

CM SAF entered its 4th CDOP Phase on 1st of March 2022

Not only the currently released 6th IPCC report is demonstrating that climate and climate change is an urgent and important topic for mankind. CM SAF with its climate data records provides a strong foundation of the scientific developments.

Since 1999 the CM SAF team is supporting climate monitoring through the generation and provision of climate data records from satellite. This remains the main focus of CM SAF which of course is complemented by comprehensive services to its users - from supporting their access to data towards training activities to support understanding and handling of our data.

In the last five years, during CDOP-3, the CM SAF team updated and improved a lot of our well-known and established climate data records, capturing now the complete WMO reference period from 1991 to 2020. Some of the data, called Interim Climate Data Records (ICDRs), are processed as a continued service providing daily and monthly data with typically less than five days after observation to enable climate monitoring.

This success story will be continued with further improvements and extensions of the climate data records (CDRs), planned to be delivered until 2027:

- Improved GeoRing coverage using GeoRing data where possible
- Implementing latest scientific developments
- Upgrading the ICDRs to use MTG in a seamless way
- Investigating consistency of the variables for the Earth's energy budget and water cycle
- Supporting GEWEX G_{Vap} and ISSCP-NG activities as main European Contributor

Additionally, CM SAF is moving to the newly available EUMETSAT cloud infrastructure which is seen as a perfect framework to intensify the collaboration between SAFs, EUMETSAT Central Facility and the users in the long-term.

Change in availability of CM SAF Environmental Data Records via the CM SAF Web User Interface

During the last years the CM SAF product portfolio has changed and with our AVHRR-based EDRs the last of the environmental data records has been discontinued in September 2021. For nearly all of these parameters CM SAF provides Thematic Climate Data Records (TCDRs) and (partly) Interim Climate Data Records (ICDRs) with a better quality in coverage, algorithmic and accuracy and it is highly recommended to use these TCDRs and ICDRs. In order to help our users to identify the most recent TCDR and ICDR data all discontinued CM SAF EDR products will only be made available on request only from now on:

Product	Source	Temp. Specs	Area	Version numbers	CM SAF ID
CFC	MSG	Monthly Mean Monthly Mean Diurnal Cycle Daily Mean	Baseline Area	210	CM-01
CFC	MSG	Monthly Mean Monthly Mean Diurnal Cycle Daily Mean	Full disk	300-350	CM-02
CFC	AVHRR	Monthly Mean Daily Mean	Baseline Area	130-350	CM-03
CFC	AVHRR	Monthly Mean Daily Mean	Arctic	310-350	CM-04
COT	MSG	Monthly Mean Monthly Mean Diurnal Cycle Daily Mean	Baseline Area	210	CM-31
COT	MSG	Monthly Mean Monthly Mean Diurnal Cycle Daily Mean	Full disk	300-320	CM-32
COT	AVHRR	Monthly Mean Daily Mean	Baseline Area	130-340	CM-33
CPH	AVHRR	Monthly Mean Daily Mean	Baseline Area	130-350	CM-33
CPH	MSG	Monthly Mean Monthly Mean Diurnal Cycle Daily Mean	Full disk	300-320	CM-36
CTH	MSG	Monthly Mean Monthly Mean Diurnal Cycle Daily Mean	Full disk	300-350	CM-14
CTH	AVHRR	Monthly Mean Daily Mean	Baseline Area	130-350	CM-15
CTH	AVHRR	Monthly Mean Daily Mean	Arctic	310-350	CM-16
CTH	MSG	Monthly Mean Monthly Mean Diurnal Cycle Daily Mean	Baseline Area	210	CM-19
CTP	MSG	Monthly Mean Monthly Mean Diurnal Cycle Daily Mean	Full disk	300-350	CM-14
CTP	AVHRR	Monthly Mean Daily Mean	Baseline Area	130-350	CM-15
CTP	AVHRR	Monthly Mean Daily Mean	Arctic	310-350	CM-16
CTP	MSG	Monthly Mean Monthly Mean Diurnal Cycle Daily Mean	Baseline Area	210	CM-25
CTT	MSG	Monthly Mean Monthly Mean Diurnal Cycle Daily Mean	Baseline Area	210	CM-13
CTT	MSG	Monthly Mean Monthly Mean Diurnal Cycle Daily Mean	Full disk	300-350	CM-14
CTT	AVHRR	Monthly Mean Daily Mean	Baseline Area	130-350	CM-15

