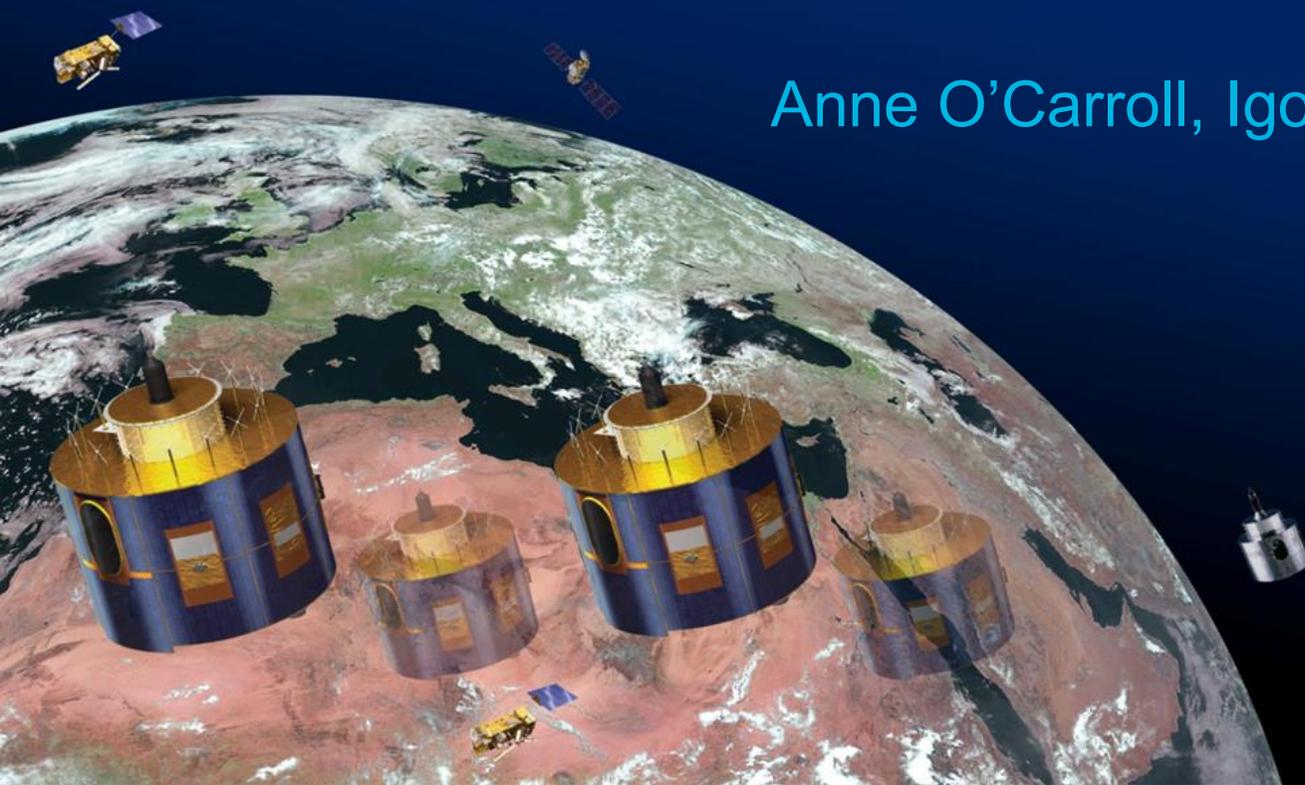


EUMETSAT report for GHRSSST

Anne O'Carroll, Igor Tomažić, Prasanjit Dash
GHRSSST XVII,
Washington DC,
6-10 June 2016



Oceanography at EUMETSAT

Sea Surface
Temperature

Sea surface winds

Sea-ice products

Radiative fluxes

Significant wave
height

Sea surface
topography



Sea-ice ST/MIZT

Ocean Colour products

Turbidity

Aerosol optical depth over
water

The EUMETSAT
Network of
Satellite Application
Facilities



- Operational data provider
- Weather, climate, ocean, atmospheric composition
- Mandatory, Optional and Third party programmes
- EUMETSAT Ocean and Sea Ice Satellite Application Facility

