

CM SAF Newsletter 13

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The EUMETSAT
Network of
Satellite Application
Facilities



Release of a new dataset of CM SAF Climate Data Record of Free Tropospheric Humidity from METEOSAT

The CM SAF Free Tropospheric Humidity (FTH) data set from METEOSAT2-5 and METEOSAT7-9 provides the mean relative humidity over a deep layer of the troposphere within $\pm 45^\circ$ longitude and $\pm 45^\circ$ latitude. The retrieval was developed at Centre National de la Recherche Scientifique (CNRS) and - after transfer to CM SAF - CM SAF and CNRS jointly extended the time series into the SEVIRI era. The product is defined under clear sky and low level cloud conditions and is available at 3-hourly temporal resolution and as monthly averages (straightforward averages over all valid observations) on a regular latitude/longitude grid with a spatial resolution of $0.625^\circ \times 0.625^\circ$. The temporal coverage of the data sets ranges from July 1983 to December 2009. The METEOSAT6 period, March 1997-May 1998, is not covered. The FTH layer position and thickness depends on atmospheric condition, in particular water vapour content in the free troposphere. The clear sky radiance is provided as auxiliary information layer. The data can be ordered via the [CM SAF Web User Interface](#). Further information on the dataset including links to the documentation (ATBD, PUM, Validation Report) can be found via [DOI:10.5676/EUM_SAF_CM/FTH_METEOSAT/V001](https://doi.org/10.5676/EUM_SAF_CM/FTH_METEOSAT/V001)

Release of CM SAF Climate Data Record of HTW, HLW and HSH based on ATOVS

The CM SAF ATOVS data set offers 13 years (01 January 1999 - 31 December 2011) of water vapour and temperature satellite-derived global products. Different parameters generated simultaneously are available: vertically integrated water vapour (kg/m^2 , HTW), vertically integrated water vapour (kg/m^2) and mean temperature (K) in 5 layers (HLW), specific humidity (g/kg) and temperature (K) on 6 levels (HSH). Also available are number of valid observations and an uncertainty estimate. The data set was derived from ATOVS onboard the NOAA satellites, NOAA-15, NOAA-16, NOAA-17, NOAA-18, NOAA-19 and onboard the European Metop-A satellite. ATOVS is composed of three instruments: HIRS, AMSU-B/MHS and AMSU-A. After application of a kriging routine, the products are available as daily and monthly means on a cylindrical equal area projection of $90\text{km} \times 90\text{km}$. Grid information is given for centre position. Layers are (hPa): 200-300, 300-500, 500-700, 700-850, 850-surface. Levels are: 200, 300, 500, 700, 850, 1000 hPa. The data can be ordered via the [CM SAF Web User Interface](#). Further information on the data set can be found via its DOI: [10.5676/EUM_SAF_CM/WVT_ATOVS/V001](https://doi.org/10.5676/EUM_SAF_CM/WVT_ATOVS/V001)

Decontamination of Meteosat-10 SEVIRI instrument from 1-9 July 2013 and effects on CM SAF EDR products CFC, CTT, CTH, CTP, SIS and SID

From 1 July to 9 July 2013 EUMETSAT performed a decontamination of the SEVIRI instrument onboard Meteosat-10 (for further information please check the EUMETSAT News page ([Link](#)). During this time no Meteosat-10 SEVIRI data had been available. Meteosat-10 SEVIRI data became available again at 09:15 UTC on 9 July 2013. This affected the processing of the SEVIRI-based CM SAF Environmental Data Records (EDR) of CFC, CTT, CTH, CTP, SIS and SID. Although Meteosat-8 replaced Meteosat-10 during this time, the SEVIRI-based CM SAF cloud and surface radiation products have not been calculated during the time frame of the satellite's decontamination. There are no daily mean products available for the time frame 01-08 July 2013. The daily mean product for 09 July 2013 is based on a reduced amount of input data. The monthly mean as well as the monthly mean diurnal cycle products based on SEVIRI are based on a reduced amount of input data for July 2013 as a consequence of the decontamination phase. Users should be aware of the effects when interpreting the SEVIRI-based EDR products from July 2013.

2013 CM SAF Online day

On Tuesday, 1 October 2013, three online presentations will introduce current activities of the CM SAF. The first presentation (8 UTC) will provide an overview of CM SAF products and data sets. Afterwards the recently released CM SAF Clouds, Albedo and Radiation dataset from AVHRR (CLARA) will be introduced. Additionally, information on software tools and scripts that are supported by CM SAF for analysing CM SAF data will be provided in the afternoon lecture.

Participation in these sessions (each approx. 45 min) is free of charge. Interested parties are requested to register in advance at <http://training.eumetsat.int/mod/page/view.php?id=5703>

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