

# CM-SAF TOA radiation status report

Didier . Caprion @ oma.be

Royal Meteorological Institute of Belgium



# What are we going to talk about...

## Overview

Input data

Output data

Future

- ★ Helicopter view of the input data:
  - ▶ CERES products:  
what is used at the RMIB and what is currently available ?
  - ▶ Gerb instruments and products:  
latest and near future developments.
- ★ Status of output data:  
the different versions of TOA products, what are they ?
- ★ A few words about tomorrow !

# CERES products:

Overview

Input data

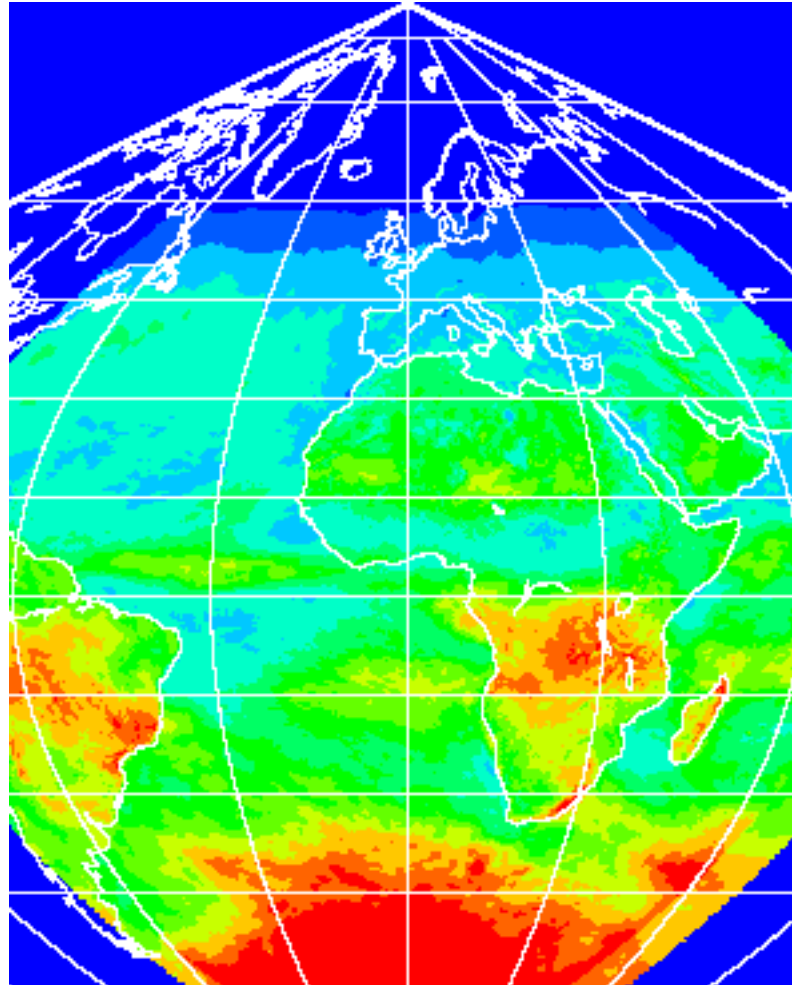
❖ CERES

❖ GERB

Output data

Future

*Reminder: why do we need CERES products ?*



# CERES products:

Overview

Input data

❖ CERES

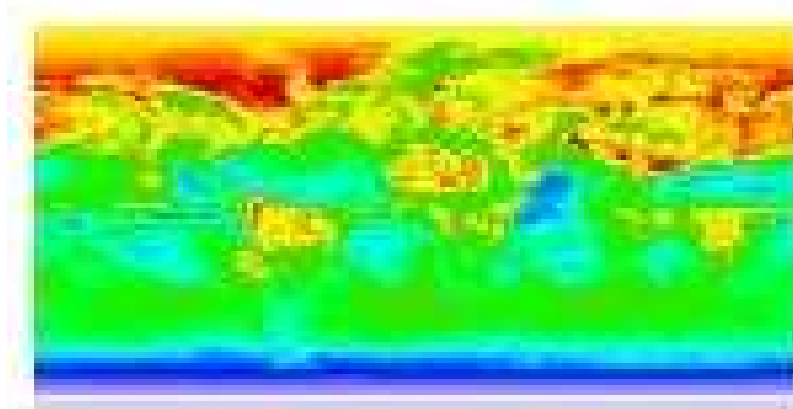
❖ GERB

Output data

Future

*What are the CERES products used in the CMSAF TOA products ?*

★ ES9 data (Terra FM1 and FM2- Edition 1):  
fluxes already averaged according to MM, DM, MD with  
spatial resolution of  $2.5^\circ$  ( i.e. 250 km at the Equator)



# CERES products:

Overview

Input data

❖ CERES

❖ GERB

Output data

Future

*What are the available CERES products and for which period ?*

- ★ ES9 (Terra FM1 and FM2 - Edition 1):  
from March 2000 till February 2007  
be careful: since December 2005 only the CV edition
- ★ SRBAVG (Terra FM1 and FM2 - Edition 2):  
from January 2004 till October 2005  
better resolution (only 1°) BUT not a long time series  
yet !!!

## *What about GERB instruments ?*

- ★ 2 instruments in space:  
GERB 2 on Meteosat 8 and Gerb 1 on Meteosat 9
