

First Announcement

EUMETSAT

Cloud Retrieval Evaluation Workshop-4 (CREW-4)



4-7 March 2014, Grainau, Germany, Europe

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From 4 till 7 March 2014 the 4th Cloud Retrieval Evaluation Workshop will be held in Grainau, Germany. The Workshop is partly sponsored by EUMETSAT. The local organization of the workshop is led by Deutscher Wetterdienst (DWD). The workshop aims at enhancing cloud retrieval schemes and their applicability and a better characterization of their validity. We invite experts working with cloud parameter retrieval schemes from passive imagers (e.g. METEOSAT, AVHRR and MODIS), passive microwave (e.g. AMSR), and active lidars and radars observations (e.g. CloudSat, CALIPSO) to participate in the workshop and to contribute to the cloud parameter inter-comparison and validation activity that is connected to the workshop. More information on registration and submitting abstracts will follow in the second announcement.

Background

The Fourth Cloud Retrieval Evaluation Workshop (CREW-4) is a continuation of three earlier Workshops that were held in Norrköping, Sweden (2006), Locarno, Swiss (2009), and Madison, USA (2011). During these workshops algorithms for cloud parameter retrievals were discussed. A common database with cloud parameter retrievals from different product providers has been set-up. This database comprises cloud parameter retrievals from MSG, MODIS, AVHRR, POLDER and/or AIRS for a number of "golden days". A very important integral part of the CREW workshops are the discussions on inter-comparison and validation studies done with the data from the common database. In this way knowledge is gained on the behavior of the different retrieval schemes over different cloud conditions.

The main recommendations of the CREW in Madison were:

- Establish CREW as working group under the umbrella of GEWEX and/or CGMS;
- Address the focal points of the GEWEX-Cloud Assessment;
- Address research questions on level-2 cloud retrieval methods:
 - multiple layer cloud detection methods;
 - infrared-only cloud parameter retrieval methods;
 - microphysical properties of ice cloud models;
- Assessment of level-2 cloud properties retrievals and their error estimates;
- Improve on methods to aggregate level-3 cloud products;
- Enhance traceability and uniformity of level-3 cloud products;
- Establish sub-working groups addressing specific research topics;
- Involve other space agencies as well as participants from Asia and Australia.

Cloud Retrieval Evaluation Workshop-4

Based on the results and recommendations of the previous workshops, EUMETSAT decided to co-sponsor the CREW-4 Workshop. Similar to the previous workshops, CREW-4 will continue the inter-comparing cloud properties retrievals and validating them against cloud properties derived from the A-Train satellites. Besides, CREW-4 will address two new elements, firstly the assessment of cloud parameter error estimates, and secondly the evaluation of methods to derive level-3 products from level-2 products.

Algorithm providers are invited to provide instantaneous (level-2) cloud properties retrievals, either new datasets or updates of existing datasets, for the golden days (13, 17, 18, 22 June 2008 and 3 July 2008). The provided datasets will be included in the common database of cloud properties retrievals. This database currently comprises the cloud properties datasets from 15 different algorithms. The providers of cloud properties datasets have the option:

1. to update their algorithm descriptions;
2. to update of their cloud properties dataset for the golden days;
3. to submit new cloud properties datasets for the golden days;
4. to submit monthly cloud properties products (level-3) derived from one month of MODIS level-2 cloud properties.

The aim is to use the level-2 dataset for an inter-comparison of cloud property retrievals and their error estimates, both polar and geostationary satellites (SEVIRI, AVHRR onboard NOAA 18 and MODIS). As independent validation dataset the main sources of information will be the cloud properties obtained from CLOUDSAT and/or CALIPSO observations and Cloud Liquid Water Path observations from passive microwave instruments (e.g. AMSR).

In addition, algorithm providers are invited to derive, and provide, level-3 cloud properties products using the one month reference dataset of MODIS level-2 cloud retrievals that can be downloaded from the common database. The aim is to compare the level-3 cloud properties products to quantify the uncertainties due to the transition from level-two cloud retrievals to level-three cloud products.

