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Introduction

EUMETCast is EUMETSAT's broadcast system for environmental data. It utilises telecommunications satellites and the services of telecommunications providers to distribute data files using Digital Video Broadcast (DVB) standards to a wide audience located within the combined geographical coverage zones of the individual telecommunication satellites used to transmit the data.

Services available via EUMETCast

The following EUMETSAT services are currently available via EUMETCast:

- High Rate SEVIRI Image Data (every 15 minutes)
- Low Rate SEVIRI Image Data (every 30 minutes)
- Rapid Scanning Service (RSS) (every 10 minutes) - *Ku-band only*
- 0° High Resolution Image (HRI) (every 30 minutes)
- Indian Ocean Data Coverage (IODC) (every 30 minutes)
- Foreign Satellite Data from GOES E/W & GMS (every 3-hours)
- Data Collection Platform (DCP) Retransmissions
- Meteorological Data Dissemination (MDD)
- Meteorological Products (including some Satellite Application Facility products)
- EUMETSAT ATOVS Retransmission Service (EARS) - *Ku-band only*
- DWDSAT - *Ku-band only*
- VEGETATION data - *African users in C-band only*

EUMETSAT Data Policy principles apply to some of the above services. Access to DWDSAT is granted in accordance with the data policy of Deutscher Wetterdienst.

EUMETCast System Overview

Within the current EUMETCast configuration, the broadcast system is based on a client/server system developed by Tellique Kommunikationstechnik GmbH. The server side is implemented at the EUMETCast uplink

site (Usingen, Germany), and the client side installed on the individual EUMETCast reception stations. Standard FTP is used on top of IP over the DVB multicast platform provided by the telecommunications providers.

Data files are transferred from the external gateway facility via a dedicated communications line from EUMETSAT to the uplink facility. These files are encoded and transmitted to geostationary communications satellites for broadcast to user receiving stations. Each receiving station decodes the signal and recreates the data/products according to a defined directory and file name structure.

Figure 1 shows how EUMETCast fits within the overall EUMETSAT Ground Segment architecture.

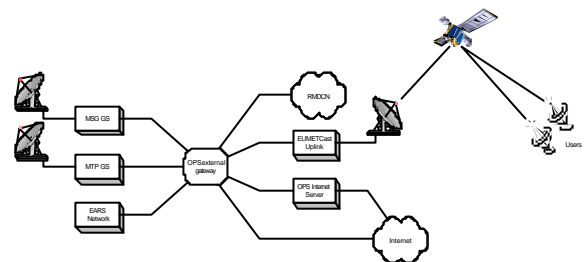


Figure 1 EUMETCast System Overview

In the current configuration, EUMETCast reception is available in Ku and C-band. The C-band delivery is operated as a turnaround of the Ku-band delivery. The data streams are uplinked to the AtlanticBird 3 satellite from ground station in Fucino, Italy. Figure 2 illustrates this turnaround mechanism.

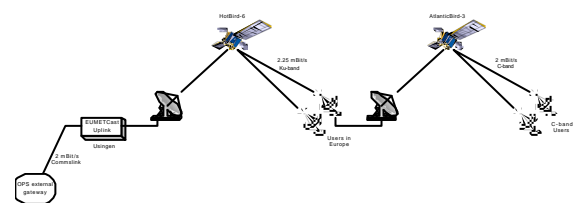


Figure 2 C-band Turnaround

A single reception station can receive any

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combination of the provided services. Users wishing to receive data whose access is controlled in accordance with EUMETSAT Data Policy will need to install a EUMETCast Key Unit (EKU). The EKU is the USB device used in conjunction with a corresponding user_name and user_key to facilitate the reception of licensed services.

EUMETCast Geographical Coverage

The Ku-band has excellent coverage of Europe, northern Africa and parts of the Middle East, whilst the C-band coverage includes the African continent and parts of America in addition to Europe, see Figure 3 and 4.

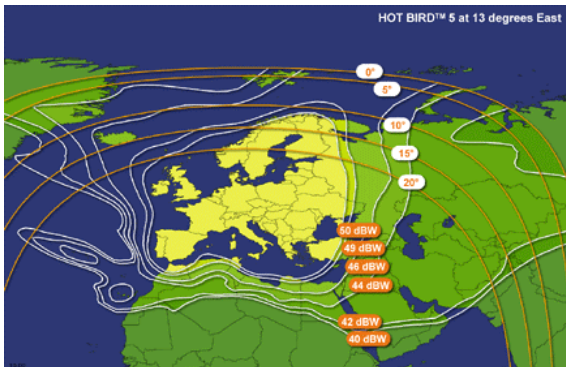


Figure 3 HotBird 6 Satellite Coverage

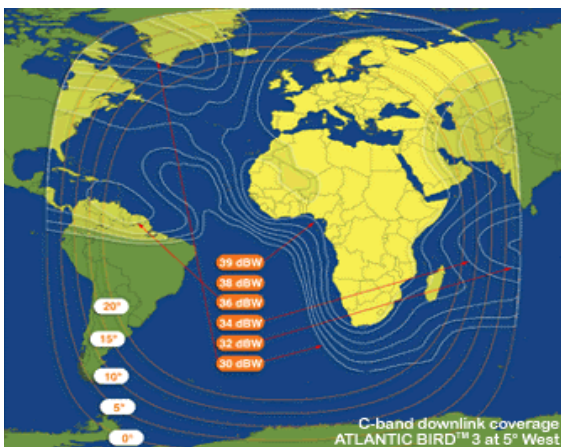


Figure 4 AtlanticBird 3 Coverage

Additional information on EUTELSAT's HotBird and Atlantic Bird satellites can be found on their

web site at: <http://www.eutelsat.com>

Reception Station Requirements

A typical EUMETCast reception station comprises of a standard PC with DVB card inserted and a satellite off-set antenna fitted with a digital universal V/H LNB. In addition, Users require the EUMETCast Client Software. The EUMETCast Client Software is mandatory and a licence is required for each user station. The client software is required for handling the incoming DVB and storing it as data files. All components of the reception station are commercially available. The EUMETCast Client Software and the EKU are available directly from EUMETSAT at a cost of €60 and €40 respectively.

For detailed information on reception station requirements and set-up procedure, please refer to the EUMETCast Technical Description, EUM TD 15, available from the EUMETSAT web site.

For further information on EUMETCast and the services broadcast via EUMETCast, please refer to the EUMETSAT web site or contact the EUMETSAT User Service.

EPS via EUMETCast

The EUMETCast System will be extended to provide dissemination of EPS products. Figure 5 below sketches the extended system architecture.

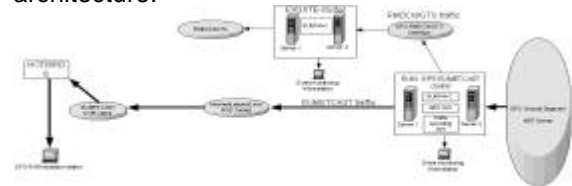


Figure 5 EPS via EUMETCast

It is foreseen to include the EPS Global products in Ku-band, for a European audience. In addition, it is planned to extend the current EARS service to include the Regional EPS products. For further information on EPS, contact the User Service.