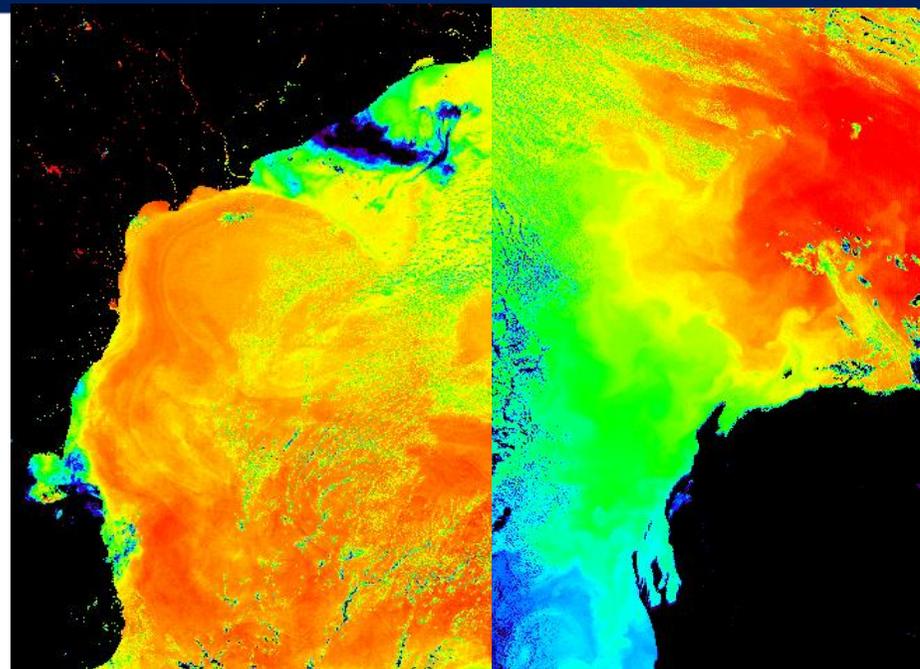
Sea Surface Temperature missions

- Most recent launches:
 - Copernicus Sentinel-3A (16th Feb 2016)
 - MSG-4 (15th July 2015)
 - Metop-B (17th Sept 2012)
- Future:
 - Copernicus Sentinel-3B: ~Autumn 2017
 - Metop-C (AVHRR, IASI): ~ October 2018
 - MTG-I1 (FCI): ~ Q3 2020
 - Metop-SG A (MetImage, IAS): ~ June 2021
 - MTG-S1 (IRS): ~2022
- Considerations for Meteosat-8 Indian Ocean Data Coverage (IODC) Services are planned to be available from January 2017 onwards following a period of parallel operations with Meteosat-7 from Oct 2016 to mid Jan 2017.

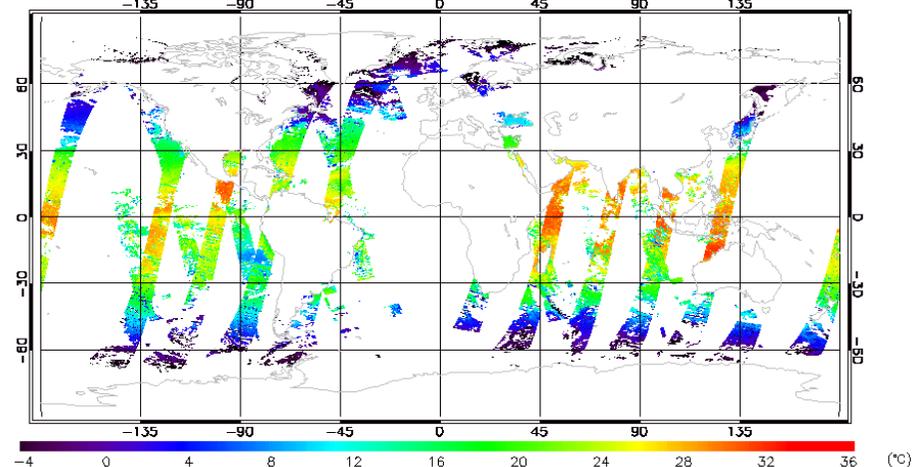


Sentinel-3 SLSTR (launched 16 February 2016)

- Visible channels 2/3; infrared 23/3.
 - Commissioning activities continue with in-orbit review - July 2016.
 - SLSTR data to Cal/Val team imminent.
 - Participation to S3 Validation Team still open (<https://earth.esa.int/aos/S3VT>).
 - Evolutions on inclusion of Bayesian cloud screening and new S3 products (AOD over sea/land and FRP) ongoing.
- > Posters 6, 9, 34, 49, 50 for EUM and ESA posters related to Sentinel-3 (mission, operations / data access, products, evolutions, Cal/Val).

