NOAA CoastWatch/ OceanWatch Sea Surface Temperature Data Dissemination

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and the NOAA CoastWatch/OceanWatch Team

*Global Science & Technology, Inc.

2017 STAR/JPSS Annual Science Meeting
College Park, MD, 14-18 August 2017

STAR Center for Satellite Application and Research
National Environmental Satellite, Data, and Information Service (NESDIS)

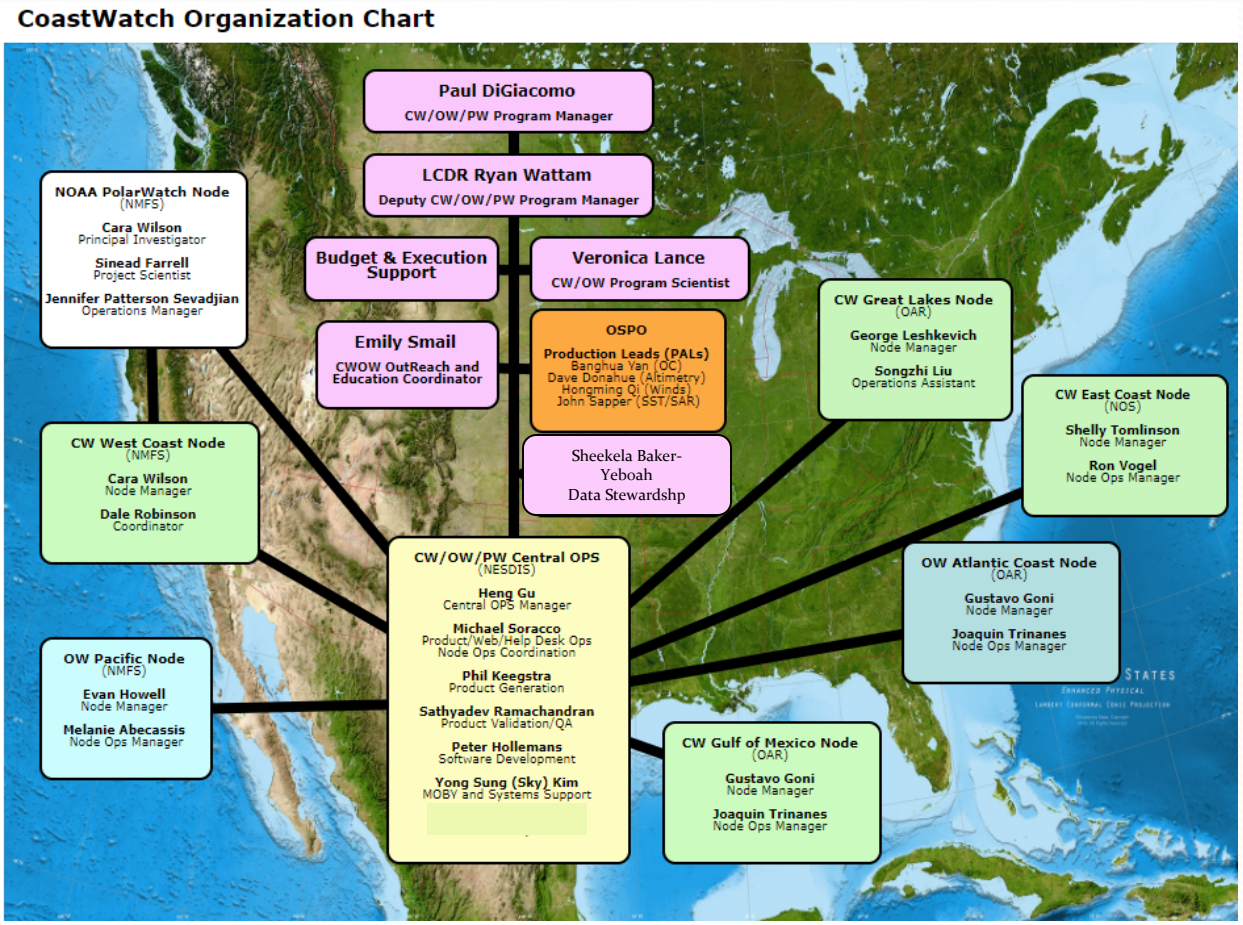
NOAA CoastWatch/OceanWatch Team

Paul DiGiacomo – Program Manager

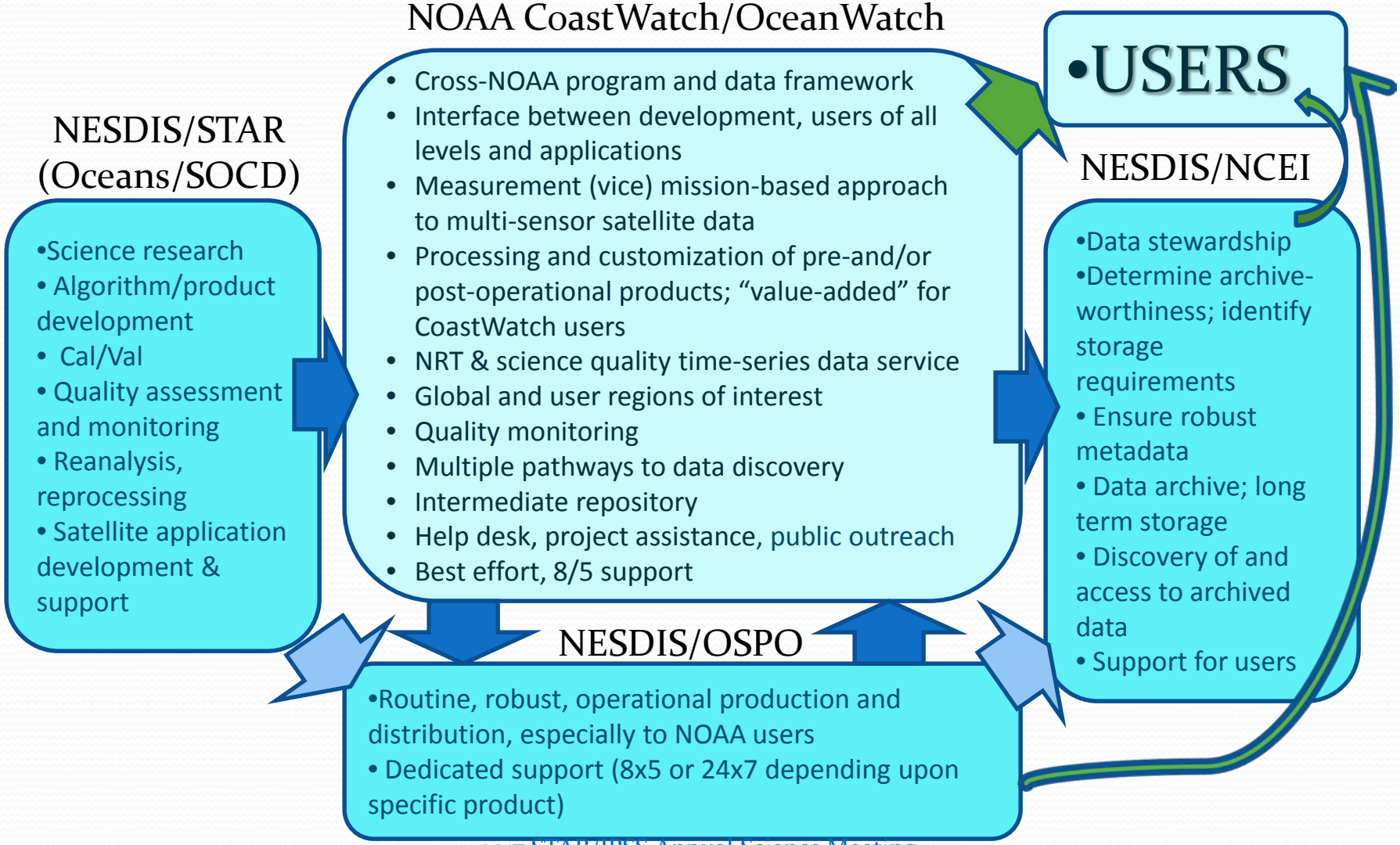
Full Time "CW Central" Technical Team	With Support From
Heng Gu	Veronica Lance
Phil Keegstra	Emily Smail
Sathya Ramachandran	Sheekela Baker-Yeboah
Michael Soracco	Ryan Wattam

