



EUMETSAT's means and plans for ocean colour data

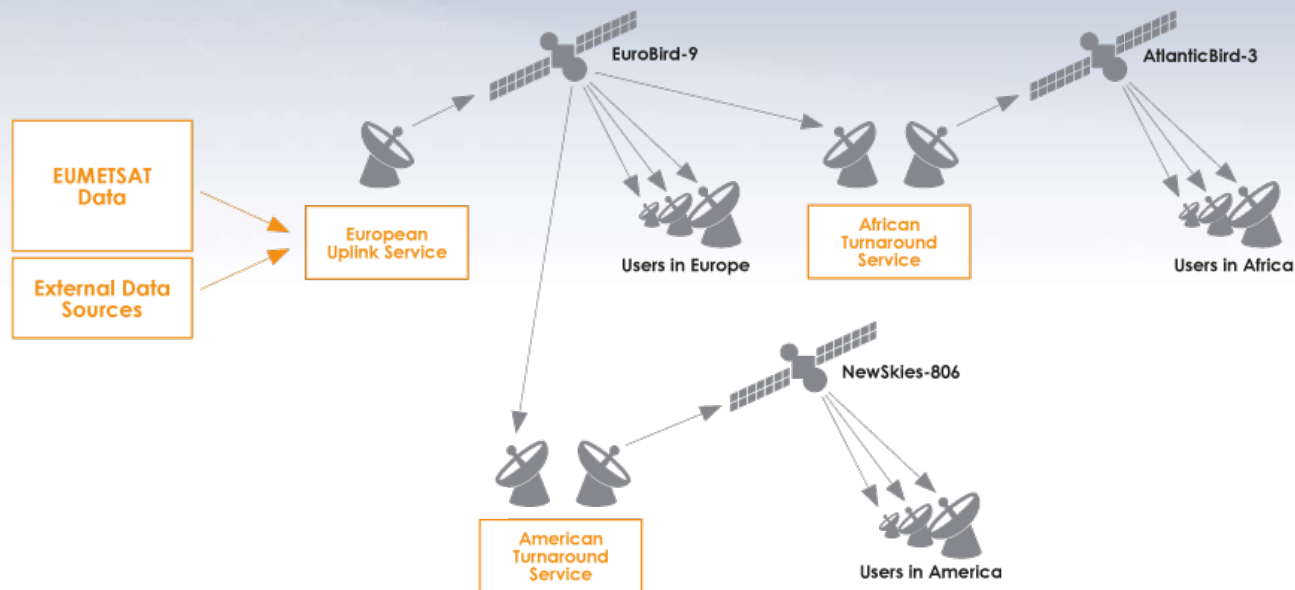
Thomas Heinemann
EUMETSAT



Overview

- EUMETCast System
- EUMETCast User Community
- Products on EUMETCast
- Product Navigator - find out more detail on available products
- Ocean colour (and related) data distribution by EUMETSAT

EUMETCast Data Delivery



EUMETCast Status end June 2012:

- 37 Data Providers
- 276 Different Data Collections
- 100 GB data disseminated per day

Key Features:

Off-the-shelf, commercially available DVB reception components

One-stop-shop many data streams via one station

Secure delivery – multicast to a specific user, or group of users

Handling many file formats, high and low volume data and supporting high-timeliness delivery requirements

Worldwide coverage through GEONETCast partnership

Reception Station Equipment



Antenna



PC(s)