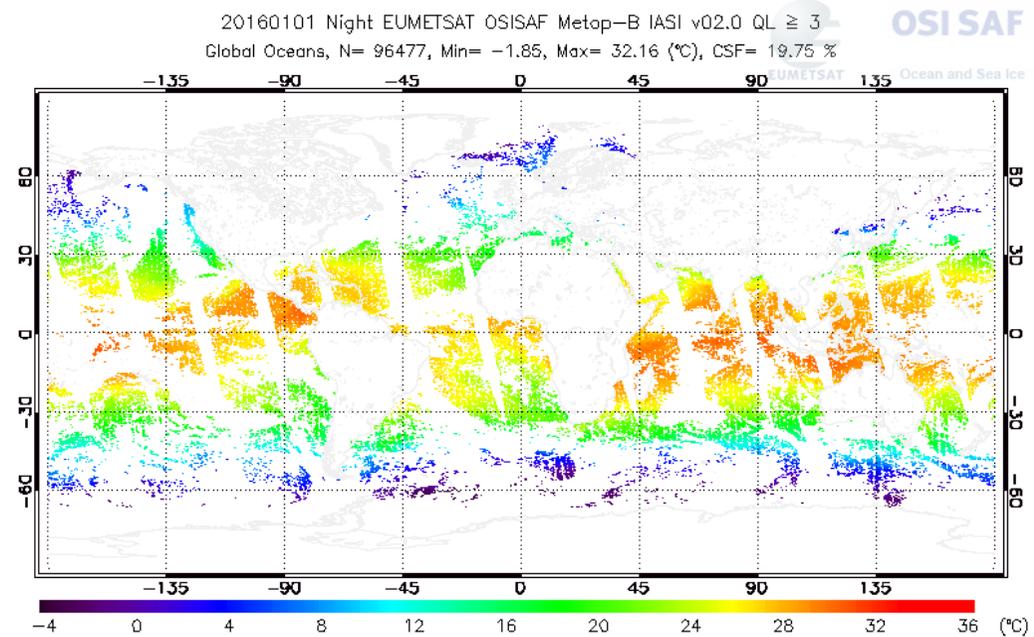
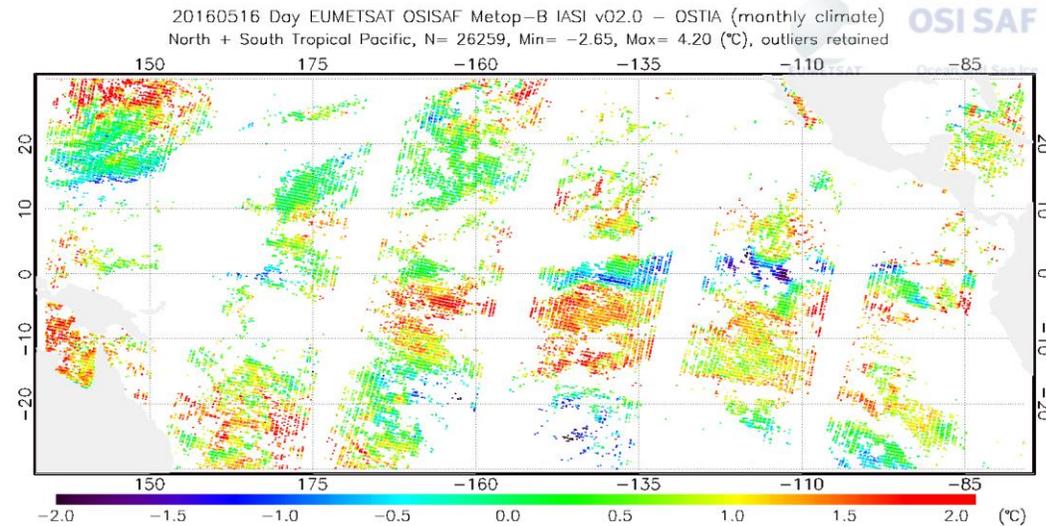


