

# Status of EUMETSAT Operational Services & EUMETCast Africa Dissemination Baseline Updates

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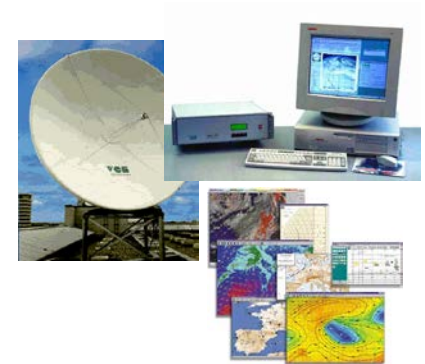
- EUMETCast Overview
- New EUMETCast Africa service in 2018
- Dissemination updates since 7<sup>th</sup> meeting
- Meteosat satellite swap in Q1/2018
- Meteosat geo-reference update Dec 2018
- Other service updates from EUMETSAT

# EUMETCast Overview

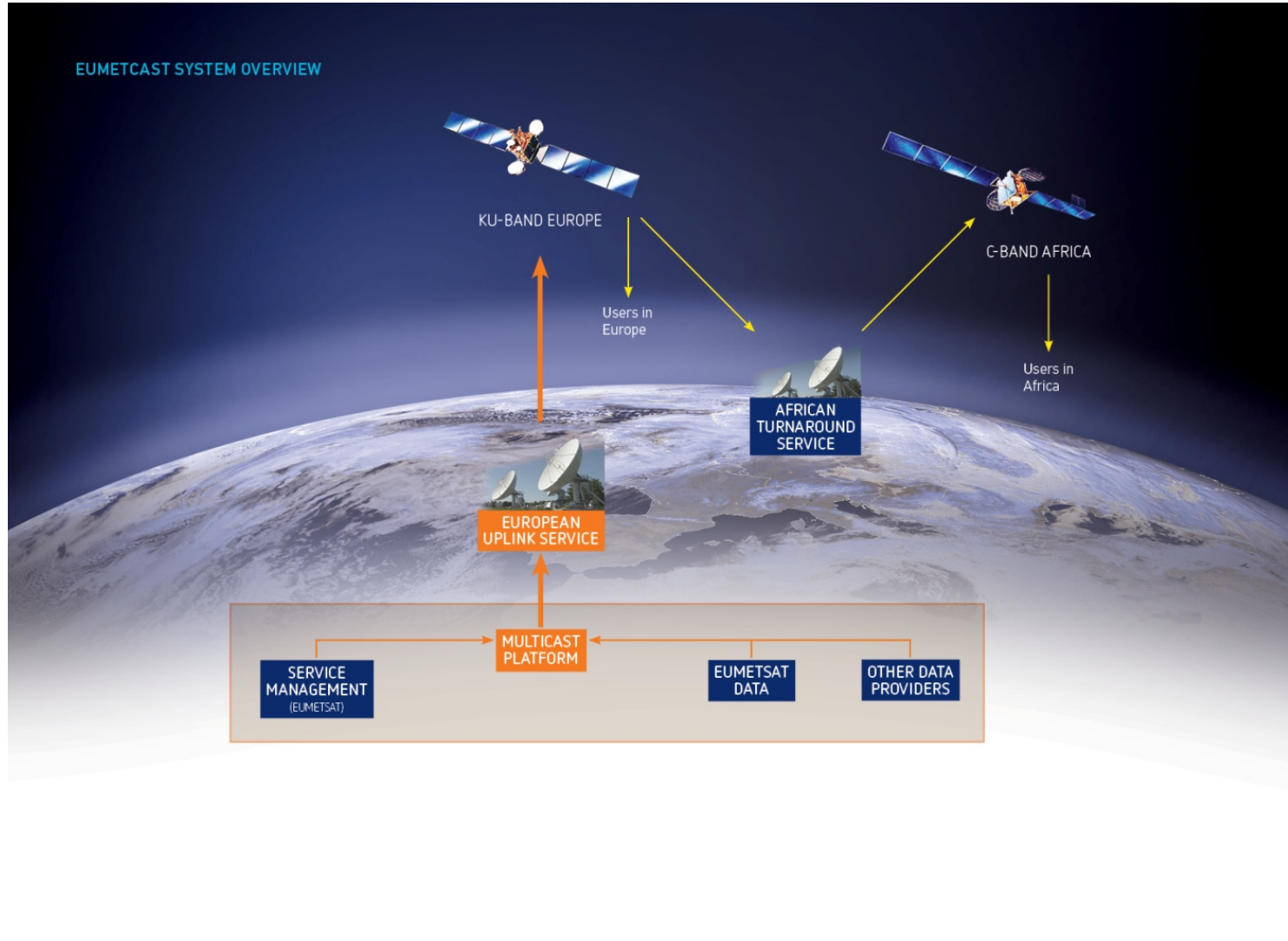
EUMETSAT's integrated dissemination system for environmental data

