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NASA report to the GHRSST Science Team

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23nd GHRSST Science Team Meeting
June 27 - July 1, 2022

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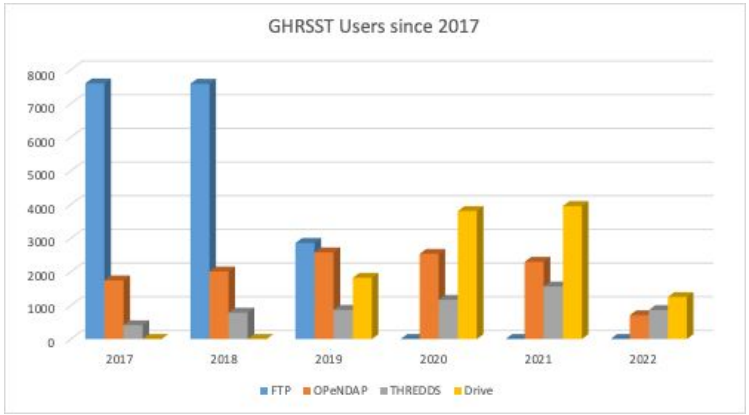
NASA Highlights

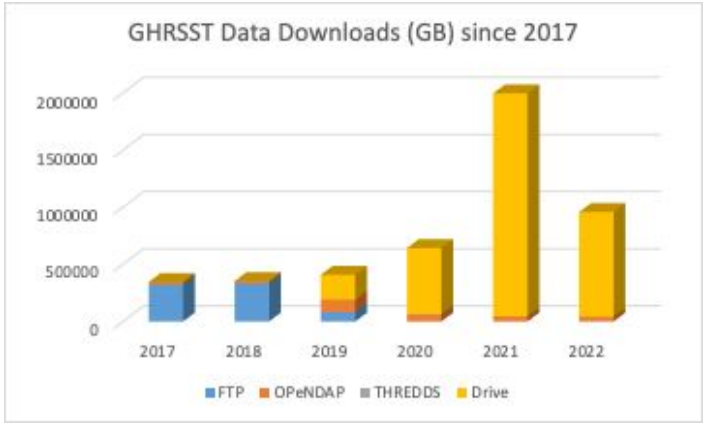
- PO.DAAC continues to migrate GHRSST data holdings to the NASA Earthdata Cloud (AWS-west) – Nearly done!
- The new cut-off date for on premise data access is on or around 30 Sep 2022
  - See posters and presentations by Wen-Hao Li and Ed Armstrong for context, capabilities, features and opportunities in the PO.DAAC cloud data paradigm
- MODIS_A, _T, VIIRS L2P production
  - Status is nominal. MODIS's continuing to produce excellent data
  - PO.DAAC working with NASA partners on retirement plan for MODIS. To be implemented in the very near future.
- MUR and MUR25 L4 production
  - Continuing as a best effort basis by P(
- NASA Physical Oceanography Office is org
  for next generation SST, cloud-based data
  - Details are still to be finalized. Timelir
- New (and emerging) GHRSST datasets:

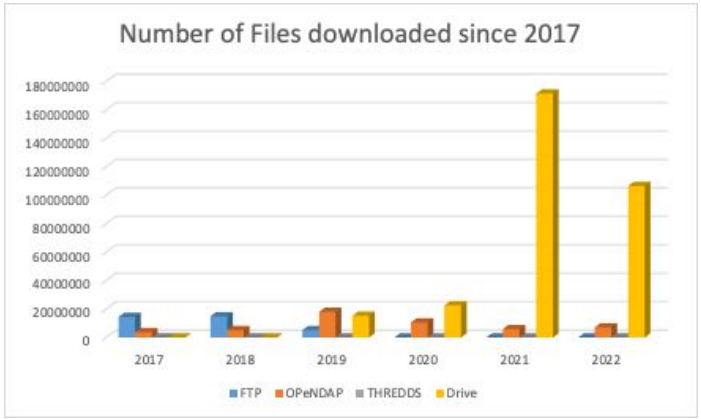
GHRSST datasets released since June 2021

1. L3S_LEO_AM-STAR-v2.80
2. VIIRS_NPP-STAR-L2P-v2.80
3. VIIRS_N20-STAR-L2P-v2.80
4. VIIRS_NPP-STAR-L3U-v2.80
5. VIIRS_N20-STAR-L3U-v2.80
6. EWSG1-NAVO-L2P-v01
7. GOES16-SST-OSISAF-L3C-v1.0
8. SEVIRI_SST_DR-OSISAF-L3C-v1.0
9. MW_IR_OI-REMSS-L4-GLOB-v5.1 (release soon)
10. MW_OI-REMSS-L4-GLOB-v5.1 (release soon)

GHRSST Data Usage Metrics







Cloud metrics since Dec 2021

Files	Users	Volumes (GB)
3080263	Undefined	152099.7

MISST (Multi-sensor Improved SST) Follow-on activities

- Ongoing 120-day Arctic Saildrone cruise
- Data from previous cruises (deployments 1036 and 1037) available at PO.DAAC and Saildrone
  - Fully integrated with PO.DAAC tools and services
- Analysis for improving MODIS mask at high latitudes
- Analysis of MIZ variability & SIC data for improvement of L4 Arctic data
- Ongoing analysis of diurnal warming flagging & modeling in the Arctic.
- Ongoing analysis of fronts in the Arctic & in the California Current.

Publications and other activities

- Vazquez-Cuervo, J.; Castro, S.L.; Steele, M.; Gentemann, C.; Gomez-Valdes, J.; Tang, W. Comparison of GHRSST SST Analysis in the Arctic Ocean and Alaskan Coastal Waters Using Saildrones. *Remote Sens.* **2022**, *14*, 692. https://doi.org/10.3390/rs14030
- Szczodrak, M.D., & Minnett, P.J. (2022). Relative Merits of Optimal Estimation and Non-Linear Retrievals of Sea-Surface Temperature from MODIS. Remote Sensing 14, 2249. https://doi.org/10.3390/rs14092249
- GHRSST-23 presentation by Chong Jia on retrieving SSTskin values from the Saildrone radiometers