

CM-SAF TOA radiation ops status report

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What are we going to talk about...

Overview

Teams

Infrastructure

Data

Future

- ★ Current situation:
 - ▶ Teams: GERB and CMSAF.
 - ▶ Infrastructure.
 - ▶ Products: what is currently available ?
- ★ A few words about tomorrow !



GERB team at the RMIB

Overview

Teams

❖ GERB

❖ CMSAF

Infrastructure

Data

Future

- ★ 3 scientists + 1 operator:
 - ▶ developing algorithms
 - ▶ running real-time processing
 - ▶ IT jobs
- ★ a PhD student: retrieval of aerosol optical depth over land
- ★ and Steven Dewitte



CMSAF team at the RMIB

Overview

Teams

❖ GERB

❖ **CMSAF**

Infrastructure

Data

Future

- ★ 2 scientists (Nicolas Clerbaux and I)
 - ▶ methods (average, merge, intercalibration of data...)
 - ▶ processing
- ★ and Steven Dewitte



Infrastructure

Overview

Teams

Infrastructure

❖ gerb

❖ cmsaf

Data

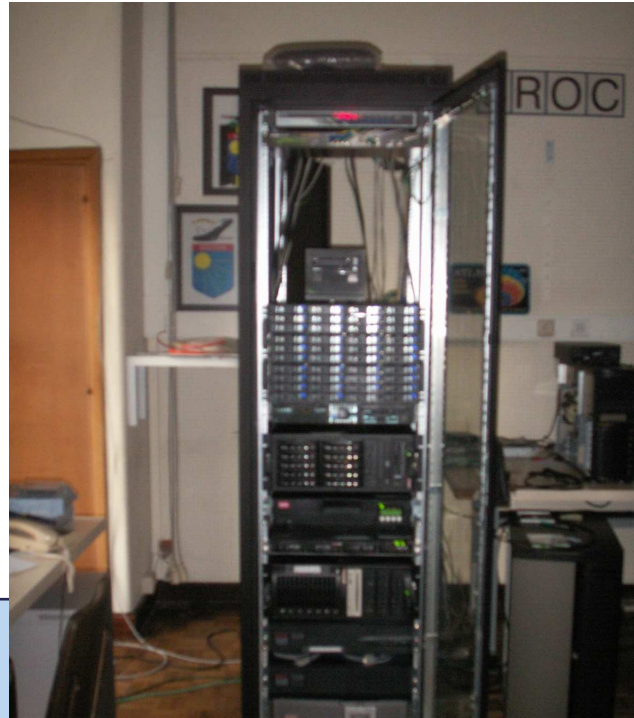
Future

All in-house processing (i.e. GERB and TOA CMSAF) done
with **OUR OWN** computers:
no IT department dependency !

Infrastructure

Current situation

- GERB
 - ▶ 2 linux machines: processing and reprocessing
 - 2 dual-core cpus per computer
 - ▶ 1 file server: 12 TB
 - ▶ 1 ftp/http server
 - ▶ 2 LTO reader/writers



Infrastructure

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❖ gerb

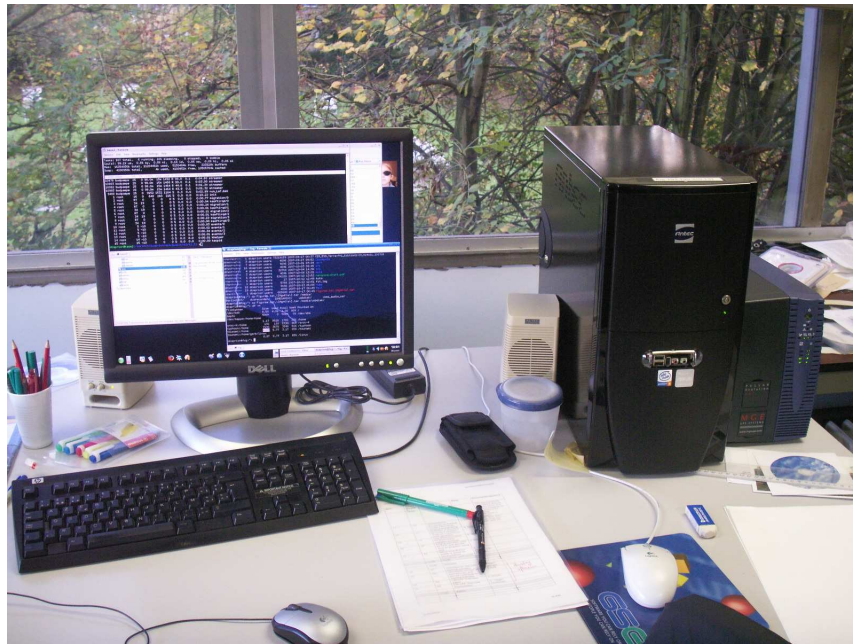
❖ cmsaf

Data

Future

Current situation

- CMSAF
 - ▶ 1 dual-core linux machine with 1.2 TB (4 last months archive)



What are the input data available ?