20160422 Day+Night EUMETSAT WCT N2 Sentinel-3A SLSTR MAR_0_NR_001 Global (Ocean + Inland Water)



IASI Sea Surface Temperature

- OSI SAF IASI SST operational
 - v6.2 of IASI L2 processor June 2016 (no SST impact)
 - v6.3 planned ~January 2017 to include SST retrieval update (greater number of clear obs; aerosol flagging/correction; uncertainties)
- > **Poster 35** for recent updates, validation results, comparisons with SQUAM



- Project on Improved Drifting Buoy Sea Surface Temperature for Copernicus Satellite Validation (HRSST-2) due to start this summer – ITT currently out
- Provide measurements from a significant number of drifting buoys equipped with digital SST probes in order to achieve a better calibrated capability.

“Assess and establish the benefit of improved incremental capability of drifting buoys for satellite SST validation”

- Assessment through Sentinel-3 SST Cal/Val activities.
- Continuing DBCP coordination.
- Data availability through GTS.

-> In coordination with the ESA project on FRM4STS including a study of the SI traceability of historical and current drifter SST measurement, leading to the development of new best-practice guidelines (David Meldrum, Craig Donlon) -> [Poster 31](#)



Sea-ice Surface Temperature

- SLSTR: Sea-ice surface temperature
 - Cloud-screening (2016)
 - Project began in May 2016 (running for 6 months) to provide algorithm and auxiliary LUT / PDFs for SLSTR cloud-screening over sea-ice
 - Retrieval and validation (2017) – ITT late 2016
 - Implementation (2018/2019)
- IASI: Ice Surface Temperature
 - Assessment of in situ dataset and validation of current L2 retrieval. Towards an IST product from IASI. KO July 2016.



Data delivery

- Level-1 from EUMETSAT data centre (www.eumetsat.int).
- EUMETSAT OSI SAF for Level-2 products (www.osi-saf.org) & EUMETCast.
- IASI SST operational full L2P GDS2 (28th May 2015), switch to Metop-B from 23rd Feb 2016. Available from OSI-SAF and EUMETCast.
- Metop-A and Metop-B L2Pcore IASI SST remain available from EUMETSAT data centre.
- Copernicus Sentinel-3 marine data from EUMETSAT data centre & EUMETCast.
- Sentinel-3 EUMETCast Terrestrial services to NOAA-STAR and Australia (NCI).
- Sentinel-3 data availability from summer 2016 (L1 and ramp-up of L2 to full operations).

