



G16 LTSRF Update

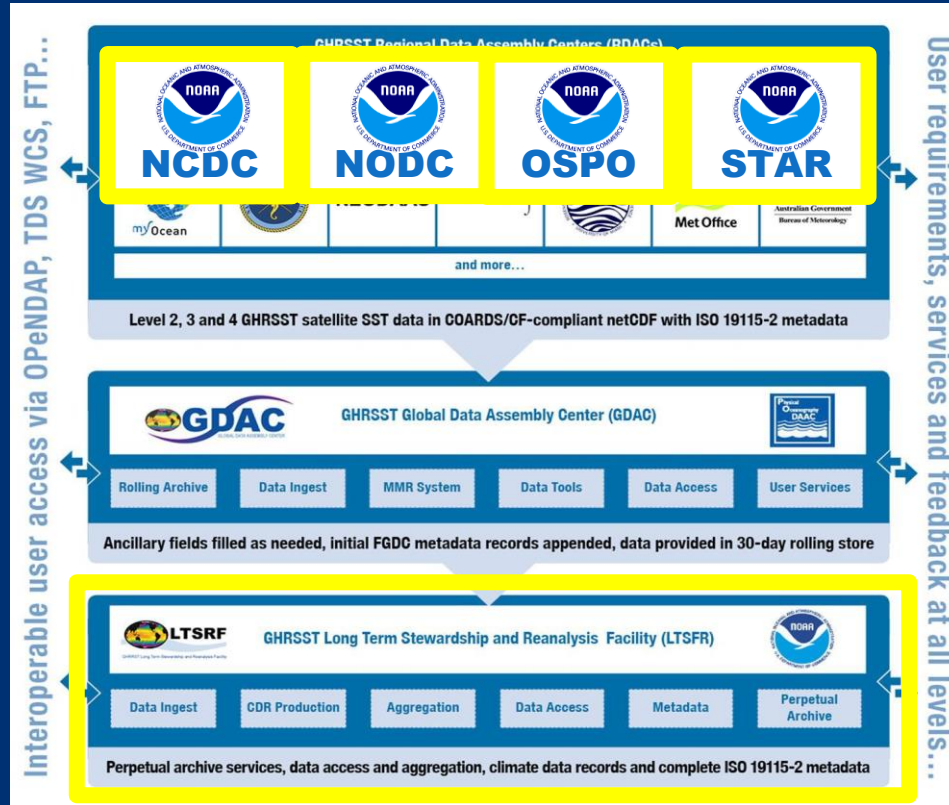
Presented by Kenneth S. Casey
on behalf of the LTSRF Team



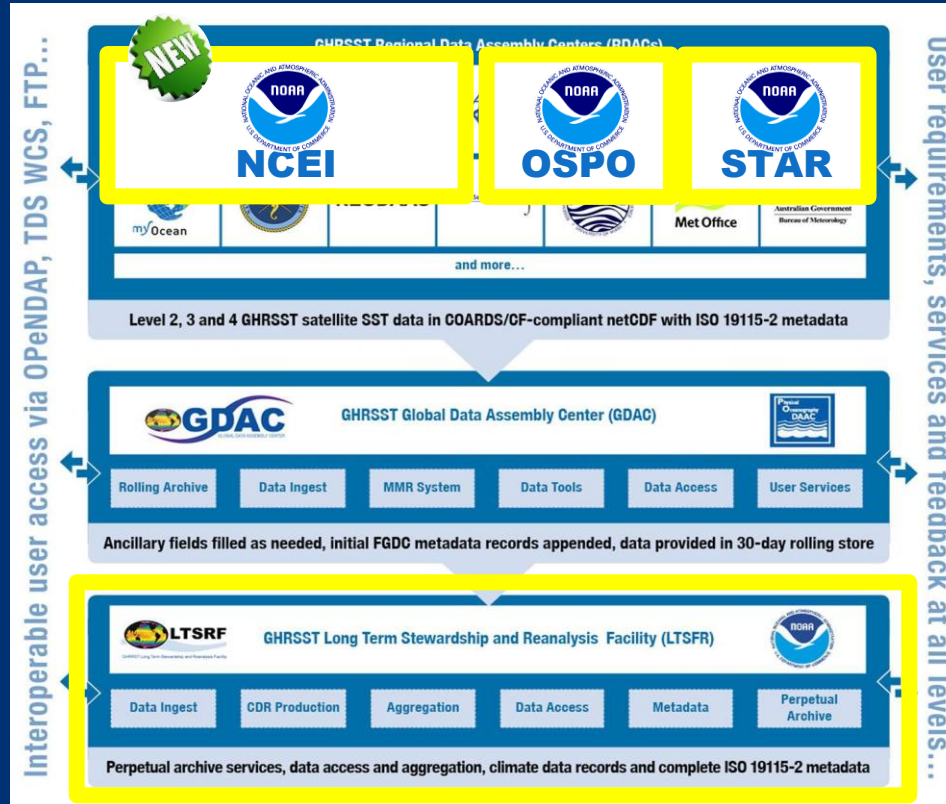
Long Term Stewardship and Reanalysis Facility (LTSRF) at NCEI

