

Centre de
Météorologie
Spatiale

**METEO
FRANCE**

The Satellite Meteorology Centre



The Satellite Meteorology Centre (Centre de Météorologie Spatiale: CMS) is established at Lannion in the Côtes d'Armor area. Created in 1963 at the dawn of satellite meteorology, it was initially an experimental and development unit. Although research and development are still a major part of its activity, the CMS is now an operational centre within the Production Department of Météo-France.

Its main missions

- Acquire, process, archive satellite data and disseminate products in real time in compliance with operational user requirements.
- Design and develop satellite processing algorithms and software. The CMS prepares the applications that enable Météo-France to benefit from current and future space observation instruments.
- Implement the production systems, hardware and software that are necessary for its operation and ensure the operational availability of these systems.
- The CMS applies its expertise to its areas of excellence. It provides training, assistance and supplies imagery products extracted from the archive for scientific, institutional or commercial purposes.

Spheres of activity

The main role of the CMS is to meet the requirements of weather forecasting (nowcasting, synoptic forecasting and numerical modelling), observation of the ocean surface and support to weather satellite operators.

Its main scientific and technical areas of expertise are:

- preprocessing of satellite data, particularly the supply of software that can preprocess data from polar orbiting satellites,
- radiative transfer and the processing of data from IR and microwave sounders,
- multispectral processing of visible and infrared images, and the recognition and classification of clouds from this data,
- algorithms for computing surface parameters (surface temperature of the ocean or earth, incident radiative flux) from visible and infrared data,
- meteorological interpretation of satellite images,
- direct read-out systems and real-time acquisition of satellite data.

At an operational level, the CMS aims to provide high quality services in terms of accuracy, timeliness and reliability. The production is automated, secure and supervised as well as benefiting from the proximity of the development teams. The CMS acquires and processes the data of the main operational weather satellites. Its radioelectric capabilities and its geographic location provide it with direct access to the transmissions of several geostationary and polar orbiting satellites. International broadband connections also enable it to concentrate data from satellites lying outside its zone of visibility and to provide a relay to the benefit of the EUMETSAT user community.

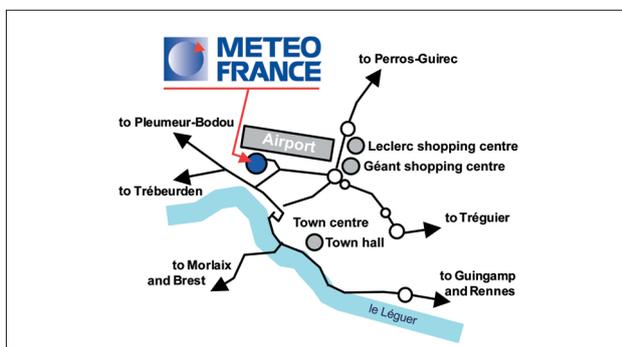
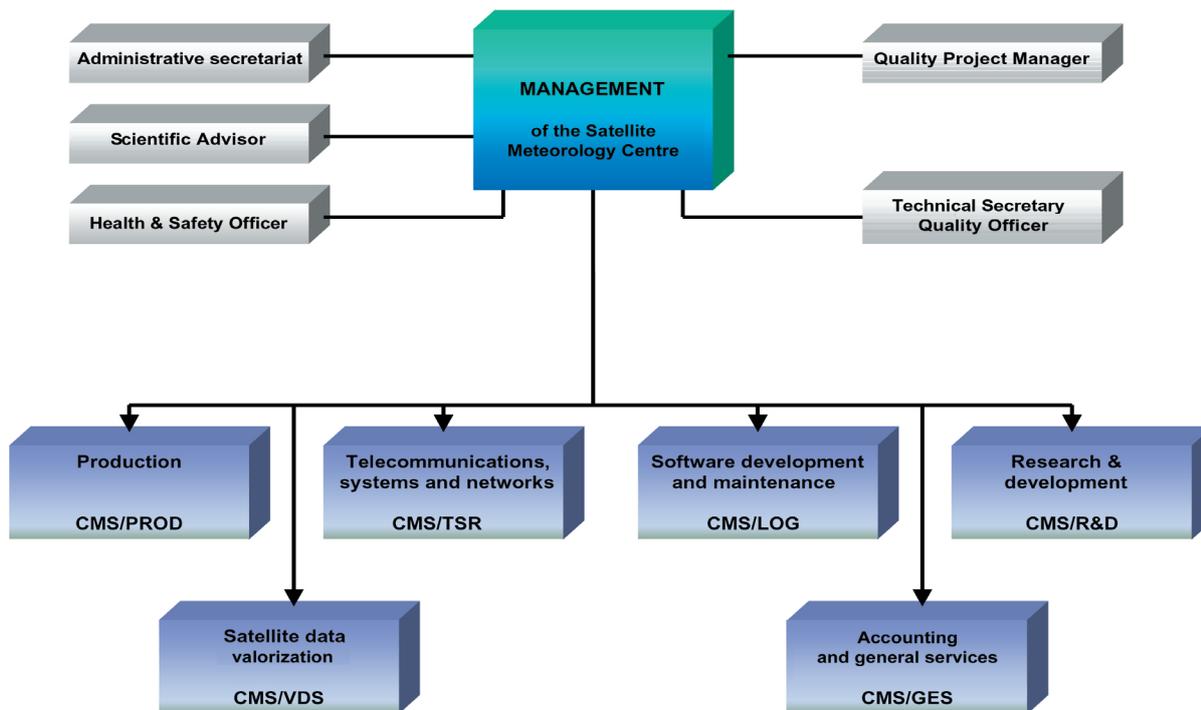
International commitments

The CMS conducts operational or development activities on an international level, particularly within the context of the Satellite Application Facilities (SAF) of the European EUMETSAT organization in co-operation with various European meteorological services. It is the prime contractor of the Ocean and Sea Ice SAF, contributes to the Nowcasting and Very Short Range Forecasting SAF, and to the Numerical Weather Prediction SAF.

Since the 1977 launch of the first European Meteosat satellite by the European Space Agency, the CMS has relayed data from the American satellite GOES to the Meteosat satellite. This activity continued after the creation of EUMETSAT then developed and regularly modernised to become the Foreign Satellite Data Service (FSDS) integrated within the ground segment of the Meteosat Second Generation programme. The CMS has provided the intercalibration of the operational geostationary satellites since 1983 within the framework of the International Satellite Cloud Climatology Project (ISCCP).

Organization

The CMS has a staff of 80 people spread over one management unit and six divisions.



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