Overview

Teams

Infrastructure

Data

❖ input data

❖ Albedo

❖ Flux

Future

- ★ CERES: ES9 from March 2000 till August 2007
- ★ GERB:
 - GERB 2 released from Feb 2004 till April 2007
 - GERB 1 on op since May 2007
 - currently off: eclipse season
- ★ GERB-like:
 - currently from MSG 9

TOA products

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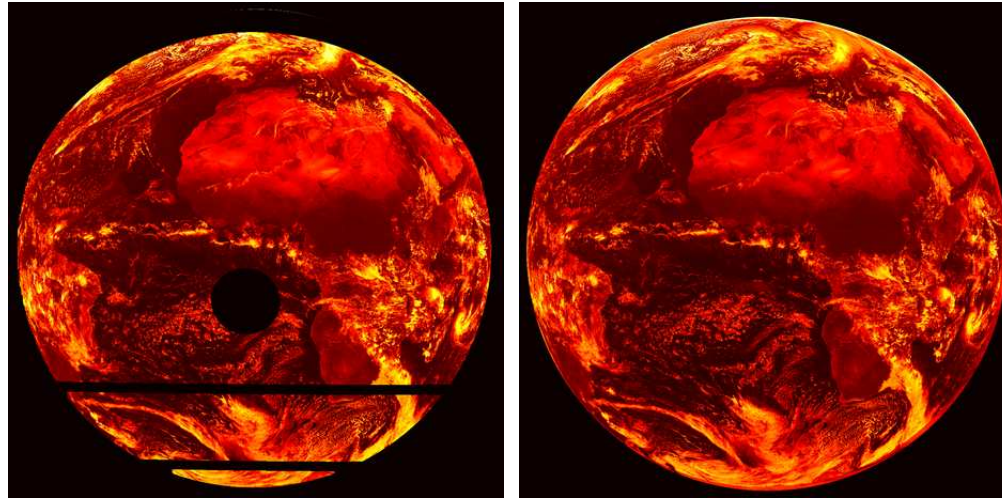
❖ input data

❖ 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 !
Currently provide only GERB-like data.

TOA products

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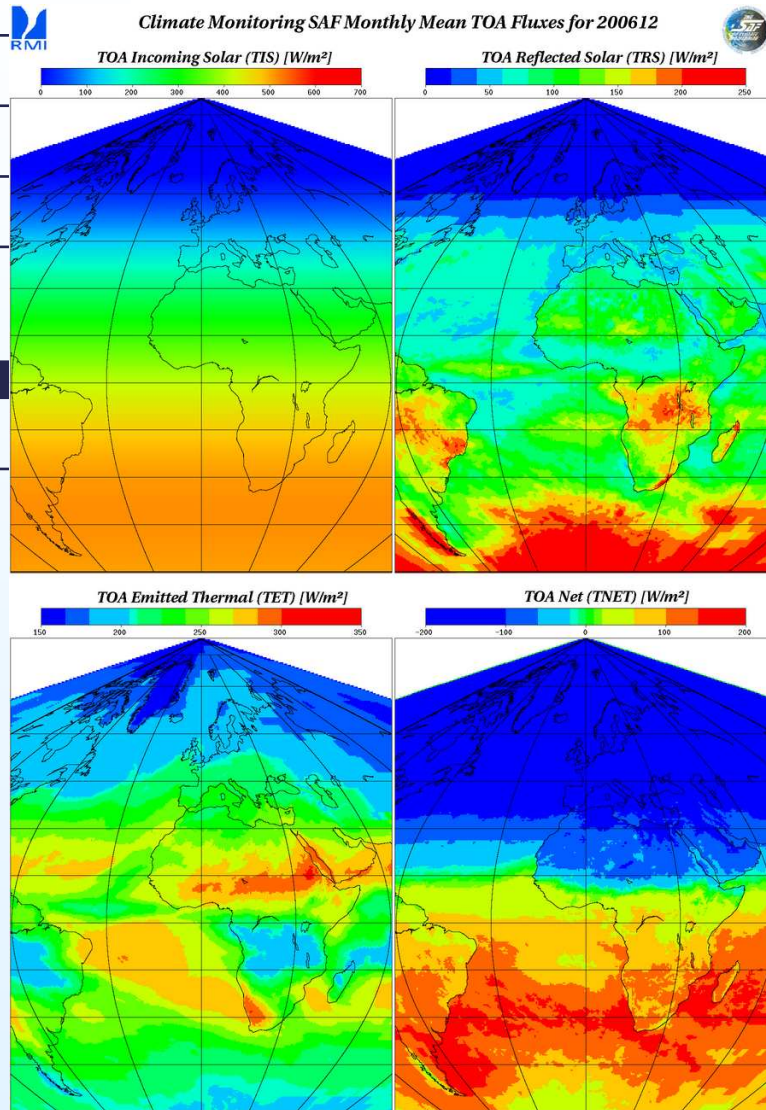
Data

❖ input data

❖ Albedo

❖ Flux

Future



Four 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 February 2004 to April 2007
GERB 2 released data, true equal area projection and thermal correction included

300:

From May to now on
GERB 1 data, true equal area projection and thermal correction included

And now ?

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Future

- ★ Intercalibration of GERB1 and GERB2 data thanks to Spring 2006 till Spring 2007 data: **influence of spectral response**
 - ⇒ recipes to merge 120 and 300 products
- ★ Average of RMIB cloud properties
- ★ Aerosol products
 - optical depth products and radiative forcing products
- ★ Processing of MVIRI data