  - ▶ GERB 1:  
operating since July 2006 and will become prime instruments the 24th of April 2007
  - ▶ GERB 2:  
shall be switched off the 10th of May 2007

currently GERB 1 is switched off and GERB 2 is operating only from 2:30 am till 8 pm

Overview

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Input data

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❖ CERES

❖ GERB

Output data

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Future

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## *What about GERB data ?*

- ★ GERB 2 data:  
*released*  
processing until it is switched off  
reprocessing from February 2004 till now !
- ★ GERB 1 data:  
*not released*  
processing from May 2007 on

*Why ?*

# GERB

Overview

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Input data

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❖ CERES

❖ **GERB**

Output data

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Future

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*2 reasons:*

- ★ Reprocessing of GERB 2 and processing of GERB 1+2 in parallel:

TOO HEAVY

- ★ No release on GERB 1 data

Then: **priority on GERB 2 data**



# TOA products

Overview

Input data

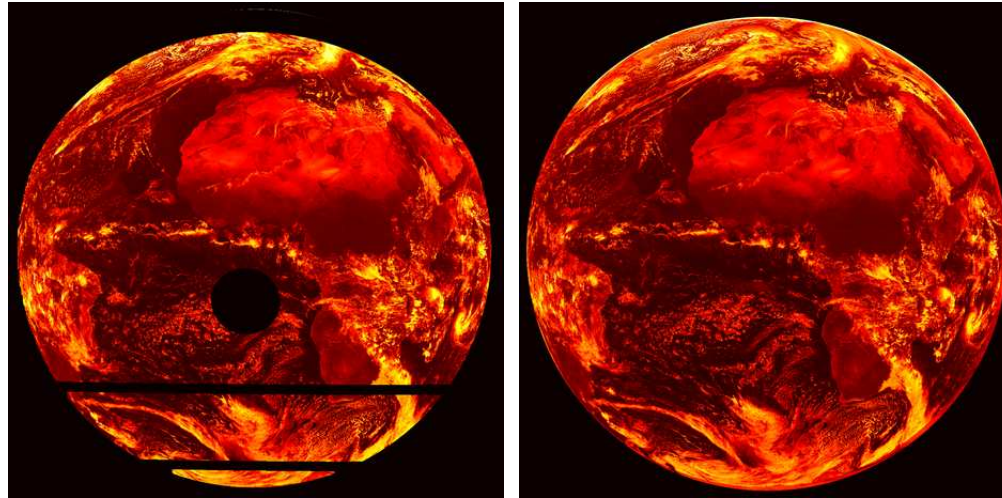
Output data

❖ Albedo

❖ Flux

Future

## ★ Albedo at TOA (STA):



Available from both GERB and GERB-like data since April 2005

No reprocessing planned so far with GERB released data !  
New chain to provide in April 2007 both GERB-like data from Meteosat 8 and 9, currently in test