Product	Source	Temp. Specs	Area	Version numbers	CM SAF ID
CTT	AVHRR	Monthly Mean Daily Mean	Arctic	310-350	CM-16
CTY	MSG	Monthly Mean Monthly Mean Diurnal Cycle Daily Mean	Baseline Area	210	CM-07
CTY	MSG	Monthly Mean Monthly Mean Diurnal Cycle Daily Mean	Full disk	300-360	CM-08
CTY	AVHRR	Monthly Mean Daily Mean	Baseline Area	130-330	CM-09
CTY	AVHRR	Monthly Mean Daily Mean	Arctic	310-330	CM-10
CWP	MSG	Monthly Mean Monthly Mean Diurnal Cycle Daily Mean	Baseline Area	210	CM-40
CWP	MSG	Monthly Mean Monthly Mean Diurnal Cycle Daily Mean	Full disk	300-320	CM-41
CWP	AVHRR	Monthly Mean Daily Mean	Baseline Area	130-340	CM-42
HLW	ATOVS	Monthly Mean Daily Mean	Global	300-350	CM-131
HSH	ATOVS	Monthly Mean Daily Mean	Global	300-350	CM-137
HTW	ATOVS	Monthly Mean Daily Mean	Global	300-350	CM-122
SAL	MSG	Weekly Mean Monthly Mean	Baseline Area	210	CM-55
SAL	MSG	Weekly Mean Monthly Mean	Full disk	300-330	CM-56
SAL	AVHRR	Weekly Mean Monthly Mean	Baseline Area	130-340	CM-57
SAL	MSG+POL	Monthly Mean	Full disk	300-331	CM-58
SAL	AVHRR	Weekly Mean Monthly Mean	Arctic	311-340	CM-59
SDL	MSG	Monthly Mean Monthly Mean Diurnal Cycle	Baseline Area	210	CM-77
SDL	MSG	Monthly Mean Monthly Mean Diurnal Cycle	Full disk	300-320	CM-78
SDL	AVHRR	Monthly	Baseline Area	130-303	CM-79
SDL	MSG+POL	Monthly Mean	Full disk	300-331	CM-80
SID	MSG	Monthly Mean Daily Mean	Full disk	321-350	CM-104
SIS	MSG	Monthly Mean Monthly Mean Diurnal Cycle Daily Mean	Baseline Area	210	CM-48
SIS	MSG	Monthly Mean Monthly Mean Diurnal Cycle Daily Mean	Full disk	300-350	CM-49

Product	Source	Temp. Specs	Area	Version numbers	CM SAF ID
SIS	AVHRR	Monthly Mean Daily Mean	Baseline Area	130-330	CM-50
SIS	MSG+POL	Monthly Mean	Full disk	300-332	CM-51
SNL	MSG	Monthly Mean Monthly Mean Diurnal Cycle	Baseline Area	210	CM-84
SNL	MSG	Monthly Mean Monthly Mean Diurnal Cycle	Baseline Area	300-320	CM-85
SNL	AVHRR	Monthly Mean	Baseline Area	130-303	CM-86
SNL	MSG+POL	Monthly Mean	Full disk	300-331	CM-87
SNS	MSG	Monthly Mean Monthly Mean Diurnal Cycle Daily Mean	Baseline Area	210	CM-63
SNS	MSG	Monthly Mean Monthly Mean Diurnal Cycle Daily Mean	Full disk	300-322	CM-64
SNS	AVHRR	Monthly Mean Daily Mean	Baseline Area	130-304	CM-65
SNS	MSG+POL	Monthly Mean	Full disk	300-332	CM-66
SOL	MSG	Monthly Mean Monthly Mean Diurnal Cycle	Baseline Area	210	CM-70
SOL	MSG	Monthly Mean Monthly Mean Diurnal Cycle	Full disk	300-320	CM-71
SOL	AVHRR	Monthly Mean	Baseline Area	130-303	CM-72
SOL	MSG+POL	Monthly Mean	Full disk	300-331	CM-73
SRB	MSG	Monthly Mean Monthly Mean Diurnal Cycle	Baseline Area	210	CM-91
SRB	MSG	Monthly Mean Monthly Mean Diurnal Cycle	Baseline Area	300-322	CM-92
SRB	AVHRR	Monthly Mean	Baseline Area	130-304	CM-93
SRB	MSG+POL	Monthly Mean	Full disk	300-332	CM-94
TET	MSG and Aqua/Terra	Monthly Mean Monthly Mean Diurnal Cycle Daily Mean	Baseline Area + Arctic	120-303	CM-116
TIS	MSG and Aqua/Terra	Monthly Mean Monthly Mean Diurnal Cycle Daily Mean	Baseline Area + Arctic	120+300	CM-112
TRS	DIARAD/ VIRGO	Monthly Mean Monthly Mean Diurnal Cycle Daily Mean	Baseline Area + Arctic	120-303	CM-114