And PolarWatch
and 5 Regional Nodes

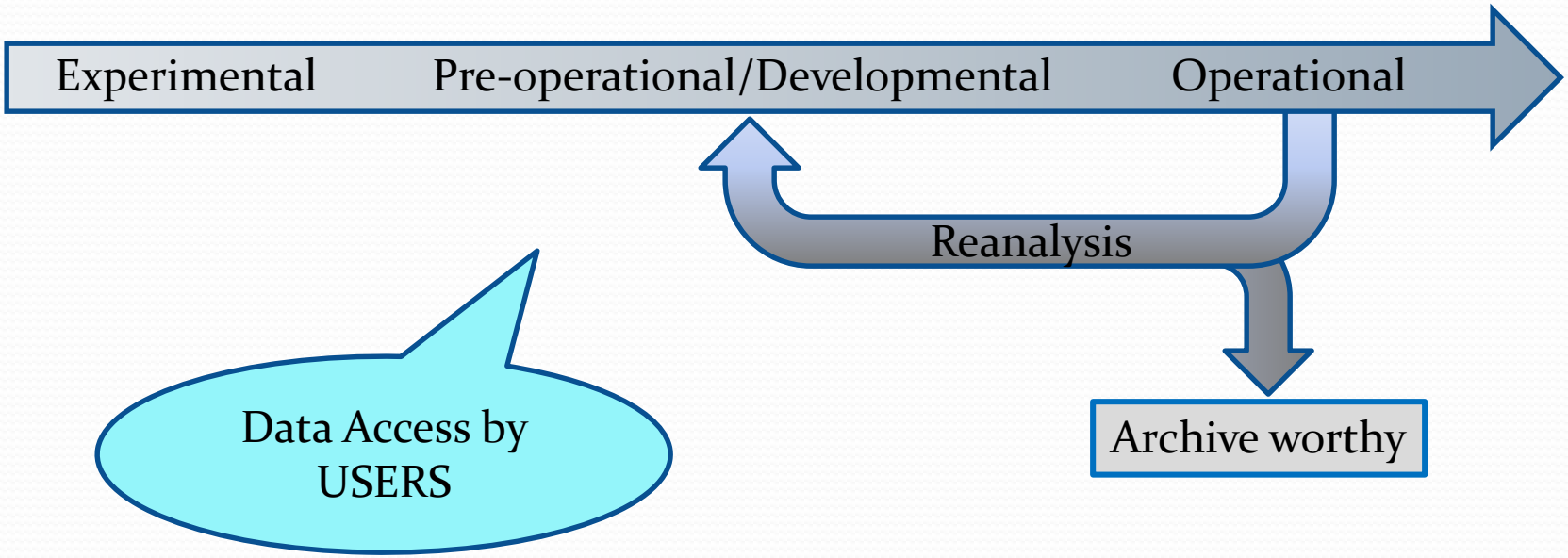
NOAA CoastWatch/OceanWatch/PolarWatch



Role of NOAA CoastWatch/OceanWatch



Typical Product Lifecycle



Current SST at NOAA CoastWatch/OceanWatch

Processing	Program	Latency	Temporal Availability	Spatial Coverage	Spatial Resolution	Data format(s)	Direct Source to CWOW
Ctera*	AVHRR	NRT	Daily, rolling 2 weeks	CW heritage regions		HDF, GeoTIFF	OSPO
ACSPO	**VIIRS**	**NRT**	**Daily, rolling 2 weeks**	**CW heritage regions**	**Nominal 750 m**	**HDF, GeoTIFF**	**OSPO**
GOES-SST*	Geo-Stationary	NRT	4x per day	Geo Basins	6 km	HDF, GeoTIFF	OSPO
Blended	Geo-Polar Blended	NRT	Daily	Global	5 km	HDF, GeoTIFF	OSPO
ACSPO	**VIIRS RAN-1 L2P, L3U**	**Delayed Mode**	**2002 to 2015****	**Global**	**4 km GAC**	**NetCDF**	**STAR/SST team**
ACSPO	AVHRR RAN-1, L2P	Delayed Mode	2002 to 2015**	Global	4 km GAC	NetCDF	STAR/SST team

