

Release of CM SAF Land Surface Temperature dataset from METeosat First and Second Generation - Edition 1 (SUMET Ed. 1)

This Thematic Climate Data Record (TCDR) provides Land Surface Temperature (LST) derived from the Meteosat Visible and InfraRed Imager (MVISIR) on board the Meteosat First Generation (MFG) and the Spinning Enhanced Visible and InfraRed Imager (SEVIRI) onboard the Meteosat Second Generation (MSG) satellites. The covered time period ranges from January 1991 to December 2015, thus includes MFG 4 to 7 and MSG 1 to 3. Original thermal radiances were inter-calibrated by the European Organisation for the Exploitation of Meteorological Satellites (EUMETSAT) using the High Resolution Infrared Radiation Sounder (HIRS) as a reference. The LST is derived from Meteosat by use of single-channel LST retrieval algorithms suitable to generate LST data across Meteosat satellite generations. This TCDR includes two different LST products: the Statistical Land Surface Temperature product generated with a statistical LST retrieval approach and a Physical Land Surface Temperature product based on radiative transfer calculations. The LST is presented as hourly data and as monthly averaged diurnal cycle composites on a $0.05^{\circ} \times 0.05^{\circ}$ grid covering the entire Meteosat disk (Africa and Europe). A summary of the retrieval algorithms is provided by [Duguay–Tetzlaff et al. \(2015\)](#). Along with the data, a comprehensive documentation including user guide, algorithm descriptions and extensive validation studies, is given.

The data record can be ordered via the [Web User Interface](#). More information on the data record is available from the DOI page: [10.5676/EUM_SAF_CM/LST_METEOSAT/V001](https://doi.org/10.5676/EUM_SAF_CM/LST_METEOSAT/V001)

Release of CM SAF Cloud Fractional Cover dataset from METeosat First and Second Generation - Edition 1 (COMET Ed. 1)

This Thematic Climate Data Record (TCDR) provides cloud fractional cover (CFC) derived from the Meteosat Visible and InfraRed Imager (MVISIR) on board the Meteosat First Generation (MFG) and the Spinning Enhanced Visible and InfraRed Imager (SEVIRI) onboard the Meteosat Second Generation (MSG) satellites. The covered time period ranges from January 1991 to December 2015, thus includes MFG 4 to 7 and MSG 1 to 3. Original thermal radiances were inter-calibrated by the European Organisation for the Exploitation of Meteorological Satellites (EUMETSAT) using the High Resolution Infrared Radiation Sounder (HIRS) as a reference. The Meteosat CFC is presented as hourly, daily and monthly composites on a $0.05^{\circ} \times 0.05^{\circ}$ grid covering the entire Meteosat disk (Africa and Europe). The CFC data is derived from two Meteosat heritage channels by use of an advanced Bayesian retrieval algorithm. It employs continuous cloud scores, which are built on a contemporaneous clear sky background inversion. The Meteosat CFC is characterized by comparability to the SYNOP-based long-term CFC observations carried out at WMO ground stations. The Meteosat CFC is therefore useful to supplement the ground-based CFC estimates in areas with low station density or high spatio-temporal CFC variability. Along with

the data, a comprehensive documentation including user guide, algorithm descriptions and extensive validation studies, is given.

The data record can be ordered via the [Web User Interface](#). More information on the data record is available from the DOI page: [10.5676/EUM_SAF_CM/CFC_METEOSAT/V001](https://doi.org/10.5676/EUM_SAF_CM/CFC_METEOSAT/V001)

Operations Report for January- June 2017 available

The [1st Operations Report 2017](#) covering the reporting period January to June 2017 is available on our webpage. The purpose of the Operations Report is to outline the operations activities within the CM SAF and to provide a summary of operational activities during the reporting period. Furthermore, a summary of User Help Desk (UHD) activities and user statistics is given. An [archive](#) of previous reports can be found on our webpage as well.

CM SAF presentations at upcoming conferences

Presentations on CM SAF topics will be given at a number of upcoming conferences presenting the latest results of our work, among others:

- 2-6 Oct 2017, [EUMETSAT Meteorological Satellite Conference](#), Rome, Italy
- 29 Nov – 5 Dec 2017, [International TOVS Study Conference XXI \(ITSC-XXI\)](#), Darmstadt, Germany

Publications by CM SAF team

The following list gives an overview of some recently published papers by the CM SAF team covering CM SAF products and developments. Authors from the current CM SAF team are marked in bold:

Benas, N., Finkensieper, S., Stengel, M., van Zadelhoff, G.-J., Hanschmann, T., **Hollmann, R., and Meirink, J. F.:** The MSG-SEVIRI-based cloud property data record CLAAS-2, Earth Syst. Sci. Data, 9, 415-434, DOI: [10.5194/essd-9-415-2017](https://doi.org/10.5194/essd-9-415-2017), 2017.

Schröder, M., M. Lockhoff, F. Fell, J. Forsythe, T. Trent, R. Bennartz, E. Borbas, M. G. Bosilovich, E. Castelli, H. Hersbach, M. Kachi, S. Kobayashi, D. Loyola, C. Mears, R. Preusker, W. B. Rossow, S. Saha, 2017: The GEWEX Water Vapor Assessment archive of water vapour products from satellite observations and reanalyses. DOI: [10.5676/EUM_SAF_CM/GVAP/V001](https://doi.org/10.5676/EUM_SAF_CM/GVAP/V001).

Taylor, S., Stier, P., White, B., **Finkensieper, S., and Stengel, M.:** Evaluating the diurnal cycle in cloud top temperature from SEVIRI, Atmos. Chem. Phys., 17, 7035-7053, doi: [10.5194/acp-17-7035-2017](https://doi.org/10.5194/acp-17-7035-2017), 2017.

=====
If you do not want to receive the CM SAF newsletter any longer you can cancel it at any time by changing the settings in your user profile on the Web User Interface page <https://wui.cmsaf.eu>