National Aeronautics and Space Administration

GHRSST-PP

GODAE High Resolution Sea Surface Temperature Pilot Project

http://www.ghrsst-pp.org

GDAC GLOBAL DATA ASSEMBLY CENTER

http://ghrsst.jpl.nasa.gov

MISSION

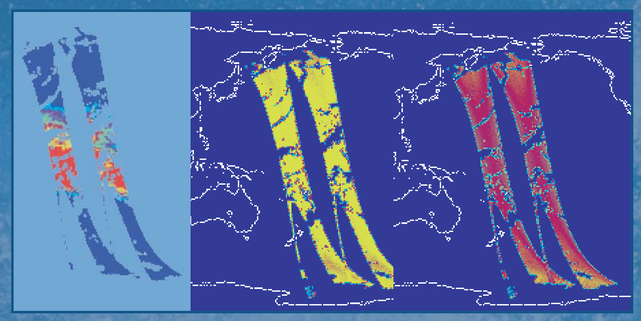
The Global Ocean Data Assimilation Experiment (GODAE) high-resolution sea surface temperature pilot project (GHRSST-PP) provides a new generation of global high-resolution SST data products to the operational oceanographic, meteorological, climate and general scientific community, in near realtime, delayed mode and reanalysis mode.

Every day, GHRSST processing systems produce SST products from several complementary satellite and in situ SST data streams to a common netCDF format. Both integrated observation (L2P) and analysis (L4) products are available.

Data products

SST L2P netCDF with error statistics, time tags, geolocation, confidence flags, ancillary meteorological and sea ice information.

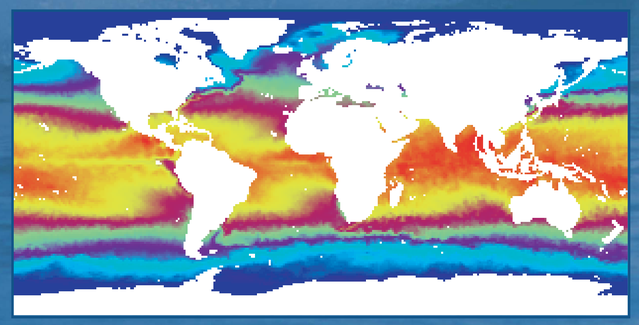
Example:
ascending orbits from AMSRE on Aqua (JAXA)



SST Bias Std Dev

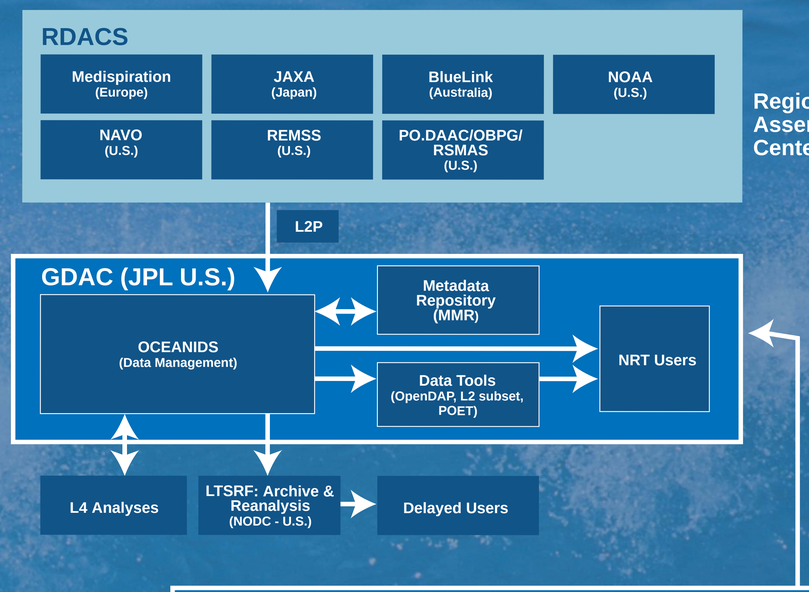
Data products

L4 merged SST netCDF (foundation temperature)



Example:
Global daily 5 km OSTIA SST analysis (UK Met Office)

Regional/Global task sharing for data production, distribution and archiving



Distribution from Global Data Assembly Center (GDAC) at JPL

http://ghrsst.jpl.nasa.gov

GDAC is the core data management node and "clearinghouse" for near realtime data ingestion and distribution, metadata management, and data search and discovery. The **GDAC** supports applications development for decision support, marine resource management and scientific users (e.g., IOOS) through regional merged products and user services.

SST L2P Production from Regional Data Assembly Centers

RDAC	Sensor	Resolution (km)	Region
Medspiration (Europe)	AATSR	1	Global
Medspiration	SEVIRI	6	Atlantic regional
Medspiration	AVHRR-16, -17, -19	2-9 (HRPT and GAC)	Atlantic regional
Medspiration	TMI	25	Atlantic regional
REMSS (US)	AMSRE	25	Global
REMSS	TMI	25	Global
JAXA (Japan)	AMSRE	25	Global
JAXA	MTSAT	6	Pacific regional
NAVO (US)	AVHRR-18	2-9 (LAC and GAC)	Global
JPL/OPBG/RSMAS (US)	MODIS-A, -T	1-4	Global
BlueLink (Australia)	AVHRR-17, -18	1	Indian/Pacific regional
NOAA OSDPD (US)	GOES-11, -12	6	Pacific/Atlantic regional

Future Activities

- Regional merged (<2 km) L4 products
- Ensemble comparisons of L4 products
- Climate data records
- L2 subsetting
- Subscription data deliveries

Reanalysis and Archiving: LTSRF

http://ghrsst.nodc.noaa.gov

The **Longterm Stewardship and Reanalysis Facility (LTSRF)** at the **NOAA NODC** will maintain the historical archive of **GHRSST** products and serves as the reanalysis component for climate data records.

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