USER SERVICES CLIENT

SEARCH AND ORDER | SELECT PRODUCT > FILTER > DATE/TIME > ROI > FORMAT > DELIVERY METHOD > CHECK OUT

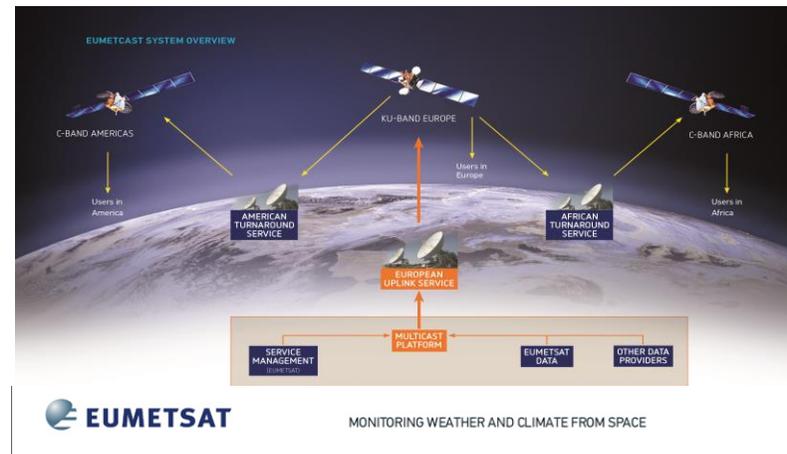
ORDER STATUS
HELP
FEEDBACK
MY PROFILE
LOGOUT
KNOWN ISSUES

SELECT PRODUCT

Search Term

Products | Sentinel 3 DataSets

- SST Arctic(NRT)
- SST Arctic(NTC)
- SST Baltic(NRT)
- SST Baltic(NTC)
- SST Black Sea(NRT)
- SST Black Sea(NTC)
- SST Global(NRT)
- SST Global(NTC)
- SST Mediterranean(NRT)
- SST Mediterranean(NTC)
- SST North Atlantic(NRT)
- SST North Atlantic(NTC)



PRODUCT NAVIGATOR

SEARCH | List of results

SIMPLE SEARCH | 1 2 3 4 | Back to query

EXTENDED SEARCH

BROWSE BY THEME

SETTINGS

HELP

FEEDBACK

RESET

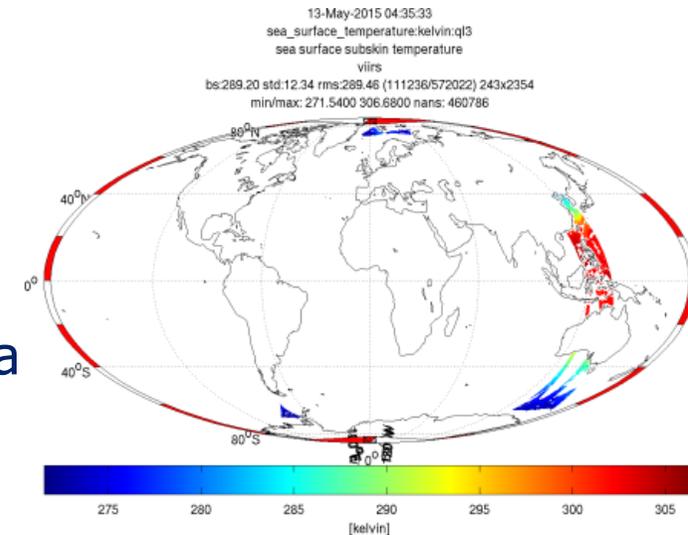
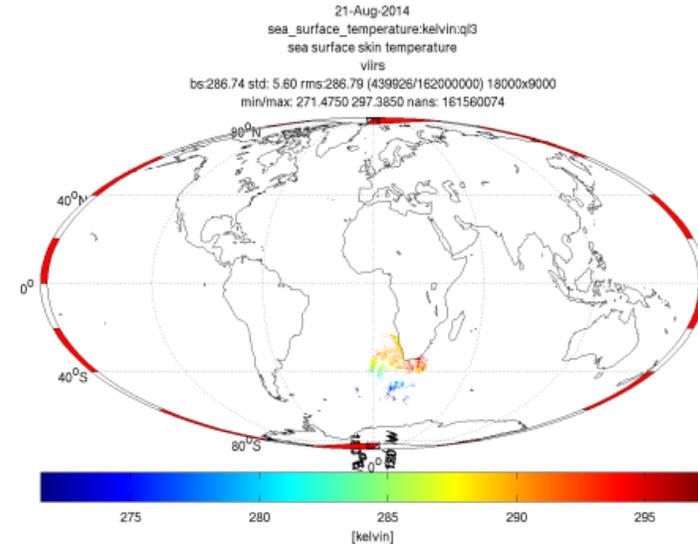
Dataset

- Atlantic High Latitude Sea Surface Temperature - Multimission
Calculation of underskin temperature (°C) with multispectral algorithm. The product covers the Atl...
- Atlantic Sea Surface Temperature - Multimission
Estimation of Subskin SST (comparable to in situ measurements at night) derived from geostationary skin SST : by day and by night the subskin SST is ...
- Atlantic Sea Surface Temperature at Low and Mid Latitudes - Multimission
Estimation of Subskin SST (comparable to in situ measurements at night) derived from the geost...