*transitioning to ACSPO

**will be backfilling from 2015 through to present

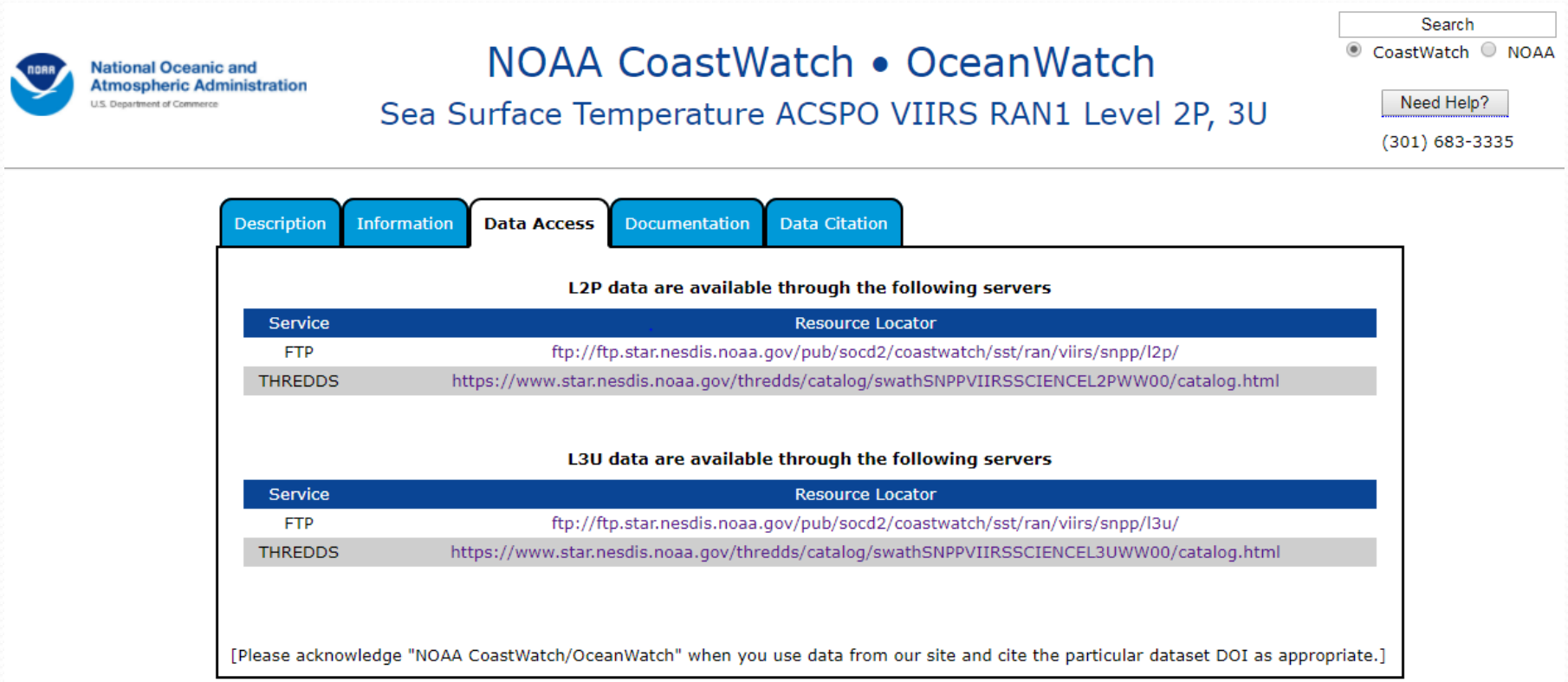
SST at NOAA CoastWatch/OceanWatch

Processing	Program	Latency	Links to Browse Images	Links to Data
Ctera	AVHRR	NRT	https://coastwatch.noaa.gov/cw_html/NearRealTimeSearch.html?region=ALL&product=sst&sensor=AVHRR&daysback=1&desc=sat	https://cw2.espc.nesdis.noaa.gov/data/avhrr/ ftp://ftpcoastwatch.noaa.gov/pub/data/products/avhrr/
ACSPO	**VIIRS**	NRT	http://coastwatch.noaa.gov/cw_html/NearRealTimeSearch.html?region=ALL&product=sst&sensor=VIIRS&daysback=1&desc=sat	https://cw2.espc.nesdis.noaa.gov/data/viirs/ ftp://ftpcoastwatch.noaa.gov/pub/data/products1/viirs/
GOES-SST	Geo-Stationary	NRT	https://coastwatch.noaa.gov/cw_html/NearRealTimeSearch.html?region=ALL&product=sst&sensor=Imager&daysback=1&desc=sat	https://cw2.espc.nesdis.noaa.gov/data/goes/ ftp://ftpcoastwatch.noaa.gov/pub/data/products1/goes/
Blended	Geo-Polar Blended	NRT	https://coastwatch.noaa.gov/cw_html/NearRealTimeSearch.html?region=ALL&product=sst&sensor=Multi&daysback=2&desc=sat	https://cw2.espc.nesdis.noaa.gov/data/goespoes/ ftp://ftpcoastwatch.noaa.gov/pub/data/products/goespoes/
ACSPO	**VIIRS** RAN-1 L2P	Delayed Mode	Being incorporated into Data Discovery Tools with browse PNG's	https://www.star.nesdis.noaa.gov/thredds/catalog/swathSNPPVIIRSSCIENCEL2PWW00/catalog.html ftp://ftp.star.nesdis.noaa.gov/pub/socd2/coastwatch/sst/ran/viirs/snpp/l2p/
ACSPO	**VIIRS** RAN-1 L3U	Delayed Mode	Being incorporated into Data Discovery Tools with browse PNG's	https://www.star.nesdis.noaa.gov/thredds/catalog/swathSNPPVIIRSSCIENCEL3UWW00/catalog.html ftp://ftp.star.nesdis.noaa.gov/pub/socd2/coastwatch/sst/ran/viirs/snpp/l3u/
ACSPO	AVHRR RAN-1	Delayed Mode	Being incorporated into Data Discovery Tools with browse PNG's	ftp://ftp.star.nesdis.noaa.gov/pub/socd2/coastwatch/sst/ran/avhrr_gac/ https://www.star.nesdis.noaa.gov/thredds/socd/coastwatch/acspo/catalog_sst_acspo_avhrrgac.html

