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

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Physical Oceanography DAAC (PO.DAAC)

20th GHRSST Science Team Meeting
Frascati, Italy
3 June 2019

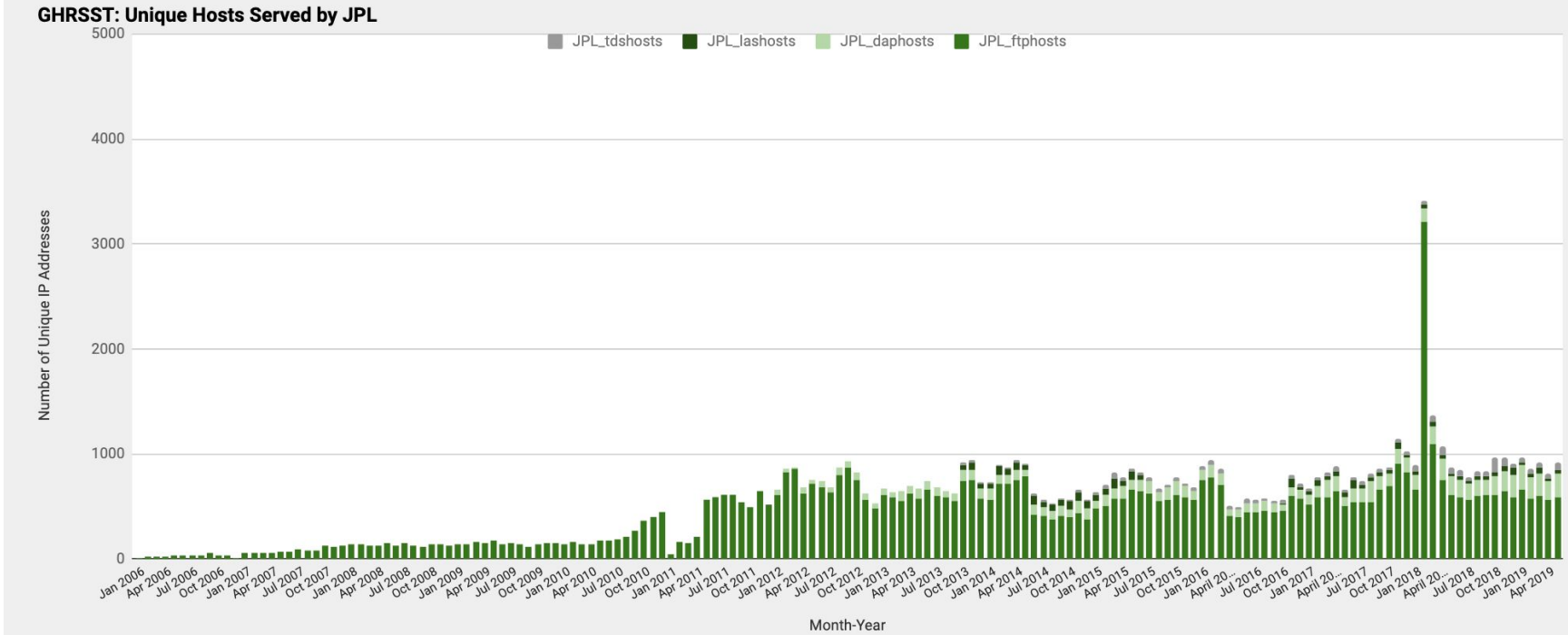
National Aeronautics and Space Administration

Jet Propulsion Laboratory
California Institute of Technology
Pasadena, California