Key Features:

- Targeting a wide audience (Europe & Africa)
- Secure delivery of data files to targeted audience
- Scalable to cover large and small volumes of data
- Low cost, user-friendly satellite receiving equipment
- Delivers a wide range of earth observation data/products
- European component of GEOSS - GEONETCast



# EUMETCast principles – Satellite (now)



# Service Channel Overview

- Data Channels
  - 10 EUMETSAT GEO satellite data and generic Channels,
  - 3 LEO satellite data Channels
  - 5 Information Channels (UNS message, training, www pages)
  - 1 Alert Channel
  - 1 Disaster Channel
  - 2 EUMETSAT SAF Channels
  - 7 External Data Channels (Third-Party data)
  - Contents of the data streams are continually growing.

# New EUMETCast Africa Service

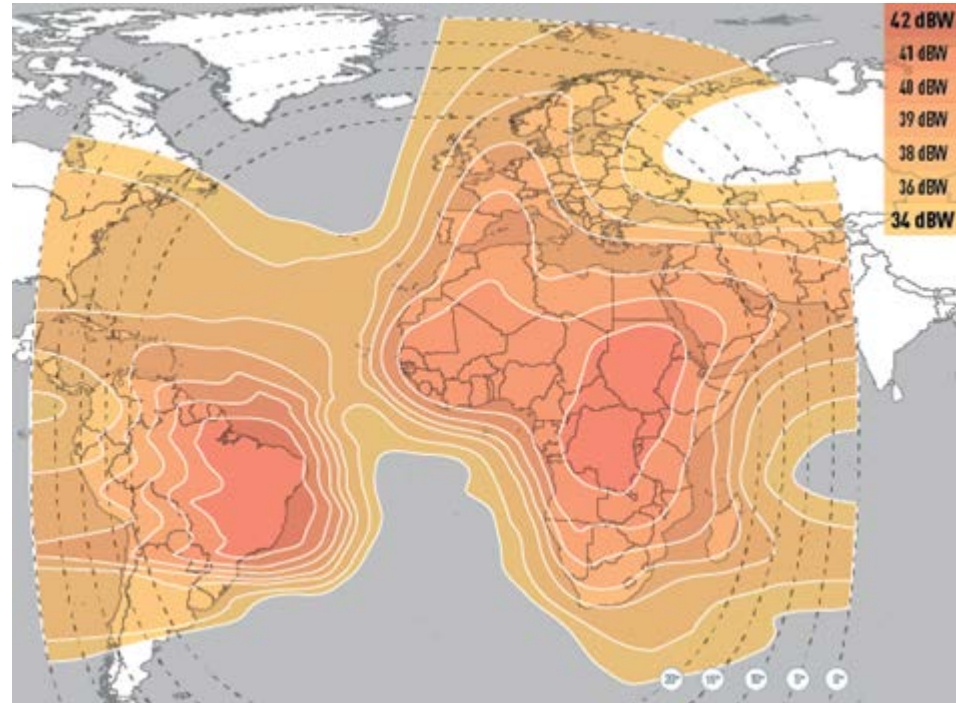
- New service will start on 1 May 2018 & the existing service will terminate on 1 August 2018;
- It will be based on DVB-S2 to take advantage of the better spectral efficiency of the broadcast;
- Service will have its own dedicated uplink and it will no longer use the European turnaround, i.e. African data will not be sent out over the EUMETCast Europe service.
- Service designed to maintain the antenna sizes for primary users, i.e. on the Africa continent, on the Arabian Peninsula, and on the Atlantic and Indian Ocean islands. A detailed availability plot versus antenna size for the whole footprint will be provided in Autumn 2017;

# New EUMETCast Africa Service

- Service will transmit using circular polarisation in C-band. Therefore, the existing feed and LNB can be used. The exact details will be provided soon;
- Existing PUMA2015 DVB devices have been tested and can be used;
- Antenna pointing may be sufficient to already receive a signal from EUTELSAT 8 West. However, it is mandatory to optimise the pointing using the latest guide (EUMETSAT website).

# Satellite footprint (new Africa Service)

- EUMETCast Africa
- Eutelsat 8 West
- C-band
- Position: 8° West





# Further information about the new Africa Service

- For further details and future updates see:

[https://www.eumetsat.int/website/home/TechnicalBulletins/EUMETCast/DAT\\_3589215.html](https://www.eumetsat.int/website/home/TechnicalBulletins/EUMETCast/DAT_3589215.html)

- All registered user of the current EUMETCast Africa service have been contacted and informed about the change. We will be sending out periodic updates.

# Dissemination Baseline Updates and Status

- Overview:
  - New product collections added: 16
  - Product collections removed: 6
  - Current bandwidth allocation: 9.9 Mbps (= 7.7 Mbps net)
- PUMA2015 upgrade – pending update with Telespazio (due date was end Sep) this will allow the processing of the Met Office 17km model output.

