

# CM SAF Newsletter 4

## March 2012

The EUMETSAT  
Network of  
Satellite Application  
Facilities



### CM SAF Continuous Development and Operations Phase-2 (2012-2017)

The CM SAF Continuous Development and Operations Phase 2 (CDOP-2) started on 1 March 2012. With the start of CDOP-2 the Met Office, UK, joined the CM SAF as a new partner.

During this 5-year project phase (2012-2017) CM SAF will continue to develop capabilities for a sustained generation and provision of Climate Data Records (CDR) derived from operational meteorological satellites. In particular the generation of long term data sets will be pursued. Another essential task will be the continuation of the generation of data sets produced close to real time, so-called Environmental Data Records (EDR), which can be used to prepare monthly/annual updates of the state of the climate.

With the start of CDOP-2 a change in the product portfolio of the CM SAF EDR products will take place. Some of the EDR products known from the last project phase CDOP will be discontinued. However, the files processed until the end of CDOP are planned to still be available for our users via the CM SAF Web User Interface. A list of the EDR products which are continued in CDOP-2 is available in the latest [CM SAF Operations Report](#).

### CM SAF Operations Report July to December 2011

The [CM SAF Operations Report](#) covering the period July to December 2011 is now available on the CM SAF Webpage. The purpose of the operations report is to provide a summary of operational activities within the reporting period and to outline the operations activities. Furthermore, it gives a summary of User Help Desk (UHD) activities. All Operations Reports back to the beginning of the Initial Operations Phase of CM SAF (which started in 2004) can be accessed via our web page. You can find the reports on [www.cmsaf.eu](http://www.cmsaf.eu) following the link to *Publication & Documentation, CM SAF Documentation, Operations Report*.

### New features in Web User Interface – Selection of CORDEX domains

A new feature of CM SAF's [Web User interface](#) has been introduced in February 2012. It is now possible to order CM SAF products on [CORDEX \(COordinated Regional climate Downscaling Experiment\)](#) domains. In this case the products will be reprojected and interpolated to an equidistant latitude/longitude grid and restricted to a subdomain according to the CORDEX guidelines. The resulting output format is NetCDF with CF conventions.

## **DOI entries for CM SAF Climate Data Records**

The Digital Object Identifier (DOI) system will be applied to allocate the CM SAF climate data records (CDR) as content objects in a digital environment and to ensure persistent identification of these objects. The first CDR of CM SAF being registered with a DOI is the SSM/I-based data set of vertically integrated water vapour (HTW) , ([http://dx.doi.org/10.5676/EUM\\_SAF\\_CM/HTW\\_SSMI/V001](http://dx.doi.org/10.5676/EUM_SAF_CM/HTW_SSMI/V001)). This dataset has already been released in 2009. The registration of further climate data records of CM SAF is planned in the near future.

## **CM SAF Event Week, 25 – 29 June 2012**

This year a CM SAF Event Week takes place from 25 – 29 June 2012 in collaboration with [EUMETSAT](#) and [EUMETRAIN](#). This is an online training for those already using or interested in using the CM SAF products.

The main focus of the week are the fundamentals of the retrieval algorithms used to derive the Essential Climate Variables provided by CM SAF and real world application examples. The presentations will be given by experts from the CM SAF team. It is planned to have up to three online presentations of about 1 hours plus discussions each day. The Event Week is not just a passive experience; participants are invited to work on their own through the prepared exercises. Participants are encouraged to rise questions and share ideas via online fora in parallel to the Event Week.

More information on the CM SAF Event Week and registration to this event week can be found on the training section of the CM SAF web page via the following [link](#).

## **MAGICSOL climate data set – Limitations of usage of SIS CDR daily mean products before 1995**

User application of the SIS CDR revealed a striping feature for the daily mean products before 1995. This corresponds to products derived from MVIRI data onboard the satellites Meteosat 2-4. For Meteosat 2 and 3 this striping is caused by disregarding the special night-time operation of the satellites (18:00-05:00UTC). During day-time the visible channel contained only half of the image (only every second line) for every even slot, whereas for the odd slots the whole image was available. The image at even slots was completed by copying the existing line onto the non-existing one. However, during night-time every image contained only half of the image which resulted in empty lines (all zero's) for the odd slots because the copying routine was only applied to the even slots. These missing lines are then used in the Heliosat algorithm leading to the striping for CAL and, consequently, for SIS and SID.

The hourly mean products are only affected for the early morning and late evening hours. The fields between 07:00 and 17:00 UTC are not involved and can be used without limitations. For the other times during the day the striping is very strong. For SIS for example the mean amplitude is in the order of 40-50 W/m<sup>2</sup>, and a maximum of about 70-80 W/m<sup>2</sup> is found. Therefore, the data for these time periods should not be used. The daily mean products are affected to a lesser extent as the averaging over the whole day reduced the influence of the early and late hours. However, the striping is visible. For the SIS daily mean product the mean amplitude of the stripes is

in the order of 5 W/m<sup>2</sup> (maximum in the order of 20 W/m<sup>2</sup>). For Meteosat 4 the reason for the striping is not yet fully understood. It is not only limited to the early morning and late evening hours but occurs during the whole day Meteosat 4 should not have missing lines as always full images should be available.

Complications might occur during the times when Meteosat 3 served as substitute for Meteosat 4 which then carried on within the processing chain. Thus, further investigations must and will be carried out. Until then the daily means from Meteosat 4 should also be handled with care.

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