Data delivery – SST third party data

Third party data re-distribution (NOAA, JAXA, ISRO, NSOAS, SOA...):

- S-NPP VIIRS ACSP0 operational service through EUMETCast since 2014. This was updated from an L2P to L3U service.
- GCOM W2 AMSR2 GHRSSST L2P Operational NRT L2P service to EUMETSAT member states from 19th May 2015.
- An INSAT-3D service (L1C image data and L2B SST in hdf) with dissemination of data via EUMETCast began on 22 September 2015 and the service has been running nominally since then.
- Receiving continuous data stream of HY-2a non-SST data
The availability of SST data from NSOAS is under discussion.



For earth observation data providers to make collections searchable through common standards.

Development activities ongoing at EUMETSAT towards CWIC to test the system.

The way forward to be discussed by the EUMETSAT Council in summer 2016. However, in the meantime the following datasets are being included:

- OSI SAF hourly GOES SST
- OSI SAF hourly MSG SST
- OSI SAF multi mission NAR SST
- OSI SAF global Metop AVHRR SST
- OSI SAF multi mission Atlantic SST
- OSI SAF IASI SST
- Sentinel-3 SLSTR SST

CWIC

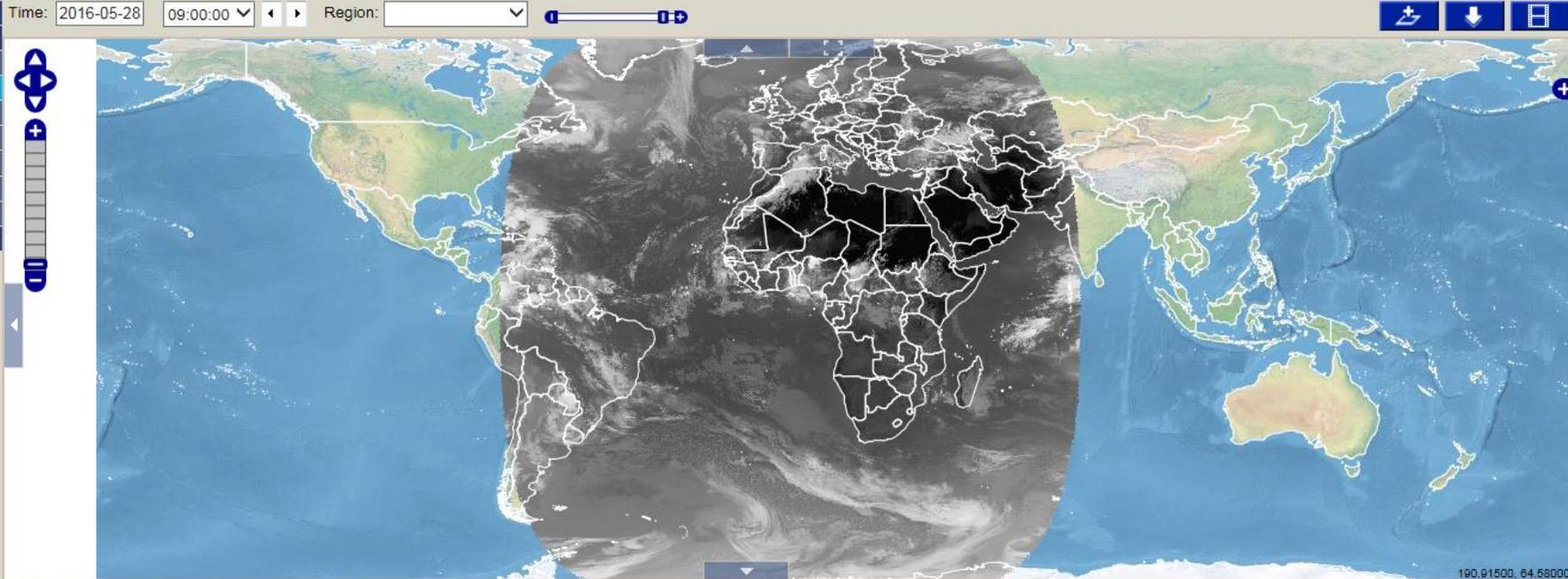
The CEOS WGISS Integrated Catalog

The CWIC Project provides the world's satellite Earth observation data providers with a way to make their data collections searchable using common standards. This webpage provides technical resources for potential CWIC data partners and clients. For more general information about CWIC or how to get involved, please contact Yonsook Enloe or Ken McDonald.