Website Revamp v.1.2 in Progress



SST Product Pages



National Oceanic and Atmospheric Administration
U.S. Department of Commerce

NOAA CoastWatch • OceanWatch

Sea Surface Temperature ACSPO VIIRS RAN1 Level 2P, 3U

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Description | Information | **Data Access** | Documentation | Data Citation

L2P data are available through the following servers

Service	Resource Locator
FTP	ftp://ftp.star.nesdis.noaa.gov/pub/socd2/coastwatch/sst/ran/viirs/snpp/l2p/
THREDDS	https://www.star.nesdis.noaa.gov/thredds/catalog/swathSNPPVIIRSSCIENCEL2PWW00/catalog.html

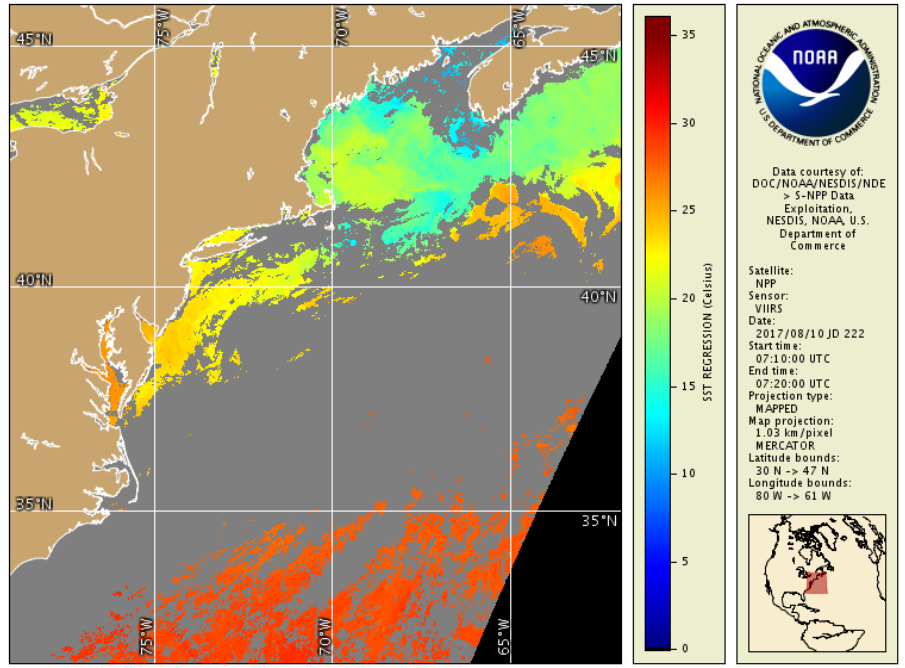
L3U data are available through the following servers

Service	Resource Locator
FTP	ftp://ftp.star.nesdis.noaa.gov/pub/socd2/coastwatch/sst/ran/viirs/snpp/l3u/
THREDDS	https://www.star.nesdis.noaa.gov/thredds/catalog/swathSNPPVIIRSSCIENCEL3UWW00/catalog.html

[Please acknowledge "NOAA CoastWatch/OceanWatch" when you use data from our site and cite the particular dataset DOI as appropriate.]