Korak Saha, Ajay Krishnan, Yuanjie Li, John Relph,
Dexin Zhang, Yongsheng Zhang, Sheekela Baker-Yeboah

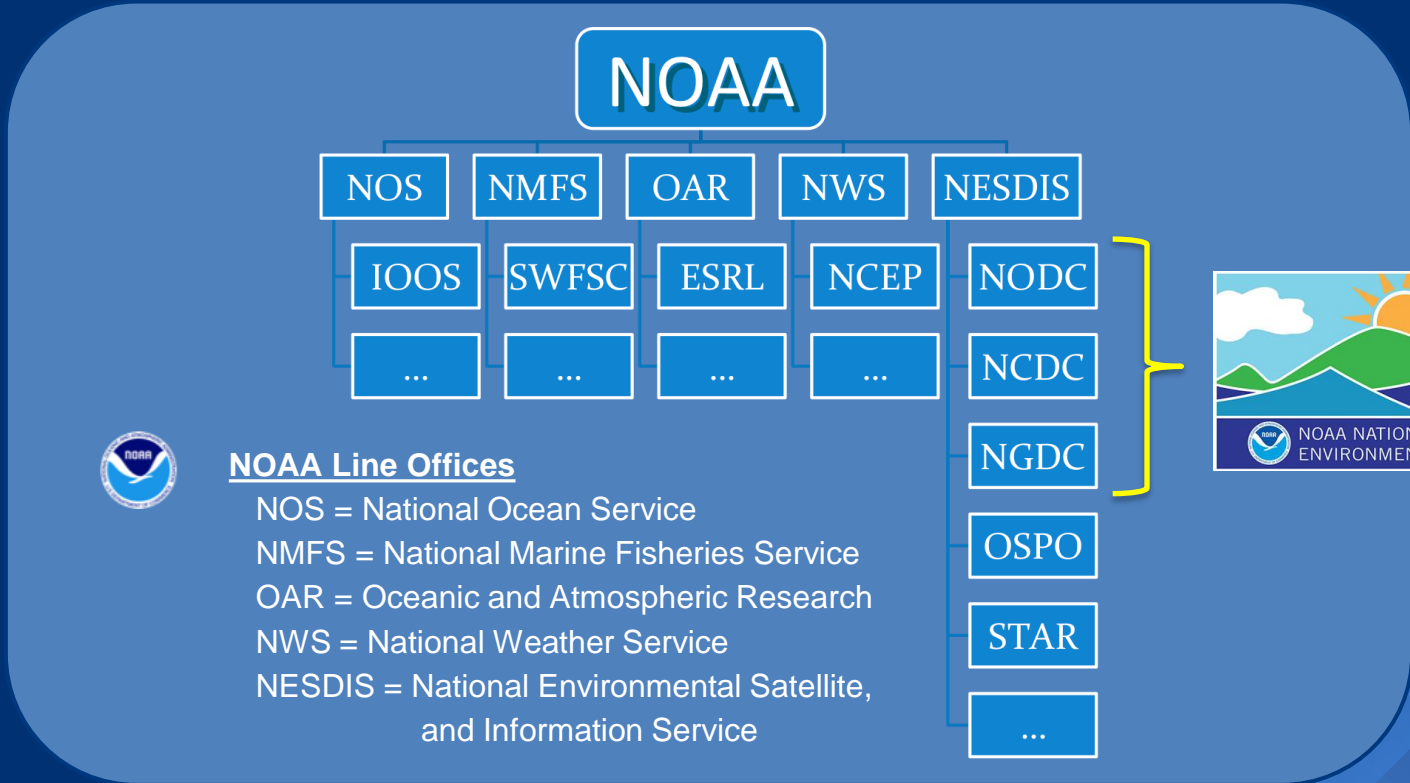
Last Year



This Year

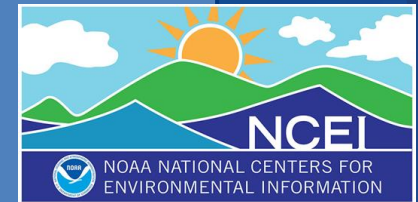


NCEI = NCDC + NODC + NGDC

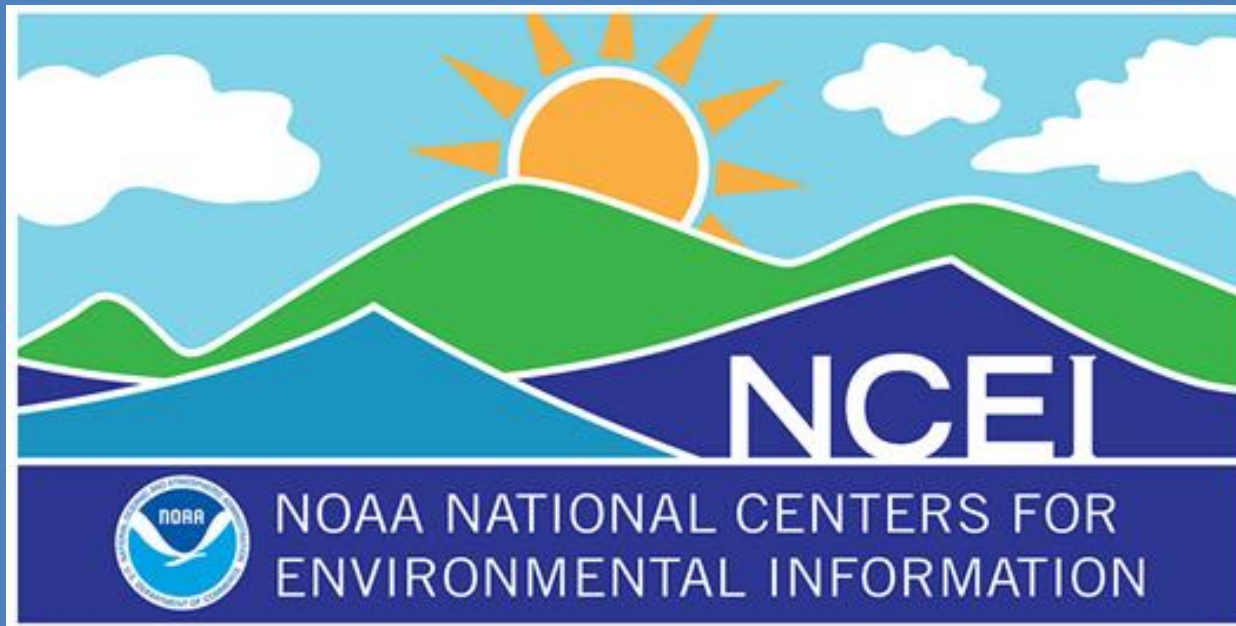


NOAA Line Offices

- NOS = National Ocean Service
- NMFS = National Marine Fisheries Service
- OAR = Oceanic and Atmospheric Research
- NWS = National Weather Service
- NESDIS = National Environmental Satellite, and Information Service



National Centers for Environmental Information





NCEI: National Centers for Environmental Information