The conference is organized by DWD and co-sponsored by EUMETSAT. The conference will be held in Grainau, Germany. Please note that the workshop may be subject to a small fee, which is estimated to be below 100 € participant.

More information on the 4th Cloud Retrieval Evaluation Workshop can be found at:

<http://www.icare.univ-lille1.fr/crew>

Workshop Topics

- *Topic 1: Instrument calibration*
- *Topic 2: Cloud detection and parameter retrievals from active sensors*
- *Topic 3: Cloud detection and parameter retrievals from passive sensors*
- *Topic 4: Sensitivity studies*
- *Topic 5: Aggregation methods*
- *Topic 6: Assessment of cloud parameter retrievals and their uncertainty estimates*

Uploading Datasets

Providers of cloud parameter datasets are invited to provide their newly developed or modified retrievals to the common database of CREW. This database is opened up for the (inter)-comparison and validation studies of CREW. The providers can upload (if necessary) their datasets and/or algorithm descriptions. This can be done through the FTP server that we set-up for this workshop. The registration procedure for the FTP server is given below. We kindly ask all datasets providers to also fill (and send us) the **Algorithms Form** that you will find at the end of this announcement.

Registration procedure FTP server

Now, a dedicated FTP space is available for the CREW project
<ftp://ftp.icare.univ-lille1.fr>
(thanks to Jerome Riedi, ICARE, and the University of Lille 1).

To be able to use the ftp site, you have to register on ICARE through the following form:
<http://www.icare.univ-lille1.fr/register/register.php>

When asked for a “*short description of your project*”, please fill:
Account request for the Cloud Retrieval Evaluation Workshop (CREW)

Once registered, you automatically become a member of the **CREW Working Group**, which gives you ftp access to the following hidden directory:
<ftp://ftp.icare.univ-lille1.fr/DATA/FS117/crew>

This dedicated 5TB space is available to the group only, in addition to all other resources available to ICARE users. This directory is hidden so it won't show up on 'ls' but you can directly go to the folder with:
`cd /DATA/FS117/crew`

Please upload your abstracts for CREW3 in following folder:
<ftp://ftp.icare.univ-lille1.fr/DATA/FS117/crew/upload/abstracts>
Please use the pdf or Microsoft word format, using the following naming convention:
`2011_CREW3_nameofauthor_abtract.format`

If you would like to provide an updated dataset or algorithm description, you may upload to:
<ftp://ftp.icare.univ-lille1.fr/DATA/FS117/crew/upload/retrieval>

For questions and comments related to access and use of the FTP site, the website, and the ICARE resources please send an email to Ulrich Hamann (**ulrich.hamann@knmi.nl**) and Jerome Riedi (**jerome.riedi@univ-lille1.fr**).

In addition, check the ICARE wiki pages for documentation of services and resources:
http://www.icare.univ-lille1.fr/wiki/index.php/Main_Page#ICARE_Services

Further Information

Co-Chairs:

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Location:

Place: : Grainau, Germany.
Conference: : 4-7 March 2014

Algorithm Form

Cloud Parameter Retrievals providers

Name/Names :

Affiliation :

Datasets (*tick for which dates you plan to provide an updated or new dataset*)

Updated data	New dataset	Date	Time slot for which retrievals are need at least
<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	13 June 2008	(12:00 - 15:30)
<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	17-18 June 2008	(22:15 - 01:45)
<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	22 June 2008	(10:30 - 12:15)
<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	3 July 2008	(10:00 - 12:00)

Parameters and satellites (*indicate with X for which satellite(s) and product(s) the data will be provided*)

Parameter name	MSG SEVIRI	NOAA AVHRR	MODIS Aqua	Other sat.	Comments or description (areas, native format, restrictions)
Cloud Fraction (CFR)					
Cloud Phase (CPH)					
Cloud Top Temperature (CTT)					
Cloud Top Height (CTH)					
Cloud Optical Thickness (COT)					
Particle effective radius (REFF)					
Cloud Water Path (CWP)					