

Availability of Interim Climate Data Record based on CLARA-A2.1 for products from 1 January 2019 onwards and planned discontinuation of the respective EDR products

A new Interim Climate Data Record (ICDR) based on AVHRR data is available from CM SAF. The products are consistent continuations of the respective parameters from the well-established Thematic Climate Data Record [CLARA-A2.1](#), which in combination are now able to support better climate monitoring applications. The following parameters are available with a timeliness of 5 days from the CM SAF Web User Interface:

- Fractional Cloud Cover (CFC, CM-6010),
- Cloud Top Level (CTO, CM-6030),
- Cloud Phase (CPH, CM-6040),
- Liquid Water Path (LWP, CM-6050),
- Ice Water Path (IWP, CM-6060),
- Surface incoming shortwave radiation (SIS, CM-6210)
- Surface albedo (SAL, CM-6220)

All parameters are available on a global 0.25°x0.25° latitude/longitude grid. For CFC, CTO and SAL, the products are additionally provided in two equal area grids with a resolution of 25 km x 25 km covering the Polar Regions. The cloud parameters and the surface incoming shortwave radiation are available as monthly and daily averages, while the surface albedo is presented as monthly and pentad (5 day) averages. The output format for all products is netCDF-4. The new ICDR products from January 2019 onwards are provided with version number 400 and have the product status “operational”.

User documentation and links to the data ordering are available via the following webpage: [ICDR AVHRR](#)

This new set of products will replace the following AVHRR based Environmental Data Records (EDR):

- Fractional Cloud Cover (CFC, CM-03, CM-04),
- Cloud Top Level (CTO, CM-15, CM-16),
- Cloud PHase (CPH, CM-37),
- Cloud Optical Thickness (COT, CM-33)
- Cloud Water Path (CWP, CM-42)
- Surface Incoming Shortwave radiation (SIS, CM-50)
- Surface ALbedo (SAL, CM-57, CM-59)

It is planned to terminate the production of the respective EDR products by the end of September 2021. Users are recommended to change their applications to the new ICDR parameters during this period of parallel processing. Users who require a longer transition period are requested to contact CM SAF via the [User Help Desk](#). The previously generated data will remain archived and available via the Web User Interface for some time after the termination of the EDR processing (available on request afterwards).

New version of CM SAF Web User Interface

In the past months several updates have been implemented in the CM SAF [Web User Interface](#). Improvements in the selection of sub-areas during the product ordering have been implemented. In some cases, users could define sub-areas of the product, which only included fill values (due to e.g. restrictions on maximum allowed viewing angle or sun zenith angles). This resulted in orders not being processed. Geographical boundaries defined in the DOI description of the data records are now used to verify the valid covered area for cutting out user specific domains in order to avoid errors in the order post-processing. Also, the accessibility of the Web User Interface has been further improved by e.g. updating descriptions and mouse-over texts as well as improvements of the layout for better screen-reader performance.

Another internal update for the CM SAF Web User Interface (WUI) included an update of the underlying framework (Hibernate ORM), used to access and cache requests to the relational database. It was updated from the 4.3 branch to the current stable 5.4 branch. This update became necessary because the 4.3 branch is no longer actively maintained. Due to this major version change, most of the internal database interfaces had to be updated and thoroughly tested. The appearance of the WUI for the user has not changed but future maintenance updates are now possible.

Update of CM SAF R Toolbox: version 3.1.0 available

The latest update of the CM SAF R-Tools 'Beware of the Leopard' (v3.1.0), provides many new features:

- There are 59 new statistical operators for climate analysis. Most of these operators are inspired by the 'Climate Data Operators' (cdo).
- A new interface in the 'Prepare' panel allows a much easier usage of NetCDF data from other SAFs, re-analysis or even C3S.
- Users can now compare CM SAF climate data to other gridded NetCDF data or station data in CSV or RData format. With a few clicks users can create plots, such as histograms, difference plots, scatterplots, Hovmöller plots or time series plots.
- The 'Climate Analysis' operator is now able to handle a wider range of data and can create new types of plots, such as the famous stripe plot (inspired by Ed Hawkins).
- As always, some bugs were fixed to make the CM SAF R Toolbox more stable.

All information on the latest updates and more is available at the [CM SAF R Toolbox website](#).

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:

Bruno, O., Hoose, C., Storelvmo, T., Coopman, Q., **Stengel, M.**: Exploring the cloud top phase partitioning in different cloud types using active and passive satellite sensors. *Geophys. Res. Lett.*, **48**, e2020GL089863, DOI: [10.1029/2020GL089863](https://doi.org/10.1029/2020GL089863), 2021.

Drücke, J., Borsche, M., James, P., Kaspar, F., **Pfeifroth, U.**, Ahrens, B., **Trentmann, J.**: Climatological analysis of solar and wind energy in Germany using the Grosswetterlagen classification, *Renew. Energy*, **164**, 254-1266, DOI: [10.1016/j.renene.2020.10.102](https://doi.org/10.1016/j.renene.2020.10.102), 2021.

Gutenstein, M., **Fennig, K.**, **Schröder, M.**, Trent, T., Bakan, S., Roberts, J. B., and Robertson, F. R.: Intercomparison of freshwater fluxes over ocean and investigations into water budget closure, *Hydrol. Earth Syst. Sci.*, **25**, 121–146, DOI: [10.5194/hess-25-121-2021](https://doi.org/10.5194/hess-25-121-2021), 2021.

Lindfors, A.V., Hertsberg, A., **Riihelä, A.**, Carlund, T., **Trentmann, J.**, Müller, R.: On the Land-Sea Contrast in the Surface Solar Radiation (SSR) in the Baltic Region. *Remote Sens.*, **2020**, *12*, 3509. DOI: [10.3390/rs12213509](https://doi.org/10.3390/rs12213509), 2020.

Manara, V., Stocco, E., Brunetti, M., Diolaiuti, G.A., Fugazza, D., **Pfeifroth, U.**, Senese, A., **Trentmann, J.**, Maugeri, M.: Comparison of Surface Solar Irradiance from Ground Observations and Satellite Data (1990–2016) over a Complex Orography Region (Piedmont—Northwest Italy). *Remote Sens.* **2020**, *12*, 3882, DOI: [10.3390/rs12233882](https://doi.org/10.3390/rs12233882), 2020.

Neher, I., Crewell, S., Meilinger, S., **Pfeifroth, U.**, and **Trentmann, J.**: Photovoltaic power potential in West Africa using long-term satellite data, *Atmos. Chem. Phys.*, **20**, 12871–12888, DOI: [10.5194/acp-20-12871-2020](https://doi.org/10.5194/acp-20-12871-2020), 2020.

=====
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>