RMIB GERB Processing (RGP)

Status report – 33rd GIST

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33th GIST meeting, ERB 2014, Toulouse, RMIB
RGP Overview

Inputs
- GERB level 1.5 from RAL
- SEVIRI level 1.5 from EUM

Processings
- LW separation
- Unfiltering
- Scene identification
- ADMs
- Various spatial and temp. processings
  - to combine GERB and SEVIRI
  - tuning of the geolocation
  - resolution enhancement

Outputs
- Level 2 solar and thermal fluxes at TOA
- 3 formats:
  - ARG: Averaged Rectified Geolocated (45km, 17', no correction of PSF)
  - BARG: Binned Averaged Rectified Geol. (45km, 15', PSF corrected)
  - HR: High Resolution (9km, 15', PSF corrected)
RMIB GERB Processing status

- **G1_SEV2**: GERB-1 remained “prime” as long as possible. Data processed until 13th Feb. 2013 but not (yet) edition during (and after) the move (17 Jan. 2013 onward).

- **G3_SEV3**: processed and data distributed as “CalVal” (V003 was used), see ftp://gerb.oma.be in directory Archive/G3_CalVal (+README) until failure of GERB-3 on 27 April 2013.

- **GL_SEV3**: generated without significant problem except a SEVIRI decontamination 1-9 July 2013 (Met-8 took over). Also spacecraft command problem on 18 August 2013 affecting 13 repeat cycles.

- Back to GERB1 -> see **G1_SEV3 presentation**

- Activities toward **BARG and HR release** -> see Edward’s presentation (“filling”)

- Activities toward **GERB ED02 data record** -> see Helen’s presentation

- Software/ Hardware / ROLSS status -> see end of presentation
RMIB GERB / CMSAF activities status

• **Climate Monitoring SAF activities:**
  • SEVIRI/GERB dataset including clear sky fluxes (see illustration)
    → Beneficial for the GERB project (clear sky fluxes, aging, …)
    -> *See presentation on Friday*
  • MVIRI/SEVIRI/GERB dataset
  • MSG/SEVIRI AOD dataset

• **New EarthCARE « CLARA » activities:**
  RMIB working on
  • BBR unfiltering
  • BBR LW radiance-to-flux conversion
  • Mostly software delivery activities
  
  *See presentation of Florian Tornow (FUB) on Friday*
Future activities

• GERB Edition-2

• BARG and HR release
  • Complete the G2 and G1 reprocessing
  • Visual QA including stray light flagging
  • Reprocess CM SAF dataset and validation activities

• G1_SEV3
  • Try to issue a LW products asap
  • Reprocess 2013-2014

• Preparation to GERB-4 processing

• Try to submit something for Ops4MIPS
Software / Hardware / ROLSS status

• Reprocessing of BARG and HR ongoing with speed « only » 1/12, data still in HDF5 but with internal GZIP compression activated
• Hardware ready to process ED02
• Once almost final ED02 software version, RGP operational & backup computers can/will be updated (x3 to x??...)
• NetCDF routines ready to produce GERB level 2/3
• New GERB/CMSAF/CLARA file cluster (60 TB → 90 TB) fully redundant using glusterfs (SEVIRI input data on-line)
• New ROLSS (ftp, https, ssh servers) on virtual machine
  → one single location of GERB archive on glusterfs (mounted read-only on ROLSS)
  → no need anymore to copy TB of files for specific campaigns, just mount glusterfs dir
  → stability issues should now be fixed (leak in version of glusterfs client used on host)
• MSG/SEVIRI reception switch to DVB-S2 ongoing
  • 3 DVB-S2 systems ordered and received
  • 1 installed, 1 not working, 1 spare
  • will copy incoming XRIT data on glusterfs (remove SPF, except for network)
  • should be finalized for end 2014
Software / Hardware / ROLSS status

- Use of ECMWF cca for cloud optical depth inversion LUTs generation, possibility to use facilities for some heavy SEVIRI processing (LDA)
- +/- 100 registered ROLSS users
- CMSAF downloads
- SEVIRI downloads
- EUMETSAT orders

### Summary

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