Software



EKU



DVB Router



DVB PCI Card

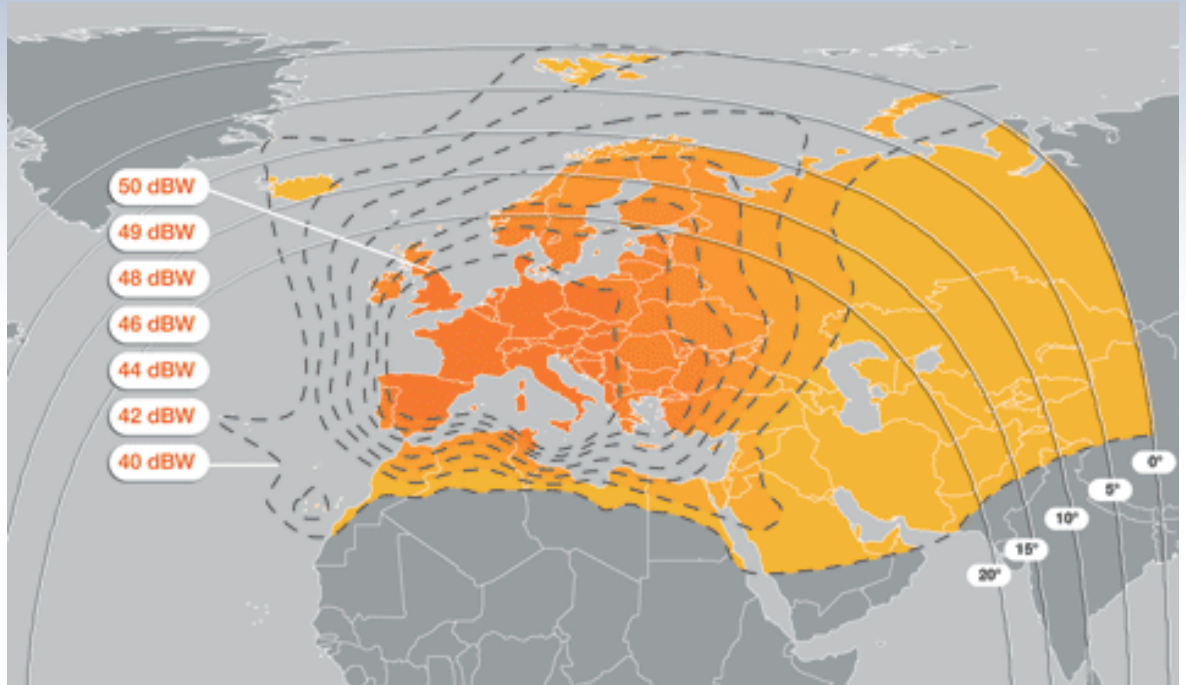


DVB USB

Overview - footprints