- Continues to Operate the Long Term Stewardship and Reanalysis Facility (LTSRF)
- RDAC for two L4 Products
 - AVHRR_OI
 - AVHRR_AMSR_OI*
- RDAC for Pathfinder
 - PFV5.2 in L3C
 - PFV5.3 in L2P, L3U, and L3C coming soon

* ceased in 2011





LTSRF: Long Term Stewardship and Reanalysis Facility

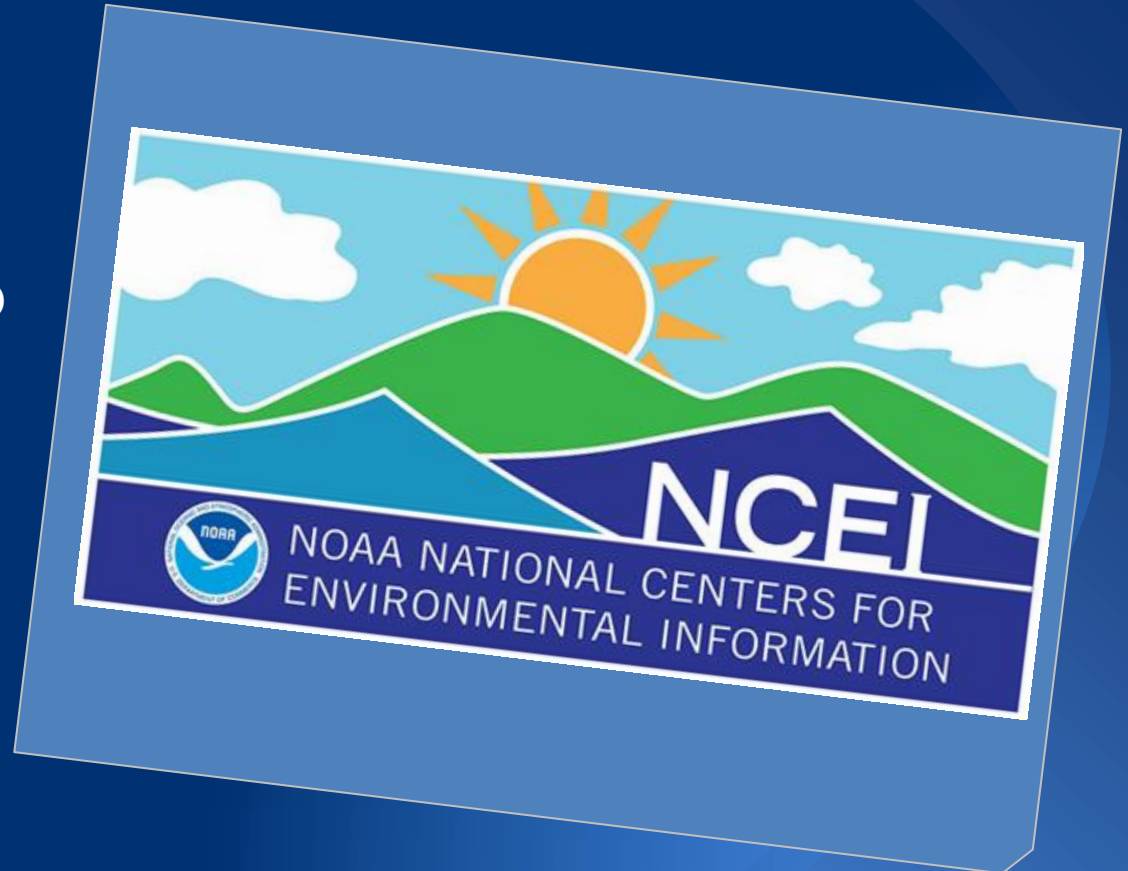
- Continues to archive all GHRSSST data via GDAC
- Continues to provide enhanced collection and granule level discovery services, plus access:
 - ✓ FTP/HTTP
 - ✓ THREDDS Data Server
 - ✓ OPeNDAP Hyrax Server
 - ✓ Live Access Server
 - ✓ ArcGIS Server 10.3 (soon!)