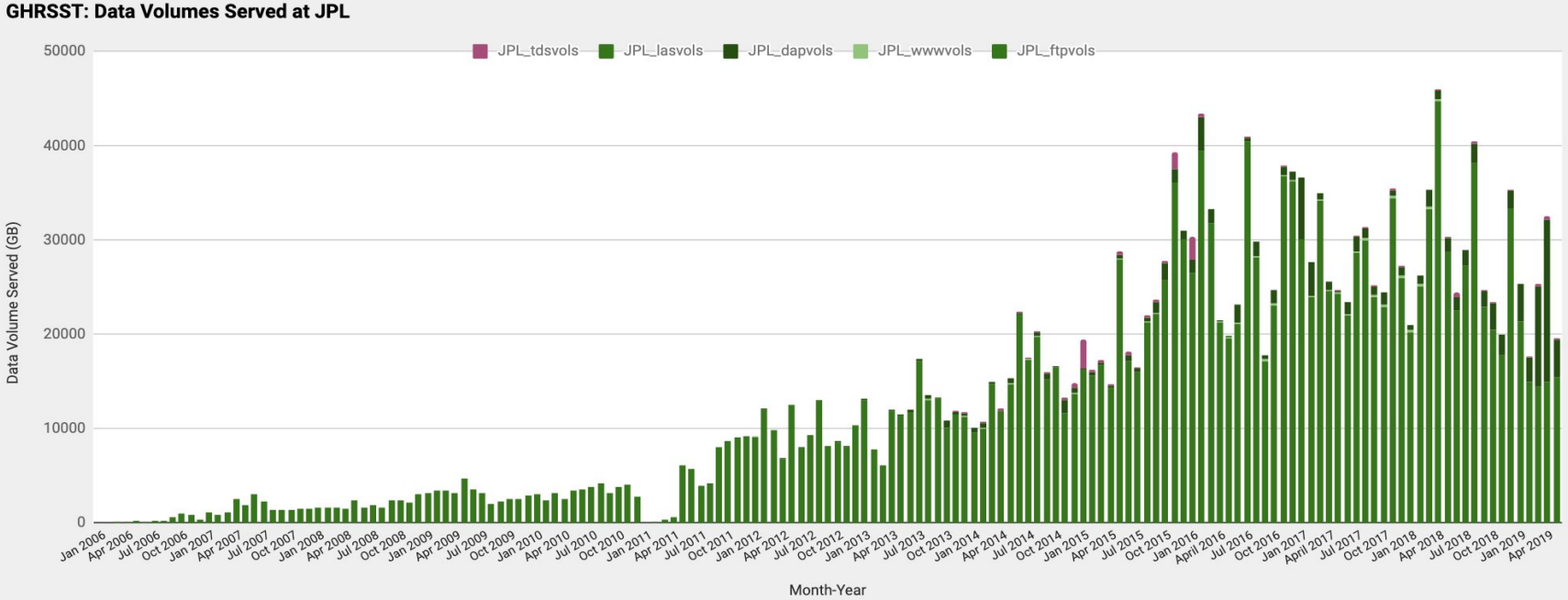
2018-2019 Highlights

* Several new and improved datasets ingested in last 12 months
  * VIIRS and GOES-16
  * Recent Saildrone and in situ datasets
* Continued support operational datastreams from 14 RDACs
* Maintain linkages to NASA CMR and LTSRF archive
  * See https://search.earthdata.nasa.gov/search
* Continued user uptake
  * Several GHRSST datasets in PO.DAAC top 10
* User community engagement
  * FTP retirement
* Supporting Regional Global Task Sharing (R/G TS) architecture formal proposal and ongoing work
* Improved Tools and Services, and Discovery