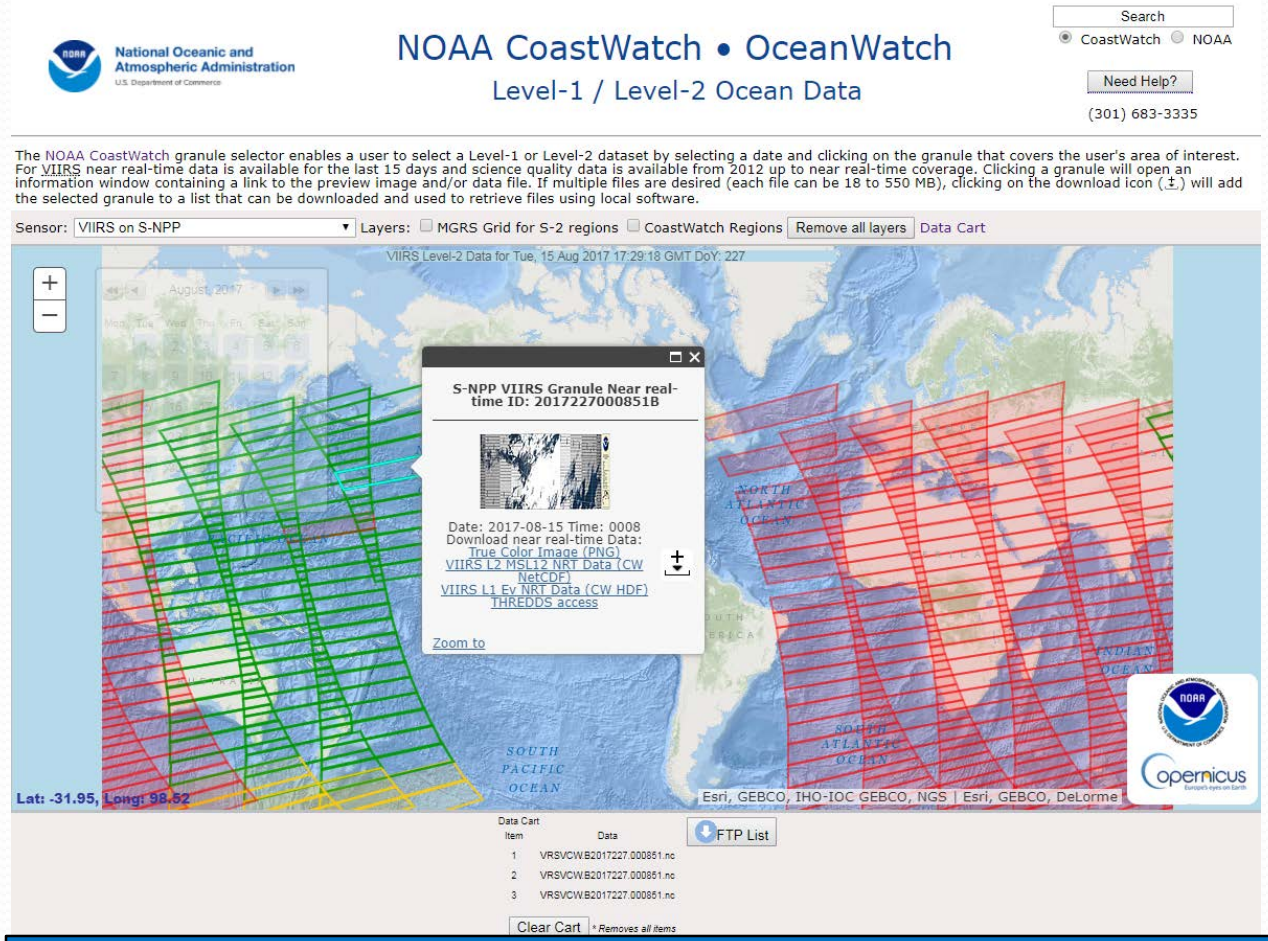
NRT Search





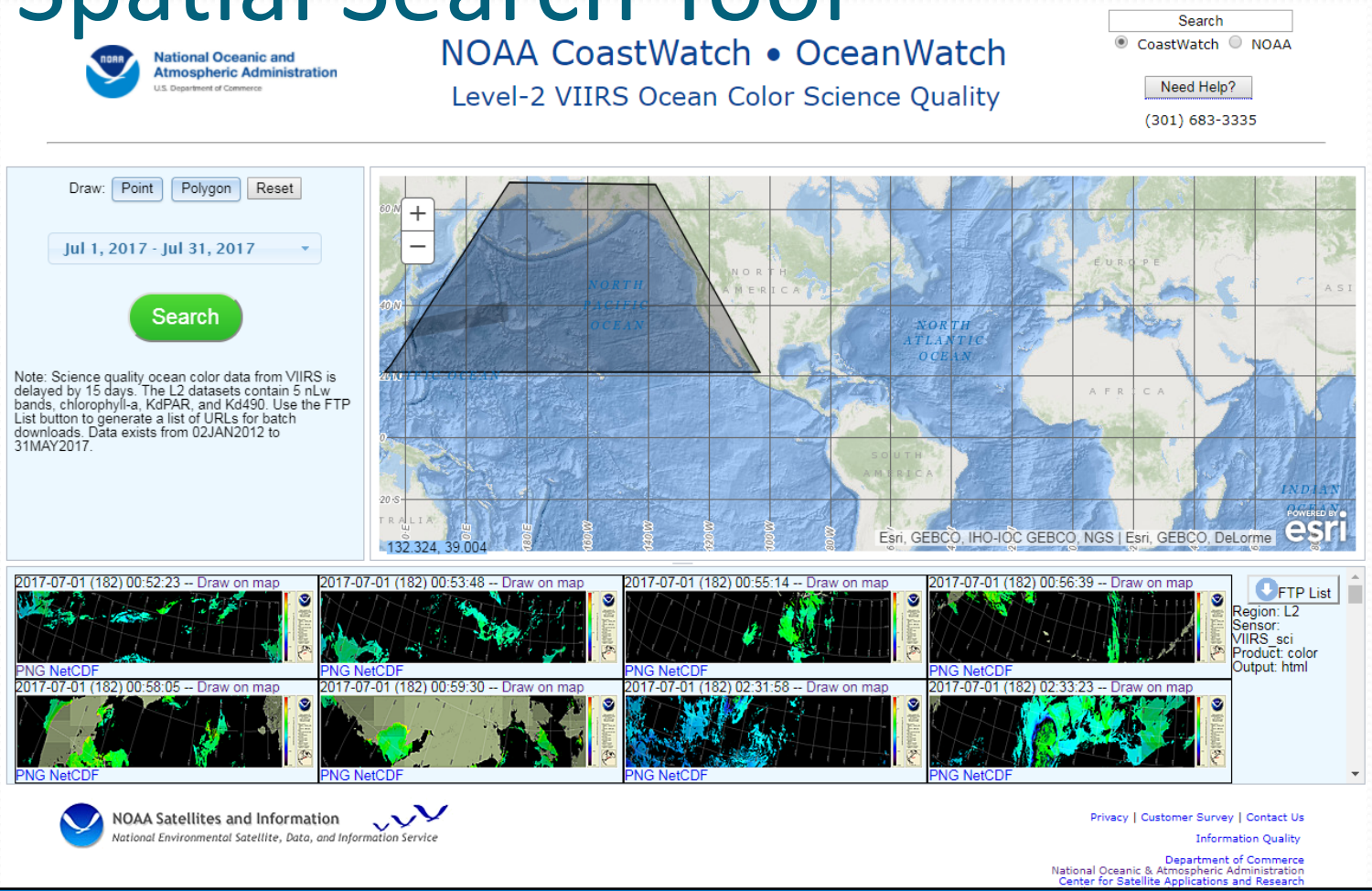
https://coastwatch.noaa.gov/cw_html/NearRealTimeSearch.html