In addition to the product name and available temporal resolutions for the respective parameters, the range of affected version numbers is given.

Information on these products will remain available on the CM SAF webpage (e.g. [change log](#), [documentation](#)).

Users are advised to order the respective TCDR and ICDR products instead of the above listed EDR products. In case you need access to these older EDR product versions, please contact the CM SAF User Help Desk via contact.cmsaf@dwd.de.

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:

- 23 -27 May 2022, [ESA Living Planet Symposium](#), Bonn, Germany
- 23-27 May 2022, [EGU General Assembly 2022](#), Vienna, Austria
- 4-8 July 2022, [International Radiation Symposium 2022](#), Thessaloniki, Greece
- 4-9 Sep, [EMS Annual Meeting 2022](#), Bonn, Germany
- 19-23 September, 2022, [EUMETSAT Meteorological Satellite Conference](#), Brussels, Belgium
- 17-19 October 2022, [2nd Climate Observation Conference](#), 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:

Devasthale, A., Carlund, T., **Karlsson, K.**: Recent trends in the agrometeorological climate variables over Scandinavia, *Agricultural and Forest Meteorology*, **316**, 108849, DOI: [10.1016/j.agrformet.2022.108849](https://doi.org/10.1016/j.agrformet.2022.108849), 2022.

Jääskeläinen, E., **Manninen, T.**, Hakkarainen, J. Tamminen, J.: Filling gaps of black-sky surface albedo of the Arctic sea ice using gradient boosting and brightness temperature data, *Int. J. Appl. Earth Obs. Geoinf.*, **107**, 102701, DOI: [10.1016/j.jag.2022.102701](https://doi.org/10.1016/j.jag.2022.102701), 2022.

Kaspar, F., Andersson, A., Ziese, M., **Hollmann, R.**: Contributions to the Improvement of Climate Data Availability and Quality for Sub-Saharan Africa, *Front. Clim.*, **3**, DOI: [10.3389/fclim.2021.815043](https://doi.org/10.3389/fclim.2021.815043), 2022.

Müller, R. and **Pfeifroth, U.**: Remote sensing of solar surface radiation – a reflection of concepts, applications and input data based on experience with the effective cloud albedo, *Atmos. Meas. Tech.*, **15**, 1537–1561, DOI: [10.5194/amt-15-1537-2022](https://doi.org/10.5194/amt-15-1537-2022), 2022.

Philippon, N., Ouhechou, A., Camberlin, P., **Trentmann, J.**, Fink, A. H., Maloba, J. D., Morel, B., and Samba, G.: Characterization of Sunshine Duration in Western Equatorial Africa: In Situ Measurements versus SARA-2 Satellite Estimates. *J. Appl. Meteorol. Climatol.*, **61**, 2, 185-201, DOI: [10.1175/JAMC-D-21-0072.1](https://doi.org/10.1175/JAMC-D-21-0072.1), 2022.

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