LTSRF: Key Updates

- Dynamic Data Table
- Digital Object Identifiers (DOIs)
- Real-time archive of OSPO ACSP0 VIIRS
- CEOS CWIC Integration
- Archive and Access Statistics
- On the Horizon/Issues





LTSRF: Dynamic Data Table

Dynamic Data Table

- Built automatically and dynamically from metadata and archive metrics
- Includes key summary information for each product
- Includes data access and metadata links
- Summary stats for all products displayed at bottom

GHRSSST Products in the LTSRF									
RDAC	Product	Product Level	Start Date	End Date	GDS Version	Grid / Pixel Resolution	Metadata	Access	Disk Volume · Number of Days · Number of Files
ABOM	GAMSSA_28km GLOB	L4	2008-08-24	2015-05-30	1.5	28 km	Details · Granule Search · Live Access Server	FTP · HTTP · OPeNDAP · THREDDS	2.4GB · 2468 days · 2468 files
	RAMSSA_09km AUS	L4	2008-04-01	2015-05-30	1.5	9 km	Details · Granule Search · Live Access Server	FTP · HTTP · OPeNDAP · THREDDS	4.1GB · 2593 days · 2597 files
CMC	CMC0.2deg GLOB	L4	2013-06-27	2015-05-04	2.0	0.2°	Details · Granule Search · Live Access Server	FTP · HTTP · OPeNDAP · THREDDS	0.9GB · 448 days · 448 files
DMI	DMI_OI GLOB	L4	2013-12-11	2015-04-23	2.0	0.05°	Details · Granule Search	FTP · HTTP · OPeNDAP · THREDDS	20.4GB · 123 days · 136 files
	DMI_OI NSEABALTIC	L4	2007-06-04	2015-05-31	1.5	3 km	Details · Granule Search · Live Access Server	FTP · HTTP · OPeNDAP · THREDDS	1.5GB · 2887 days · 2887 files
EUR	AMSRE	L2P	2004-12-19	2007-02-26	1.5	25 km	Details · Granule Search · Live Access Server	FTP · HTTP · OPeNDAP · THREDDS	3.0GB · 744 days · 8995 files
	ATS_NR_2P	L2P	2004-12-30	2009-09-29	1.5	1 km	Details · Granule Search	FTP · HTTP · OPeNDAP · THREDDS	315.4GB · 1643 days · 22303 files

<http://ghrsst.nodc.noaa.gov/accessdata.html>



LTSRF: DOIs

Digital Object Identifiers (DOIs)

- Can be minted for your GDS datasets
- Sent out request for authorship lists
- Not required
- Will be discussed at this meeting

The screenshot shows the NOAA National Oceanographic Data Center (NODC) website. The page title is "GHRSSST Level 2P 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 (ACSP0) (GDS version 2)". The page includes a "Details" tab, a "Preview graphic" section with a small map, and a "Dataset Citation" section with the following text: "Sea Surface temperature retrievals produced by NOAA/NESDIS/OSPO office from VIIRS sensor". Below the main text, there is a "Show More" link. The page also features a "Dataset Identifier(s)" section with two links: "gov.noaa.nodc:GHRSSST-VIIRS_NPP-OSPO-L2P-v2.3" and "doi:10.7289/V5PR7SX5". At the bottom, there is a "Metadata" section with "ISO 19115-2 Metadata".