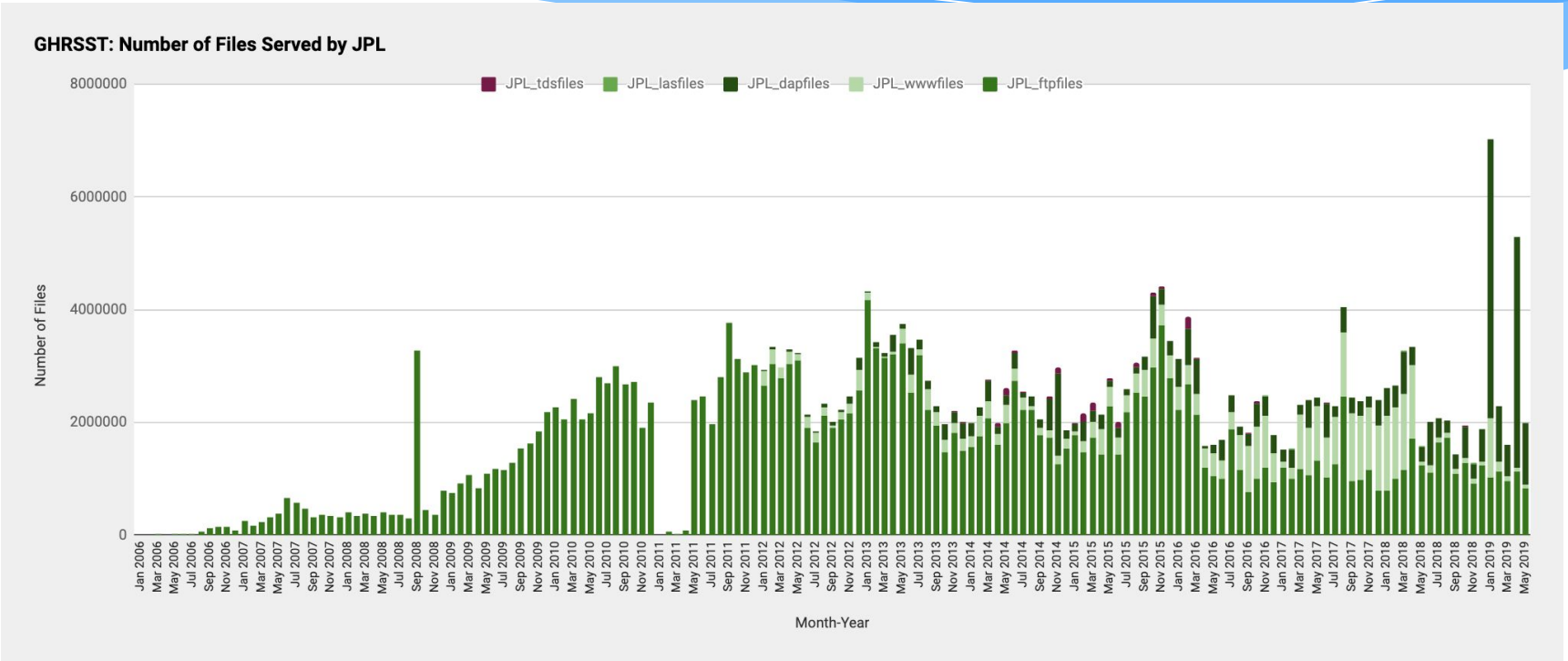
PO.DAAC Distribution metrics: Monthly Unique Users



Monthly Volumes



Monthly Files



PO.DAAC top 10

Top 10 Datasets for FTP by users during 2019

Rank	Name	Tool	Files	Volume
1	PODAAC-GMSLM-TJ142 Global Mean Sea Level Trend from Integrated Multi-Mission Ocean Altimeters TOPEX/Poseidon Jason-1 and OSTM/Jason-2 Version 4.2	FTP	9473	1.01
2	PODAAC-TEMSC-ANTS1 Antarctica Mass Variability Time Series Version 1 from JPL GRACE Mascon CRI Filtered	FTP	1392	0.01
3	PODAAC-OSCAR-03D01 OSCAR third degree resolution ocean surface currents	FTP	34600	829.19
4	PODAAC-GHOST-4FK01 GHRSST Level 4 OSTIA Global Foundation Sea Surface Temperature Analysis	FTP	164196	516.29
5	PODAAC-TEMSC-GRTS1 Greenland Mass Variability Time Series Version 1 from JPL GRACE Mascon CRI Filtered	FTP	1064	0.01
6	PODAAC-GHGMR-4FJ01 GHRSST Level 4 MUR Global Foundation Sea Surface Temperature Analysis	FTP	246371	141.47
7	PODAAC-GHG1S-4FP01 GHRSST Level 4 G1SST Global Foundation Sea Surface Temperature Analysis	FTP	56686	2400.00
8	PODAAC-GHGMR-4FJ04 GHRSST Level 4 MUR Global Foundation Sea Surface Temperature Analysis (v4.1)	FTP	100247	22544.18
9	PODAAC-GOSTA-HDF01 Global Ocean Surface Temperature Atlas Plus (MIT,UKMO,JPL)	FTP	2961	0.09
10	PODAAC-J2ODR-GPS00 OSTM GPS based orbit and SSHA OGDR	FTP	98264	59.40

