

RDAC Update: NOAA/NESDIS/STAR 2

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Current Activities

- Geostationary Sea Surface Temperatures (SSTs)
 - Meteosat-11 – Physical Retrieval Algorithm
 - Meteosat-8 (Indian Ocean)(Meteosat-9 replaced Meteosat-8 in June) Physical Retrieval Algorithm
 - GOES-16 East, GOES-17 West (to be replaced by GOES-18) ACSPO Algorithm, Himawari-8/9
- Reprocessed Geostationary SSTs
 - **1995-2002**
- Operational Geo-Polar Blended SST Analysis
 - Day/Night
 - Night
 - Diurnally Corrected Day/Night. Diurnal Correction is being updated (see Gary Wick's presentation)
- MetOp-C incorporated into all the Geo-Polar Blended SST Analyses
- Reprocessing Blended SSTs
 - 1995-2002
- OISST (Optimum Interpolation Sea Surface Temperature)
 - NCEI and STAR have convened as a joint working group for NESDIS for satellite SST improvements to the OISST product which had degraded. This is a NOAA-centric activity that will leverage GHRSSST activities/infrastructure as many of the team members are active in GHRSSST as well, but ultimately this is about NOAA/NESDIS's vision for SST analysis products moving forward .
- Operational Oceanic Heat Content Products
 - North Atlantic
 - North Pacific
 - South Pacific
- EUMETSAT/NOAA JOINT SCIENCE AGREEMENT (2020-2024)
 - Joint Product Development
 - Calibration/Validation Activities of Sea-Surface Temperature (SST), High Latitude (Arctic SST Analysis) and Lake-Surface Water Temperature

Work in Progress

EUMETSAT-STAR Science Cooperation Plan

- **Generate Arctic Specific SST Analysis**
- **Generate Lake Water Temperatures**
- **Calibration/Validation Activities with SLSTR**

Diurnally Adjusted Geo-Polar Blended SST

- Diurnal Warming Model
 - Being shared with EUMETSAT
 - Modeled warmings to be included as part of Matchup Database (MDB)
 - New parameterizations being incorporated into the model
- Blended SSTs
 - New bias correction development using Sentinel-3 A&B SLSTR, VIIRS nighttime & in situ
 - Blended ~1-km Regions
 - Moving the “Legacy” L2 SST and the L4 Blended SST products to the NOAA Cloud
- Oceanic Heat Content (OHC)
 - Incorporate Sentinel 6A Data into the NOAA/NESDIS operational OHC Products (N. Atlantic, N. Pacific, and S. Pacific)
 - Developing New Improved OHC Algorithm
 - Increase OHC product resolution from 25-km to 5-km
 - Legacy OHC products migrating to the NOAA Cloud
- Moving the “Legacy” L2 SST and the L4 Blended SST products to the NOAA Cloud