

Climate Monitoring from Space: The EUMETSAT Satellite Application Facility on Climate Monitoring

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The EUMETSAT Satellite Application Facility on Climate Monitoring (CM SAF) develops, generates, archives and distributes high-quality satellite-derived products of the energy & water cycle in support to monitor, understand and adapt to climate variability and climate change.

The product portfolio of the CM SAF comprises long time series of Essential Climate Variables (ECV's) related to the energy & water cycle as defined by the Global Climate Observing System (GCOS), in particular the following parameters are derived:

- Global cloud parameters
- Global precipitation (planned)
- Global radiation at surface
- Global water vapour
- Regional (Europe & Africa) radiation top of the atmosphere
- Regional latent and sensible heat flux (planned)

CM SAF provides Thematic Climate Data Records (TCDR) of the above listed parameters in netCDF format free of charge (www.cmsaf.eu). Some of these data records are available in a format compatible with Obs4MIPs / ESGF.

For some of the TCDRs also the corresponding Interim Climate Data Records (ICDR) are produced on a regular basis.

The CM SAF data records are to a large extent compliant with the GCOS Requirements for the Generation of Datasets and Products, including an assessment of the System Maturity per data record (according to the CORE-CLIMAX System Maturity Matrix Instruction Manual).

The presentation will give an overview of the products & service portfolio as well as typical applications and perspectives for new developments and issues tackled (e.g. provision of error characteristics).