EUMETCast Europe

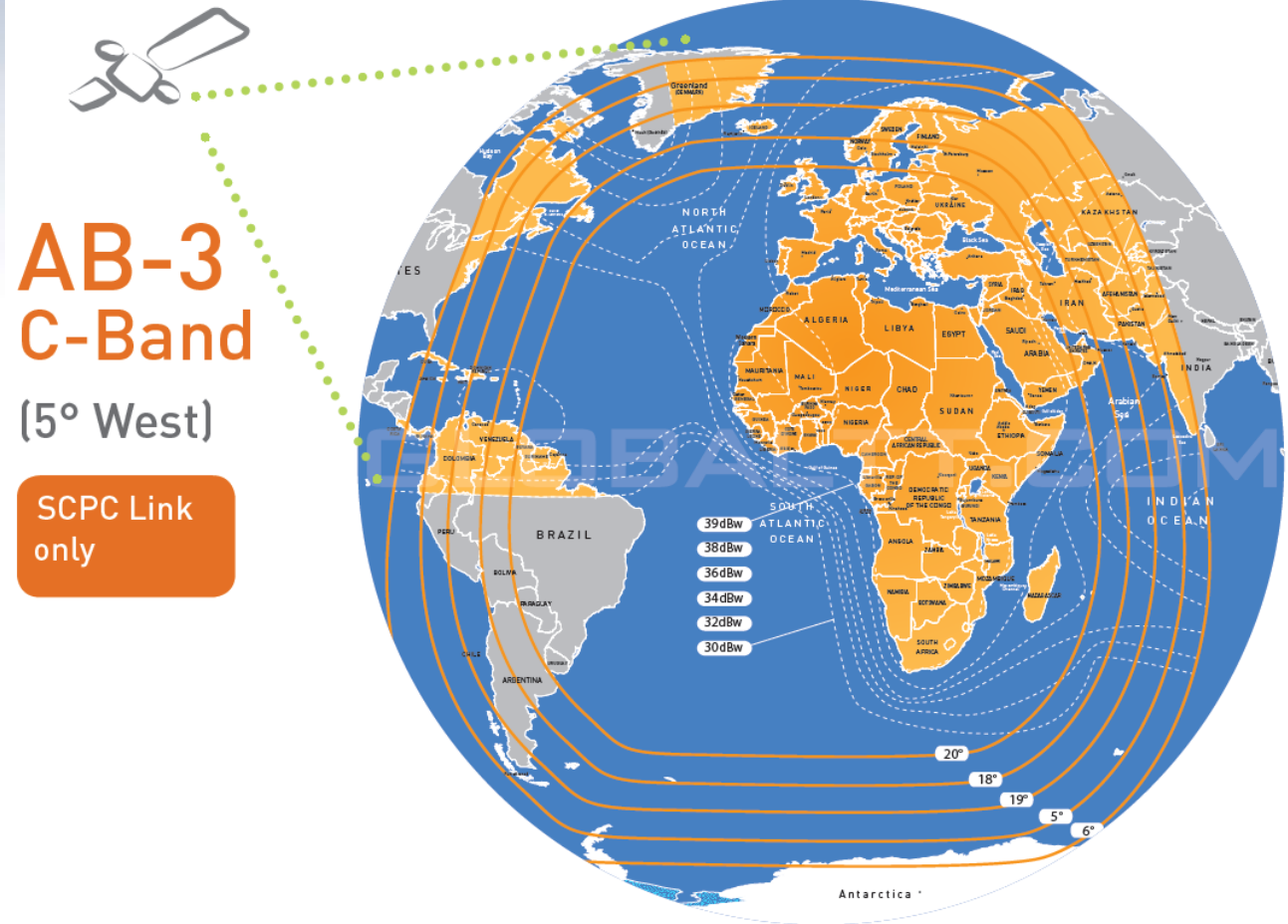
- EuroBird 9A
- Eutelsat
- Ku-band
- Position: 9° East
- Launched: 03/06