# TOA products

Overview



Climate Monitoring SAF Monthly Mean TOA Fluxes for 200612



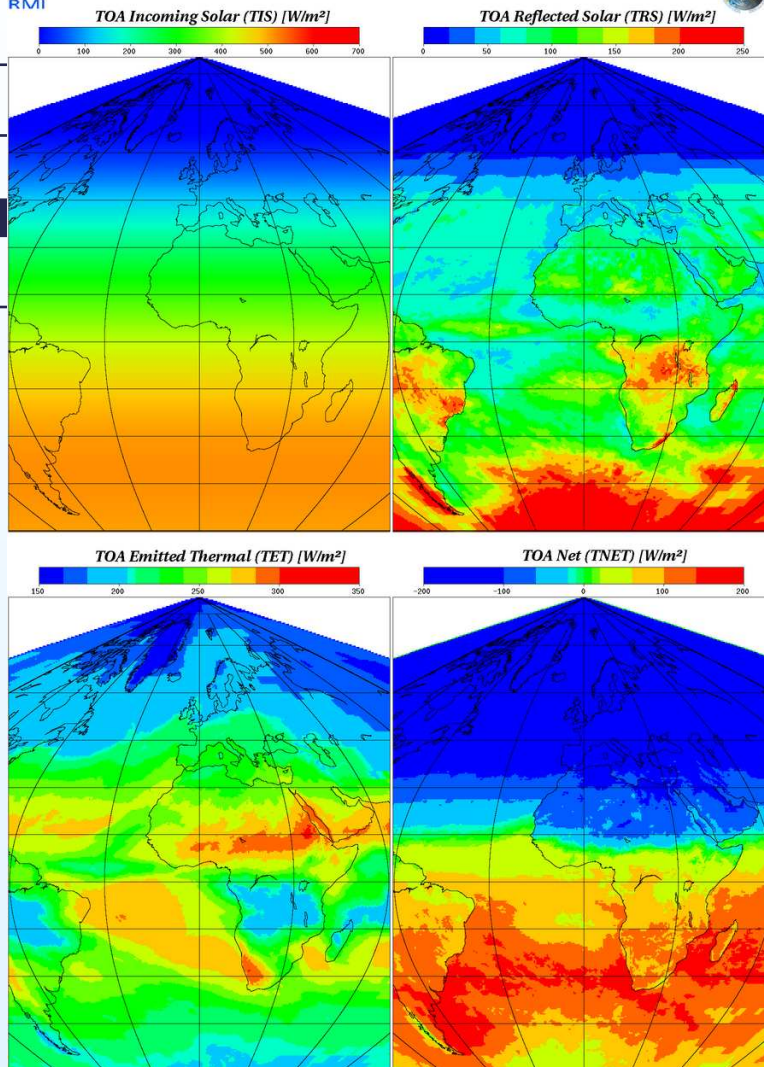
Input data

Output data

❖ Albedo

❖ Flux

Future



Three versions:

**100:**

From February 2004 to March 2006  
 GERB 2 not released data, *Steven's projection*

**110:**

From April 2006 to October 2006  
 GERB 2 released data, missing thermal correction

**120:**

From January 2006 to December 2006  
 GERB 2 released data, true equal area projection and thermal correction included

## And now ?

Overview

Input data

Output data

Future

- ★ Auxiliary chain for GERB-like from Meteosat 9  
⇒ products STA
- ★ Reprocessing of GERB 2 released data from February 2004 to April 2007  
⇒ products 120
- ★ Processing of GERB 1 *preliminary* data from May 2007 to ???  
⇒ products ???
- ★ Aerosol products  
already processed ⇒ products ???