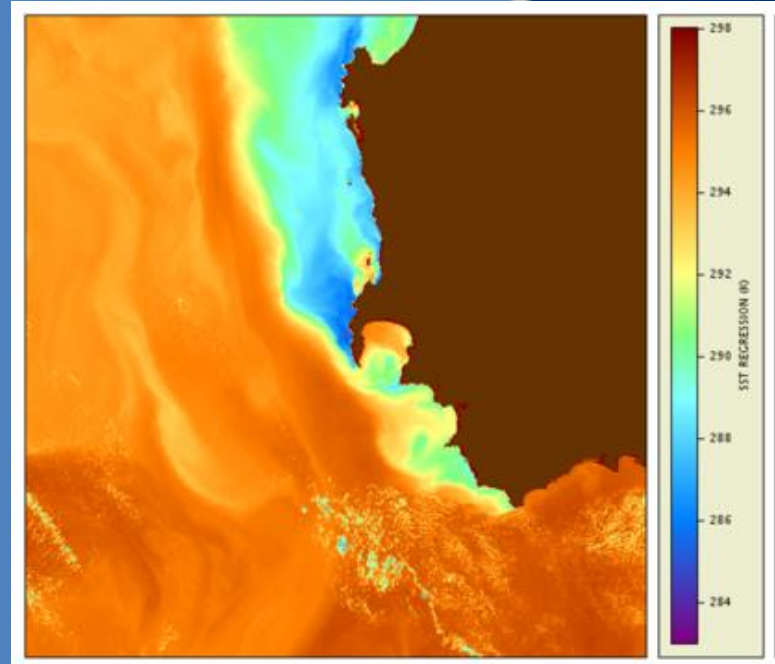
<http://dx.doi.org/10.7289/V5PR7SX5>



LTSRF: Real-time Archive of OSPO ACSPO VIIRS

Real-time Archive of OSPO ACSPO VIIRS

- Archived without 30-day lag to meet NOAA requirements from JPSS Program
- May be applied to other NOAA GHRSSST datasets
- Mechanism established (though not employed) for direct ingest of GHRSSST data by LTSRF



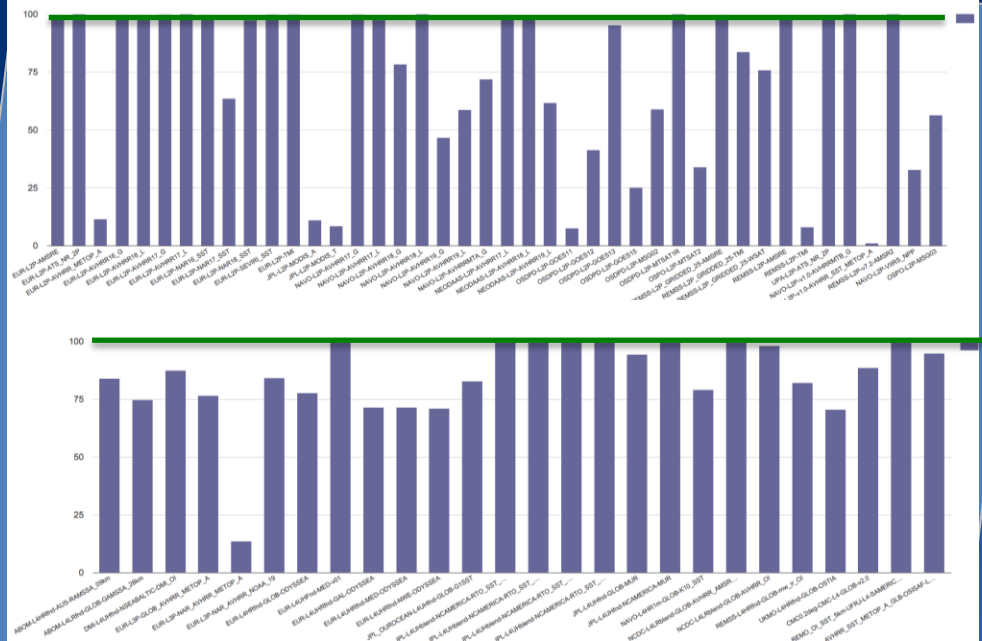


LTSRF: CEOS CWIC Integration Update

CEOS CWIC Integration Update

- Connection to CEOS WGISS Integrated Catalog (CWIC) maintained
- Granule inventories for discovery nearing 100%