Top 10 Datasets for FTP by files during 2019

Rank	Name	Tool	Files	Volume (GB)	Users
1	PODAAC-GHVRS-3UO26 GHRSST GDS2 Level 3U Global Skin Sea Surface Temperature version 2.60 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	1021795	3153.80	21
2	PODAAC-GHVRS-2PN30 GHRSST Level 2P 1 m Depth Global Sea Surface Temperature version 3.0 from the Visible Infrared Imaging Radiometer Suite (VIIRS) on the Suomi NPP satellite (GDS2)	FTP	425486	6675.61	18
3	PODAAC-J1GPN-NC00E Jason-1 GDR version E NetCDF	FTP	388493	1619.65	46
4	PODAAC-GHIAS-2PO02 GHRSST Level 2P Global skin Sea Surface Temperature from the Infrared Atmospheric Sounding Interferometer (IASI) on the Metop-B satellite (GDS V2) produced by OSI SAF	FTP	355220	43.15	6
5	PODAAC-GHMDA-2PJ02 GHRSST Level 2P Global Skin Sea Surface Temperature from the Moderate Resolution Imaging Spectroradiometer (MODIS) on the NASA Aqua satellite	FTP	331256	5332.80	88
6	PODAAC-ASOP2-25X01 MetOp-A ASCAT Level 2 25.0 km Ocean Surface Wind Vectors	FTP	305650	140.86	121
7	PODAAC-QSF12-L2B01 QuikSCAT Level 2B Ocean Wind Vectors in 12.5km Slice Composites Version 3 (Uncompressed)	FTP	295881	3566.63	164
8	PODAAC-GHGMR-4FJ01 GHRSST Level 4 MUR Global Foundation Sea Surface Temperature Analysis	FTP	246371	141.47	378
9	PODAAC-GHAMB-2PO02 GHRSST Level 2P sub-skin Sea Surface Temperature from the Advanced Very High Resolution Radiometer (AVHRR) on Metop satellites (currently Metop-B) (GDS V2) produced by OSI SAF	FTP	246148	784.27	16
10	PODAAC-GHAM2-2PR8A GHRSST Level 2P Global Subskin Sea Surface Temperature version 8a from	FTP	245653	1088.61	31

New datasets released

* VIIRS SST
  * L2P/L3U v2.61 on NPP and NOAA-20 from NOAA ACSPO
  * Level-2P SST v3.0 on NPP from NAVO
* GOES-16
  * ABI SST L2P/L3C v2.70 from NOAA ACSPO
* Level-4 K10-SST v1.0 from NAVO

Tools, Services and Discovery

* PO.DAAC Earthdata Drive
  * FTP replacement
* State Of The Ocean (SOTO) version 5
  * Analytics capability from Oceanworks (NEXUS)
  * Includes MUR L4 and MODIS L2
* HiTIDE
  * GUI based L2 subsetting
* OPeNDAP, THREDDS, LAS, Webification-sci, MCC
* Improved discovery
  * PO.DAAC dataset landing page markups using schema.org
* See poster by Wen-Hao Li

In Situ Datasets

* Saildrone
  * 2018 Alta California/Baja California cruise
  * Ongoing Arctic cruises
  * https://podaac.jpl.nasa.gov/saildrone
* SPURS-2 datasets
  * Eastern Tropical Pacific
  * 7 initial datasets with more to come (28 total)
    * CTD, XBT, ARGO, ADCP, WAMOS, SEA-POL
    * https://podaac.jpl.nasa.gov/spurs
* Future infusion strategies for accessing and visualizing global in situ data
* See posters by Armstrong et al., and Vazquez-Cuervo et al.