L2 Granule Selector



https://coastwatch.noaa.gov/cwn/cw_granule_selector.html

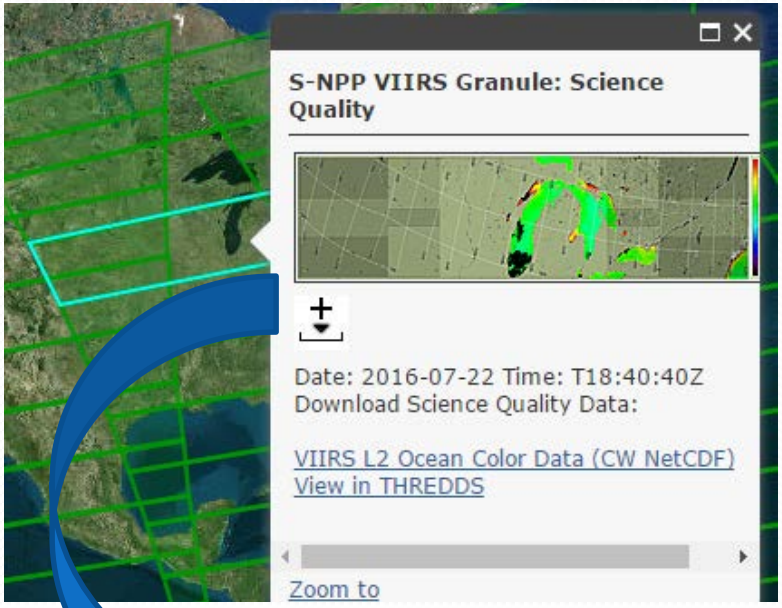
L2 Spatial Search Tool



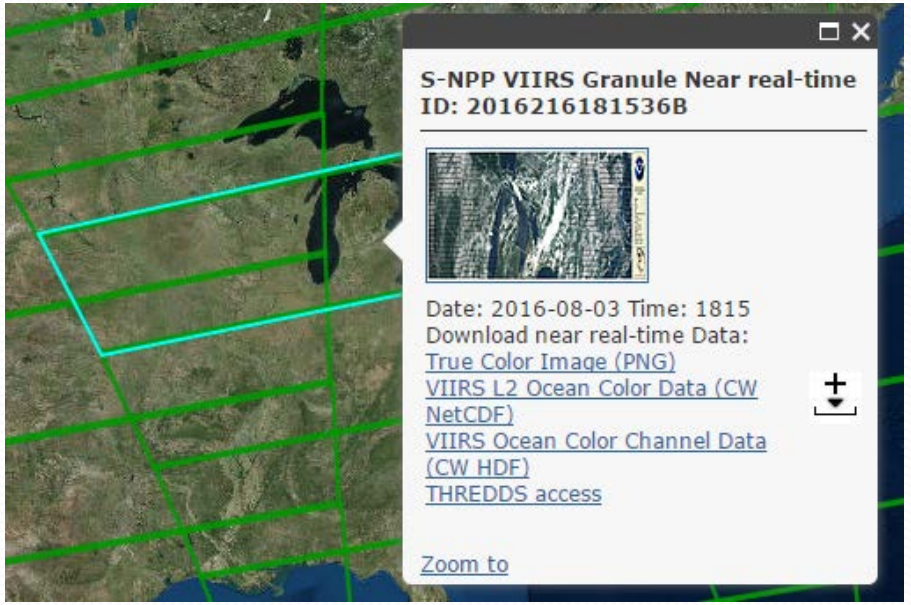
https://coastwatch.noaa.gov/cw_html/cw_polygon_search.html#searchbox

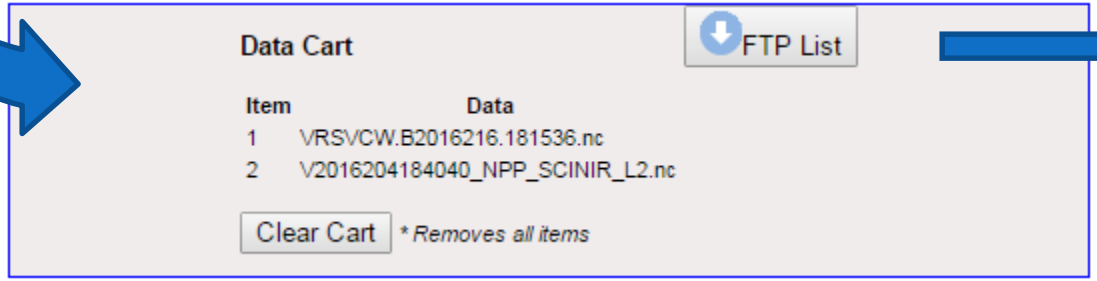
Example of VIIRS Data Cart

Science Quality RAN

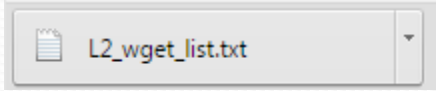


Near real-time





For batch download



Data Stewardship and Long-Term Archive by NCEI

- NOAA CoastWatch/OceanWatch is prepared to deliver ACSPO VIIRS RAN1 GAC data for data stewardship and long-term archiving by NCEI (GHRSST; Tier 1, 2).
- Arrangements between STAR (via CoastWatch) and NCEI are back in progress after some delays.

Sentinel-3A

- A Cooperative Arrangement between the United States and the European Commission and technical arrangements between NOAA and EUMETSAT (and NOAA and ESA for S1 and S2) are all complete.
- EUMETSAT NRT data transfer via terrestrial multicast to NOAA/STAR is now routine. S3 marine data (OLCI, SLSTR and SRAL). CoastWatch is routinely serving OLCI L1b and L2. SLSTR and SRAL will be coming online.
- NOAA CoastWatch/OceanWatch is the primary US data distributor of S3 marine data
- S3 data complement VIIRS SNPP:
  - 300m spatial resolution (vs. 750m)
  - Morning orbit (vs. afternoon)