Overview - footprints

EUMETCast Africa

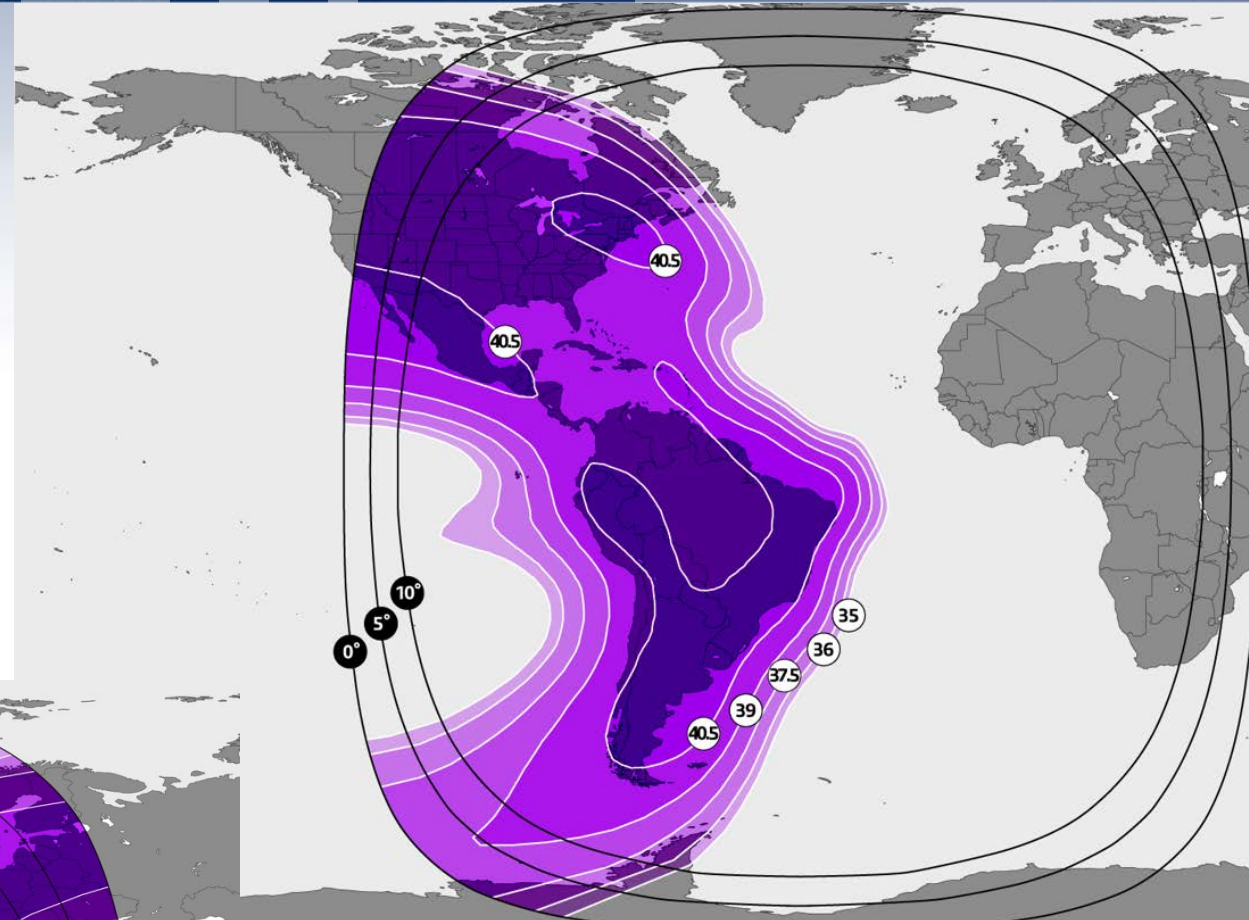
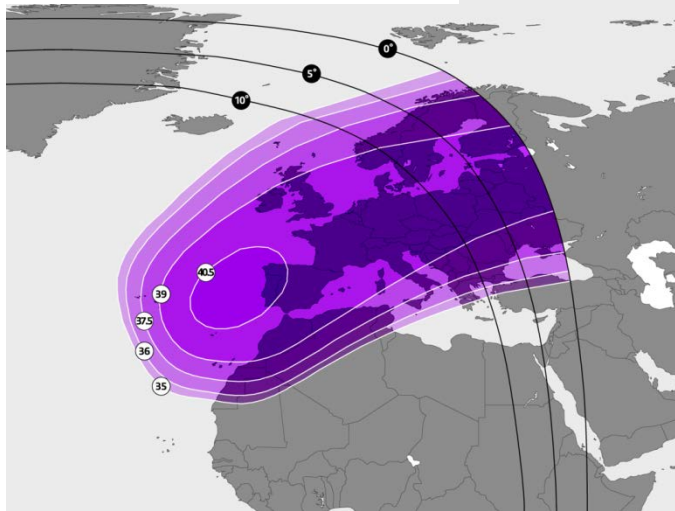
- Atlantic Bird 3
- Eutelsat
- C-band
- Position: 5° West
- Launched: 07/02