Watch this video to learn how information in the International Directory Network (IDN) is used with CWIC to help users identify and access satellite data of interest.

Note: The CWIC Project originated as the WADC Project.

- METEOSAT IODC
- METEOSAT 0 DEGREE
- IMAGERY
 - IR 10.8
 - IR 03.9
 - VIS 006
 - WV 062
- VISUALISED PRODUCTS
- RGB COMPOSITES
- METOP



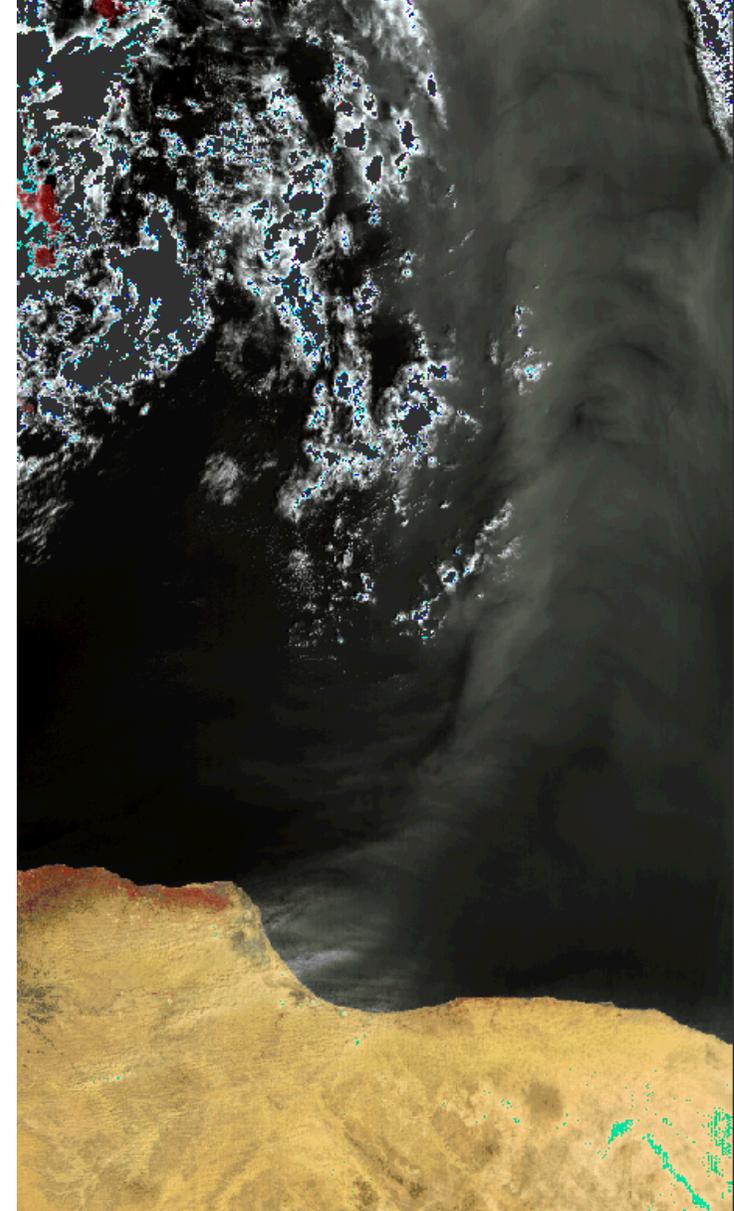
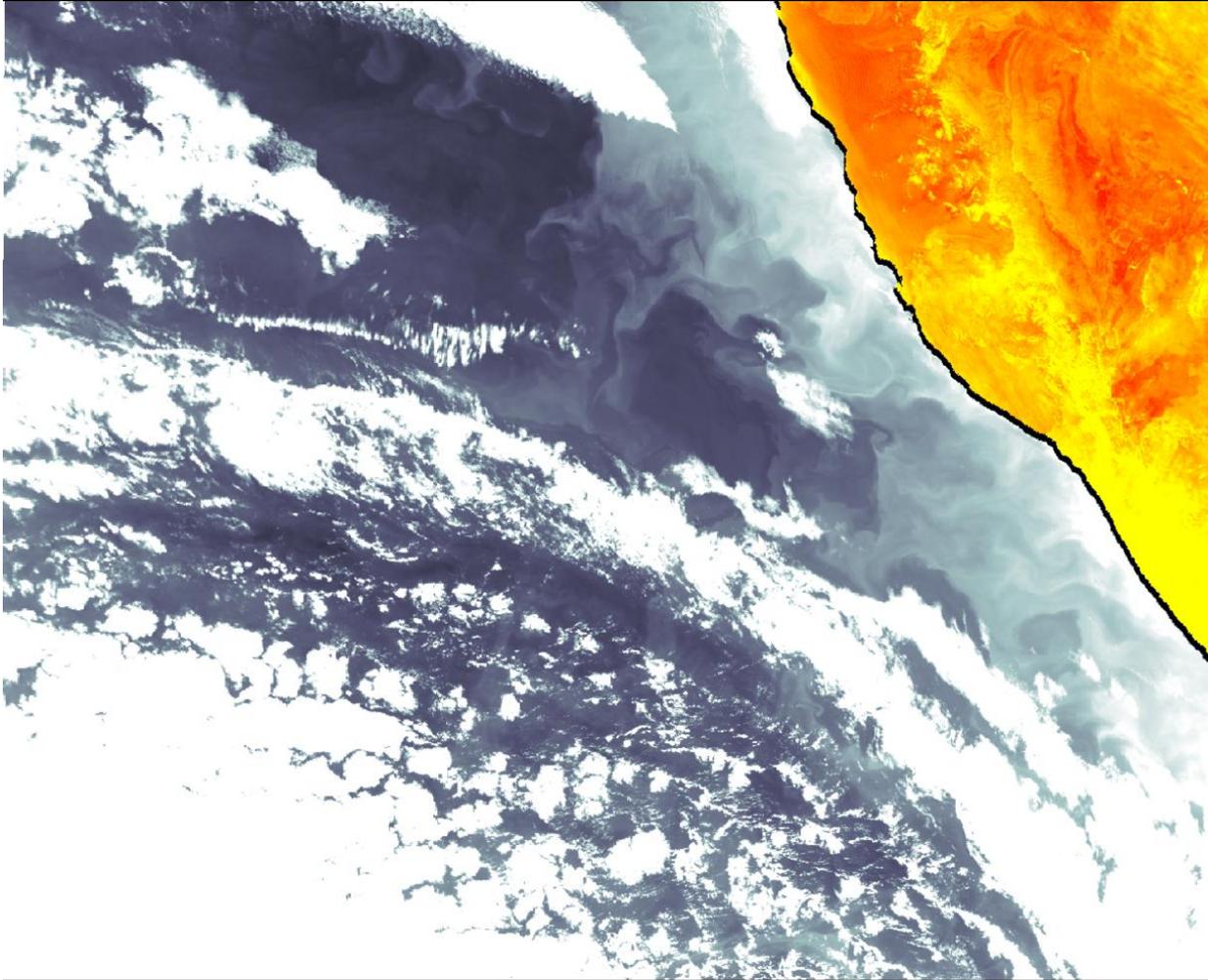
HIGH RATE SEVIRI LEVEL 1.5 IMAGE DATA - MSG - 0 DEGREE

Rectified (level 1.5) Meteosat SEVIRI image data. The data is transmitted as High Rate transmissions in 12 spectral channels. Level 1.5 image data corresponds to the geolocated and radiometrically pre-processed image data, ready for further processing, e.g. the extraction of meteorological products. Any spacecraft specific effects have been removed, and in particular, linearisation and equalisation of the image radiometry has been performed for all SEVIRI channels. The on-board blackbody data has been processed. Both radiometric and geometric quality control information is included.

<http://eumetview.eumetsat.int/mapviewer>

Sentinel-3 RBT and Sea Surface Temperature to be included soon

SLSTR first infrared (23rd March 2016)



Thank you