- **EUMETSAT Central Facility:**
  - IODC Meteosat-8 HR-SEVIRI image data & meteorological products from Meteosat-8.

## • Third Party

- S-NPP VIIRS fire product (replacing old MODIS fire product)
- Met Office 4 km East Africa Model Data
- Met Office Unified Model Data (17 km) for Africa
- Long Term Statistics of NDVI from SPOT-VGT and PROBA-V (from JRC for MESA project)
- Long Term Statistics of CHIRPS Rainfall Estimate generated by JRC
- MODIS Burned Area product from CSIR

# Dissemination Baseline Updates - new

- **EU Copernicus Products**

- Sentinel-3 OLCI, SRAL & SLSTR Level-2 products (Ocean colour, Sea Level & SST)
- Global Land service (VITO):
  - Leaf Area Index V2 - PROBA-V - South America
  - Fraction of green vegetation cover V2 - PROBA-V - South America
  - Fraction of Absorbed Photosynthetically Active Radiation V2 - PROBA-V - South America
  - Leaf Area Index V2 - PROBA-V - Africa
  - Fraction of green vegetation cover V2 - PROBA-V - Africa
  - Fraction of Absorbed Photosynthetically Active Radiation V2 - PROBA-V - Africa
- Future:
  - Sentinel-3 Level 2 SST products in GRSST format
  - Sentinel-3 Level 2 land products (incl inland water altimeter products).

# Dissemination Baseline Updates - removed

- Products removed from the baseline:
  - Meteosat-7 IODC service – end of service (31 Mar 2017)
  - Fire Product - MODIS (Feb 2017)
  - Meteo-France RETIM Africa Service – replaced by a new on-demand terrestrial service (July 2017)
  - End of GOES-13 GOES-E service (14 Dec 2017)
  - OSI SAF
    - Radiative Fluxes in GRIB format - replaced by netCDF (14 Dec 2017)
    - Sea Ice products in GRIB format – replaced by netCDF (5 April 2017)

# Meteosat Mission Swap Q1/2018

- Meteosat-11 (launched ) will start operational service in 2018 taking over the Full Earth 0 degree service;
- Meteosat-10 will take over the European Rapid Scan service (RSS);
- Meteosat-9 becomes back-up;
- Meteosat-11 data should be processed by the PUMA2015 software without problems – it was tested during commissioning.

# Meteosat Mission Swap Q1/2018

- Timeline of the mission swap in 2018:

Early-Jan	Met-11 de-storage start and test disseminations begin
6 Feb	Met-10/11 FES parallel dissemination start (EUMETCast Europe only)
20 Feb	Met-11 (now at 0° longitude) prime FES
6 March	Met-10 FES stop
13 March	Met-9/10 RSS parallel dissemination start
20 March	Met-10 (now at 9.5°E longitude) prime RSS
27 March	Met-9 (now at 3.5° longitude) stops RSS and becomes hot backup for RSS & FES

- Web page is being prepared for release in end/Oct early Nov.



# Meteosat Level 1.5 SEVIRI Georeference Offset Correction

- Observed offset, with respect to the reference coastline, is 1.5 km North and 1.5 km West for all spectral channels, but does not invalidate the absolute accuracy of the image data which remains within specification (3 km).
- Correction will be applied to NRT data (Meteosat-8, -9, -10) on 6 December 2018;
- No impact noticed on PUMA2015 processing software.
- More information:  
[https://www.eumetsat.int/website/home/News/DAT\\_3669613.html?lang=EN&pState=1](https://www.eumetsat.int/website/home/News/DAT_3669613.html?lang=EN&pState=1)

# Other Service updates

- **LRIT Direct Dissemination service from the Meteosat 0° satellite to terminate on 3 April 2018 due to:**
  - limitations of LRIT capabilities significant growth in data volumes means that several data sets can no longer be accommodated on the LRIT direct dissemination transmission;
  - cost considerations.

# Other Service updates - Copernicus

- Copernicus Online Data Access (CODA)
  - All Sentinel-3 NRT, STC, NTC level 1 and marine level 2 data are available through CODA and access is via your EO Portal credentials;
- EUMETView:
  - Already have OCLI L1 natural colour RGB
  - Ocean colour, chlorophyll-a & SST product to come (Nov 17)

# Other Service updates – Pathfinder Projects

- EUMETSAT is exploring new data services, these are in the form of Pathfinders Projects:
  - PF I – Online Data Access
  - PFII – EUMETCast Terrestrial
  - PFIII – Licensed Web Map Service
  - PF IV – Product Customisation Toolbox
  - PF V – Hosted processing
- Development on going with user validation period planned for Q2/2018 (primarily involving Member State NMHSs);
- Services will begin to come on line from 2019 onwards subject to EUMETSAT Council approval in Dec 2018.