L2P



L3/L4

100%

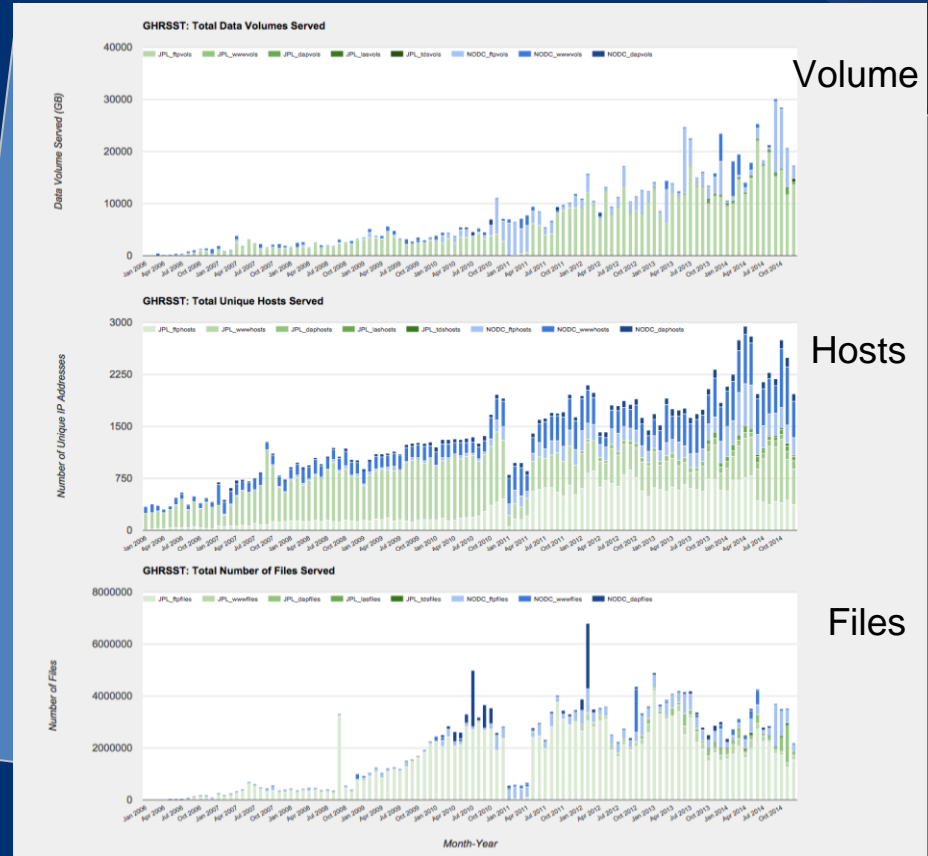


LTSRF: Archive and Access Statistics + GDAC

Archive and Access Statistics

January 2006 – June 2015

- Volume Accessed/Month
- # Hosts Served/Month
- # Files Accessed/Month





LTSRF: Daily Archive and Access Statistics

	2006	2007	2008	2009	2010	2011	2012	2013	2014
Files served per day	85	1130	1734	3413	21,956	14,896	28,807	20,056	21,196
GB served per day	0.2	1.8	3.9	18.8	66.3	115	73	145	156
Users served per day	3	7	8	8	11	19	19	24	36



LTSRF: Total Archive Holdings

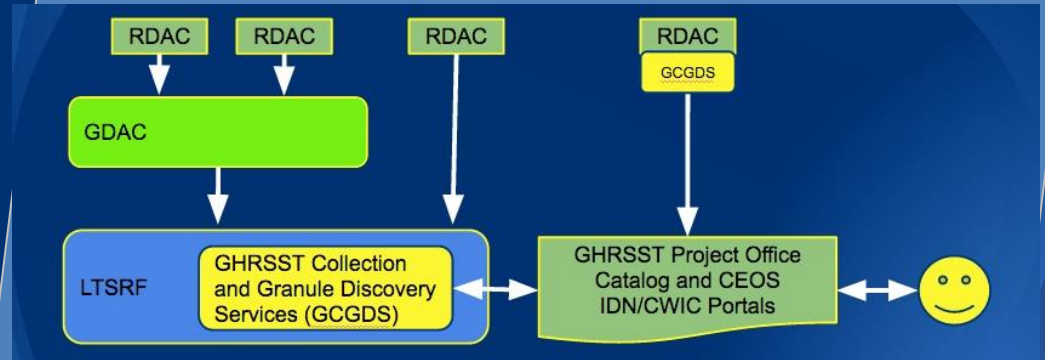
	2008	2009	2010	2011	2012	2013	2014	2015*
Products	22	26	27	40	59	60	62	77
Accessions	39,048	49,957	59,982	67,906	92,282	105,046	112,182	123325
Files	679,000	993,580	1,352,901	1,662,004	2,459,724	3,290,806	3,971,657	4,894,891
Volumes (TB)	13	20	28	34	57	69	81	92

* As of 17 July 2015

LTSRF: On the Horizon/Issues

On the Horizon/Issues

- Not yet known when URLs will change to new NCEI name, but long lead times and re-directs will be enabled
- Future Regional/Global Task Sharing Framework ideas



