
* **THREDDS:** Dataset aggregation and subsetting
* **Webification (w10n-sci)**: Arbitrary data store exposed as URLs. Subsetting by value.
* **Metadata Compliance Checker:** Granule level CF and ACDD metadata checks

# PO.DAAC Drive

- PO.DAAC (or Earthdata) Drive will replace FTP in the very near future
  - ***https://podaac-uat.jpl.nasa.gov/drive***
  - ***https://urs.earthdata.nasa.gov/users/new***
- How do user interact with PO.DAAC drive?
  - HTTPS interface, e.g., using browser or wget
  - Mount the entire PO.DAAC data store as if a local disk drive

**PO.DAAC Drive** Version: 1.1

PO.DAAC Drive is a new way of browsing data at PO.DAAC. Drive is an FTP alternative that allows users to access data via browser and command line as has been traditionally done, but can also allow users to mount the remote data to your own computer, seeing the data as if you had the entire PO.DAAC archive mounted on your own machine! A few simple steps will have you up and running with PO.DAAC Drive.

PO.DAAC Drive Test Period: 8 March, 2016 - 1 May, 2017

For questions or to provide feedback, please visit the **PO.DAAC Drive Forum**

# OceanWorks

* Server side analytics and data interrogation and visualization
* Improved search relevance for oceanographic dataset discovery
* In situ to satellite matchup capability
* New paradigm for data storage and access
* Several talks on Thurs highlighting this technology and capabilities