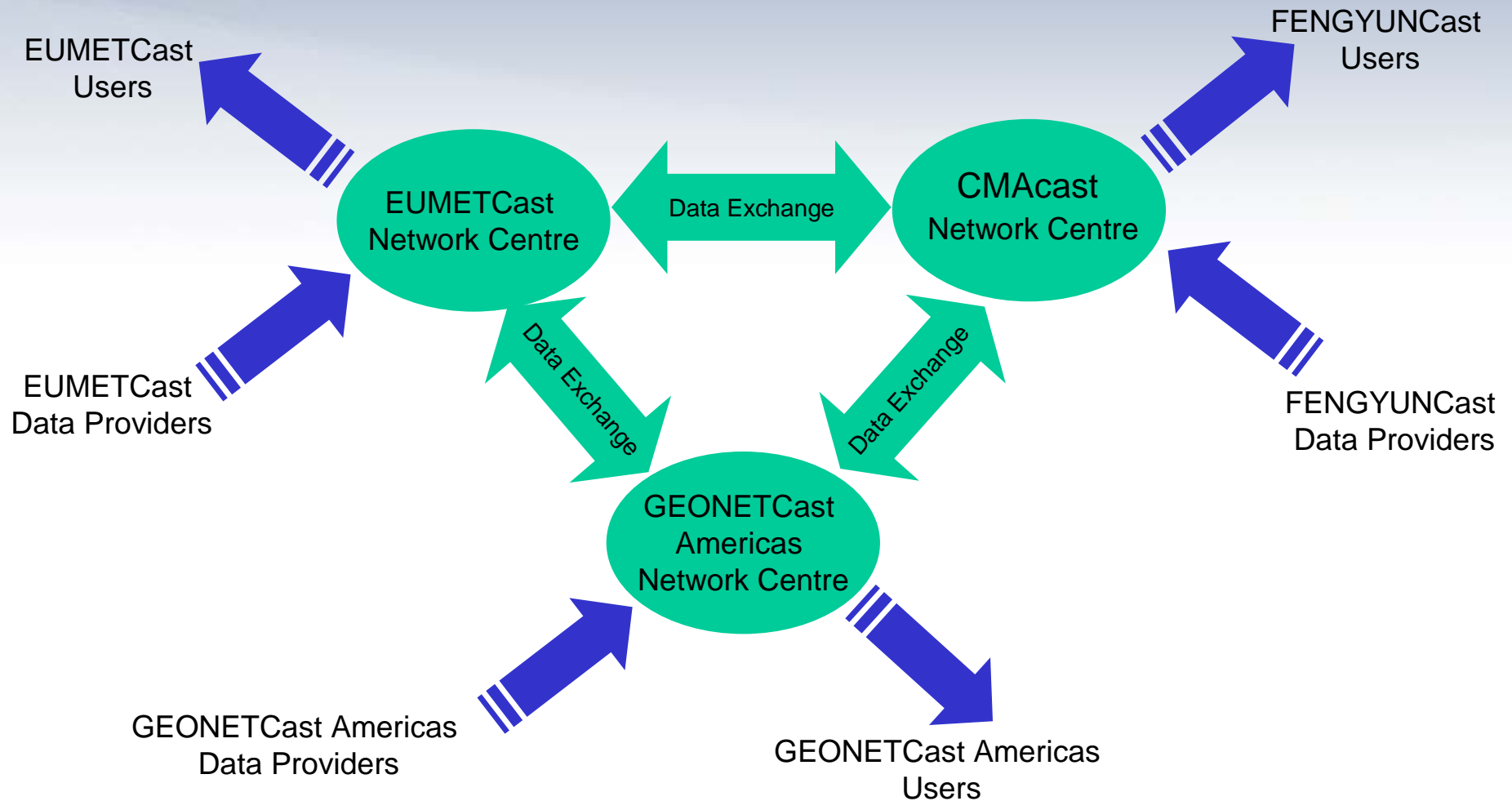
Overview - footprints

EUMETCast Americas

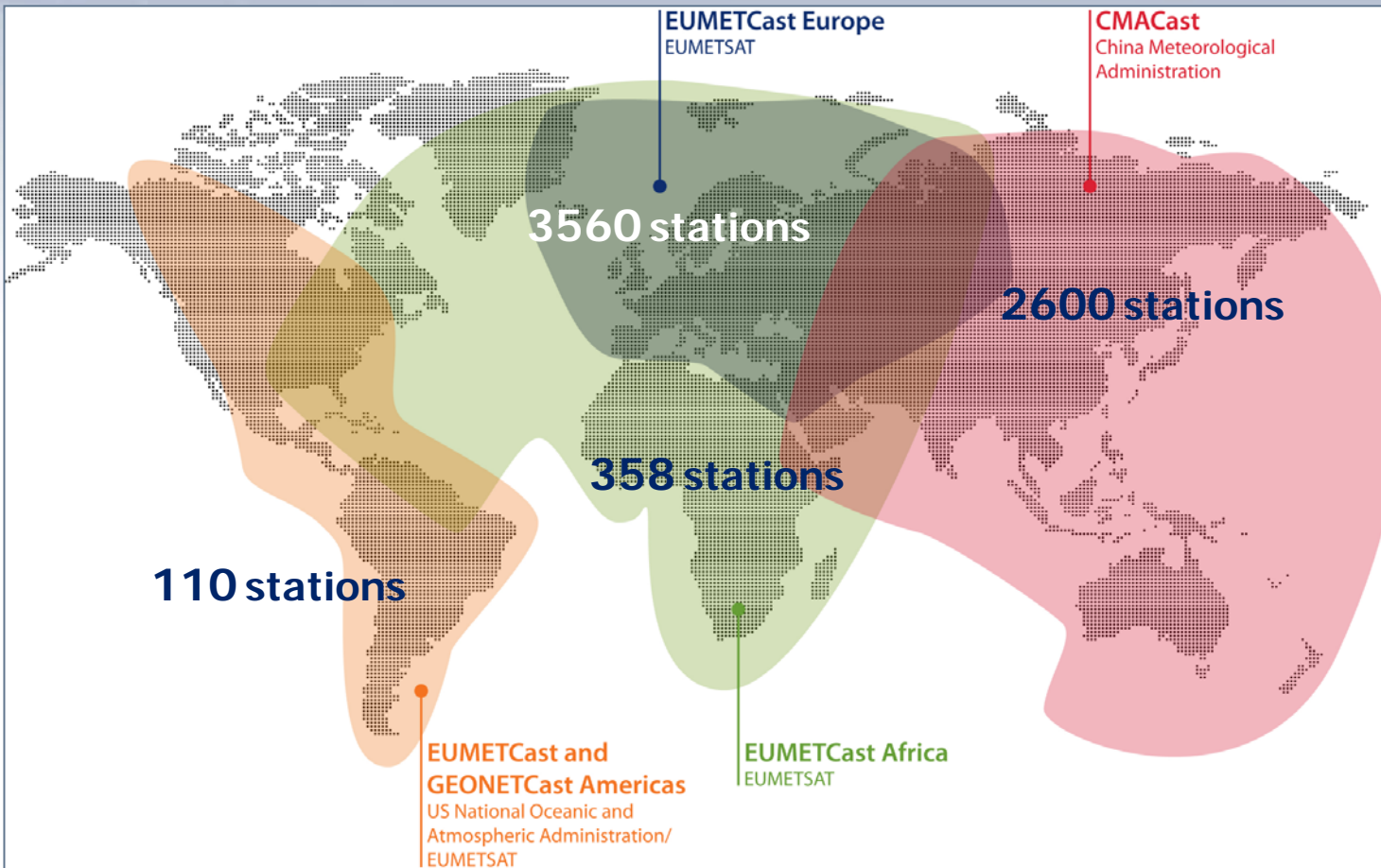
- NSS806
- SES World Skies
- C-band
- Position: 40.5° West
- Launched: 02/98



GEONETCAST



GEONETCast Global Data Service



EUMETCast is the European component of the GEONETCast initiative.

GEONETCast provides environmental data exchange and data delivery in Europe, Africa and the Americas.

Projects including the AMESD and MESA projects, developed in collaboration with the African Regional Economic Communities, the African Union and the European Commission (EC), the DAWBEE project and a number of FP7 projects are supporting the use of GEONETCast.