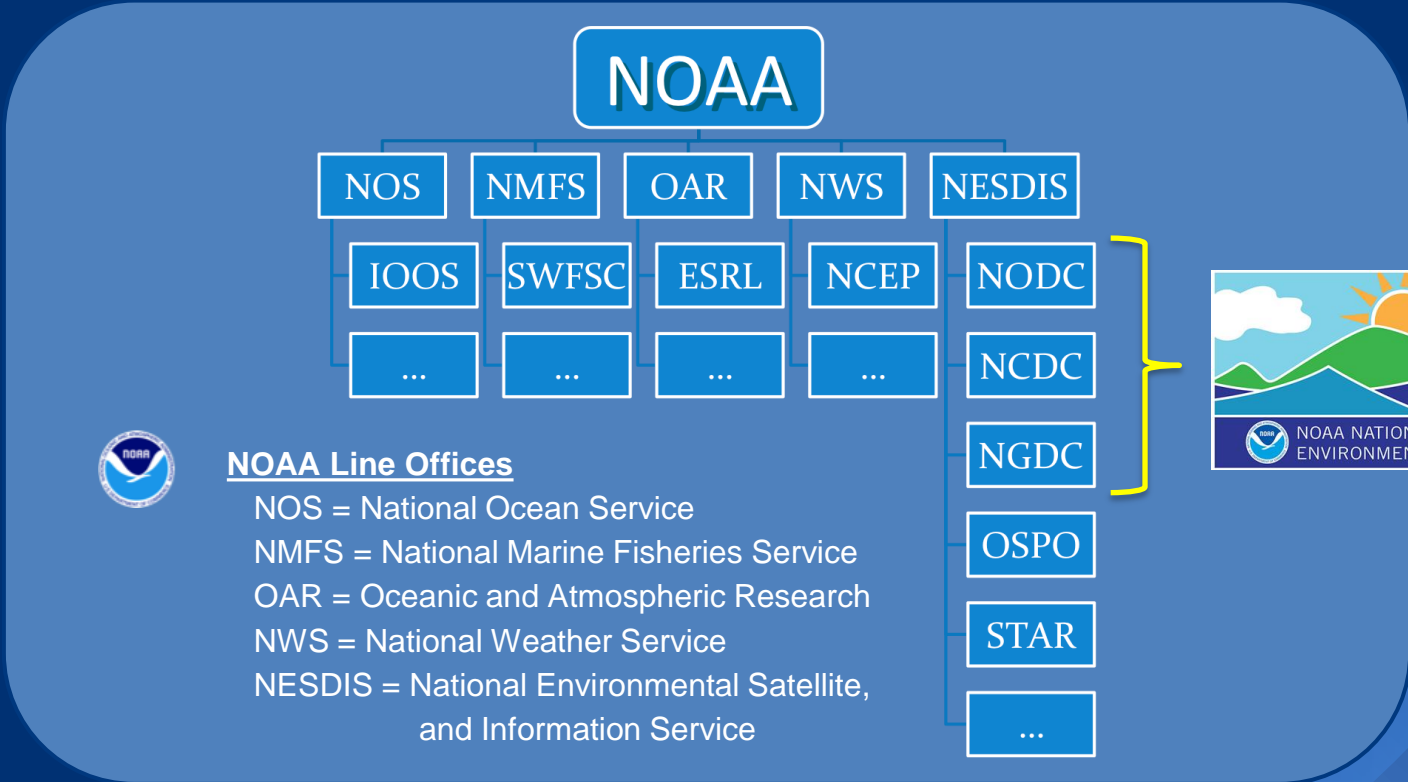


G16 NCEI RDAC Update

Presented by Kenneth S. Casey
on behalf of the NCEI Team

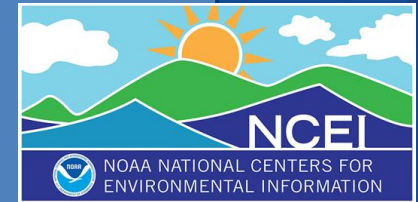
Viva Banzon, Korak Saha, Ajay Krishnan, Yuanjie Li, John Relph,
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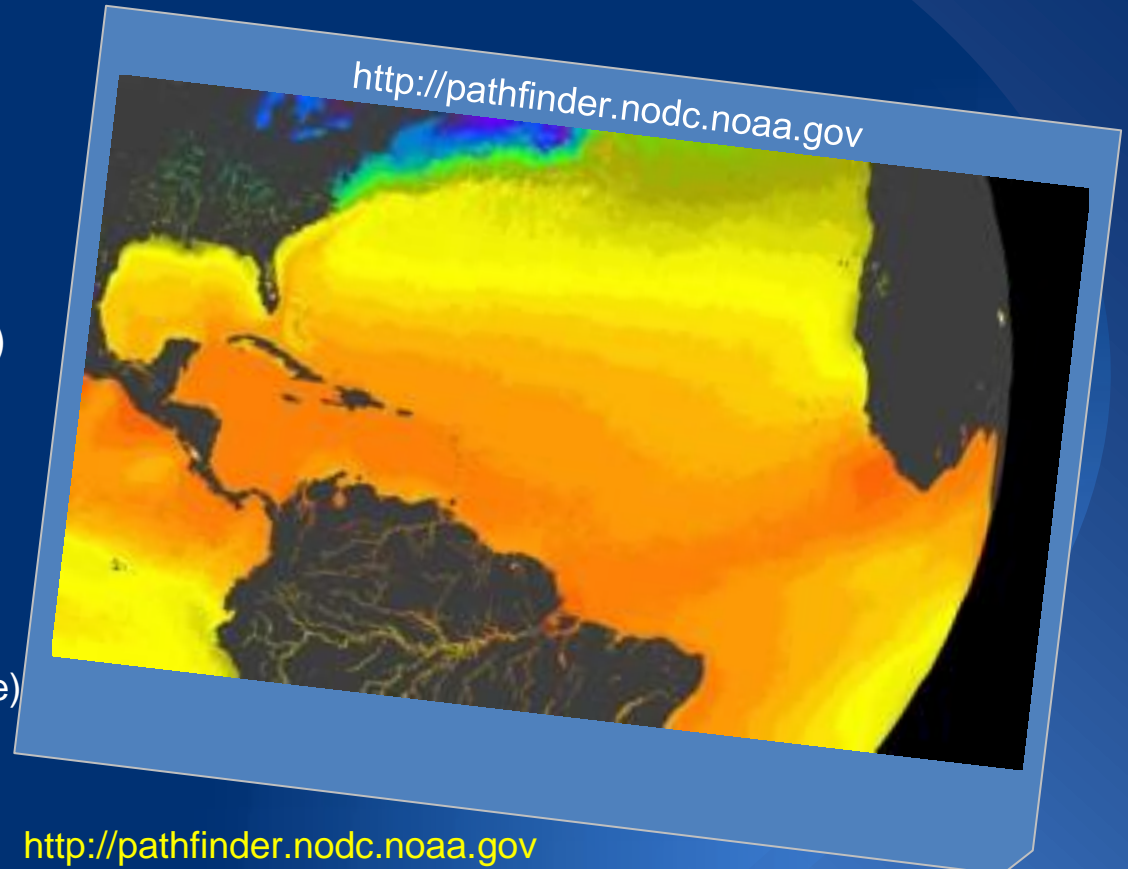
- CEOS SST Virtual Constellation Co-chair
- Science Team and Advisory Council members
- Long Term Stewardship and Reanalysis Facility (LTSRF)
- RDAC for Pathfinder and Daily OISST Products
- L0/L1 POES/GOES/NPP archive