June 2012

EUMETCast Data and Products

Services available on EUMETCast

EUMETSAT Satellite Data – Meteosat / Metop / Jason-2

Third Party Satellite Data – GOES, NOAA, NPP & MODIS (USA) / MT-SAT (Japan) / FY2 & FY3 (China)

Numerous Third Party Satellite Products

In-situ / observational data

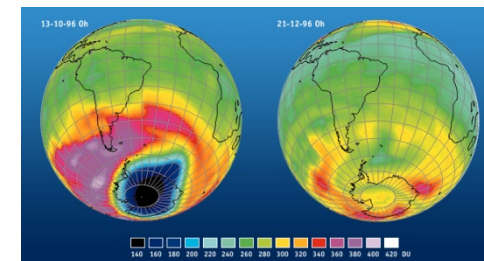
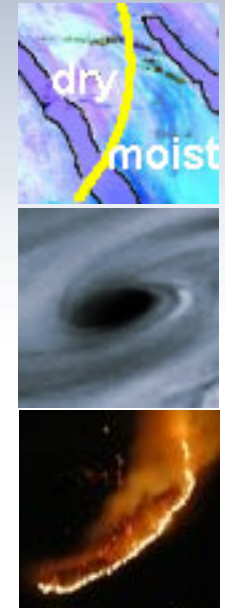
Numerical Weather Forecasts & Analysis Data

Products per application:

Atmosphere – 195

Marine – 88

Land – 138



June 2012

EUM/OPS/VWG/12/2968

Issue 1

24 August 2012



Product Navigator – Data discovery at your fingertips

EUMETSAT PRODUCT NAVIGATOR
Collection Discovery Service

Search
▶ Simple search
▶ Extended search
▶ Browse by theme
▶ Settings
▶ Help
▶ Feedback
▶ Reset

Metadata details
← Back to result page

Dataset
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, ...

Description | **Categorisation** | Distribution | Metadata

Description
Collection Reference: EO:EUM:DAT:MSG:HRSEVIRI
Collection Name: High Rate SEVIRI Level 1.5 Image Data - MSG - 0 degree
Acronym: HRSEVIRI, MSG15
Description: 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.

Product Status: Operational
Date: creation: 2009-03-23
revision: 2010-09-21

Time Range:
Begin: -
End: -

Geographic Bounding Box:
West Bound Longitude: -79.0
East Bound Longitude: 79.0
North Bound Latitude: 81.0
South Bound Latitude: -81.0

Point of Contact:
Role: originator
Originating Centre: European Organisation for the Exploitation of Meteorological Satellites
Short name: EUMETSAT
URL: <http://www.eumetsat.int>
Telephone: +49(0)6151-807 366/377
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Country: Germany
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European Organisation for the Exploitation of Meteorological Satellites

Key Features:

Product Navigator provides metadata descriptions, data provider and data access information.

Includes all EUMETSAT products and third-party products on EUMETCast.

Uses open standards (e.g. OGC, Inspire) for catalogue interoperability with other organisations.

<http://navigator.eumetsat.int>

Operational Data

- High availability (>95+x% of scheduled products)
- Maturity/Stability (algorithm should not change too often, changes need to be announced well in advance and agreed with users, reprocessing)
- Reliability (data shall be provided for the foreseeable future, funding)
- Reproducible results (same input, same algorithm => same output)
- Monitoring and Control functionality (24/365 service)
- Maintainability (well described algorithm, readable and documented software)
- Automated quality control / Quality indicators are mandatory
- Regular *manual* quality control
- Configuration Control (which product was produced with
which algorithm version and which parameters/auxiliary data)

Ocean colour related data dissemination by EUMETSAT

Instrument /Satellite	L1 or SDR	L2 or EDR
MODIS / Terra	EUMETCast dissemination	Chlorophyll-a maps EUMETCast dissemination
VIIRS / Suomi-NPP	Regional service planned on EUMETCast Q3/2013	User requirement evaluation ongoing
MERSI / FY3 (A+B)	Negotiations with CMA	User consultations ongoing
OCM / Oceansat-2 (3)	Negotiations with ISRO ongoing	User consultations ongoing
OLCI / Sentinel 3	Dissemination planned	Dissemination planned
SGLI / GCOM-C1	?	?

Conclusion

- EUMETCast an effective mechanism for the (NRT) dissemination of satellite data.
- Clear user requirements are a prerequisite for the definition of a data dissemination service.
- The high data volume of ocean colour data enforce a trade-off between data requirements, timeliness, and costs.