NCEI: National Centers for Environmental Information

- Pathfinder V5.2 in GDS2 L3C: 1981-2013 (10.7289/V5WD3XHB)
- CoRTAD Version 5 (7-day time series and climatology)
- Pathfinder Version 5.3 in GDS2 L2P, L3U, and L3C, 1981-2013
- ✓ July /Aug 2015: processing in AWS
- ✓ Numerous improvements (next slide)
- ✓ 2016: V5.3 Quarterly updates
- ✓ Dec 2016: V6 for 1981-2015 with uncertainties and times



<http://pathfinder.nodc.noaa.gov>

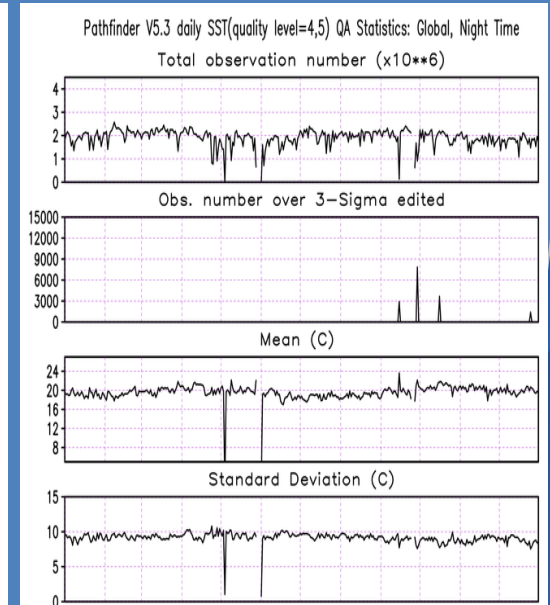
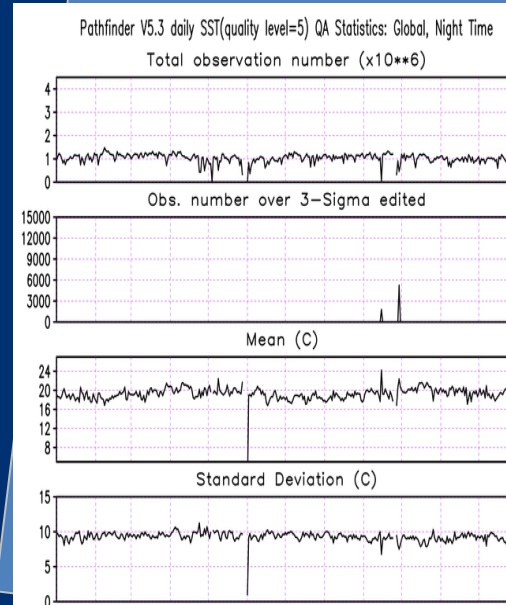


NCEI: National Centers for Environmental Information

Pathfinder V5.3 Improvements

- ✓ All quality levels included
- ✓ Improved handling of sun glint areas
- ✓ NOAA-7 and 9 cloud tree tests now consistent
- ✓ L2P and L3U include sst_dtime
- ✓ Anomalous hotspots at land-water boundaries identified and flagged
- ✓ Improved land mask
- ✓ Antarctic ice shelves identified as ice
- ✓ True netCDF-4 classic mode
- ✓ Rich Inventories generated

<http://pathfinder.nodc.noaa.gov>



<http://pathfinder.nodc.noaa.gov>

NCEI: National Centers for Environmental Information

- Version 2, 0.25° Daily OISST L4 Products:
 - AVHRR_OI: 1981-2015
 - AVHRR_AMSR_OI: 1981-2011/09/03*
- Code rejuvenation effort expected to complete 3 tier test by end of year
- New Development Underway:
 - ✓ Revival of microwave + infrared
 - ✓ Higher resolution OI

