

GGSPS status

GIST meeting, ECMWF

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Andy Smith, Martin Bates & GGSPS team



Outline

- Current system & purpose
- Current GGSPS team / funding
- Edition-1 data set overview
- Edition-2 development
- GERB-2 & 3 processing development
- Obs4MIPS monthly mean product

GGSPS system purpose

GGSPS = GERB Ground Segment Processing System

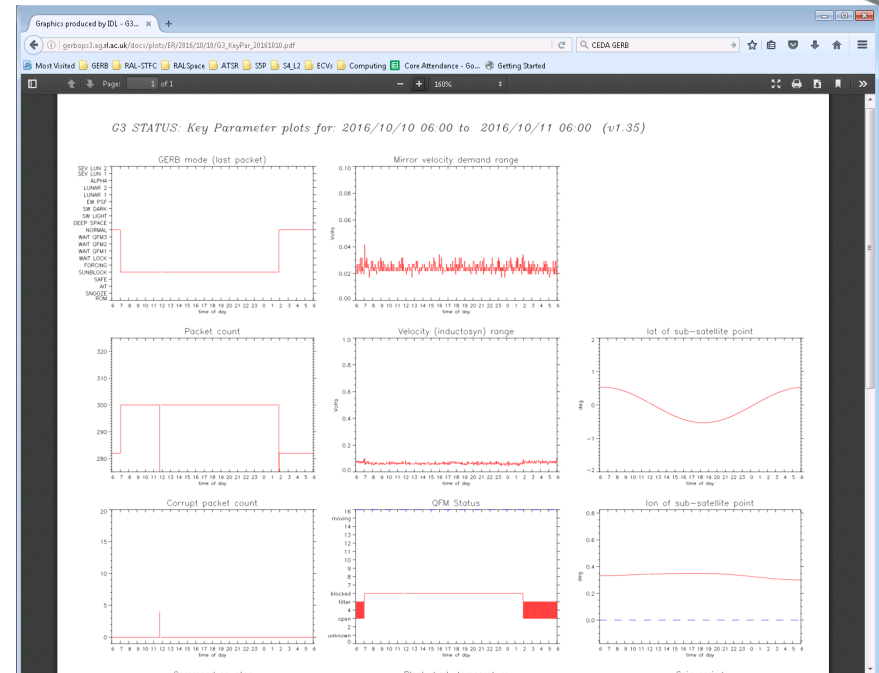
Level 0 data handling:

- receive raw data from EUMETSAT,
- archive L0 files

Process L0 to L1.5:

- Generate eng products & plots
- Generate L1.5 NANRG product
- Send L15N products to RMIB

(Archive RMIB's Level 2 products)



The main user archive of GERB Edition data is held by BADC/CEDA

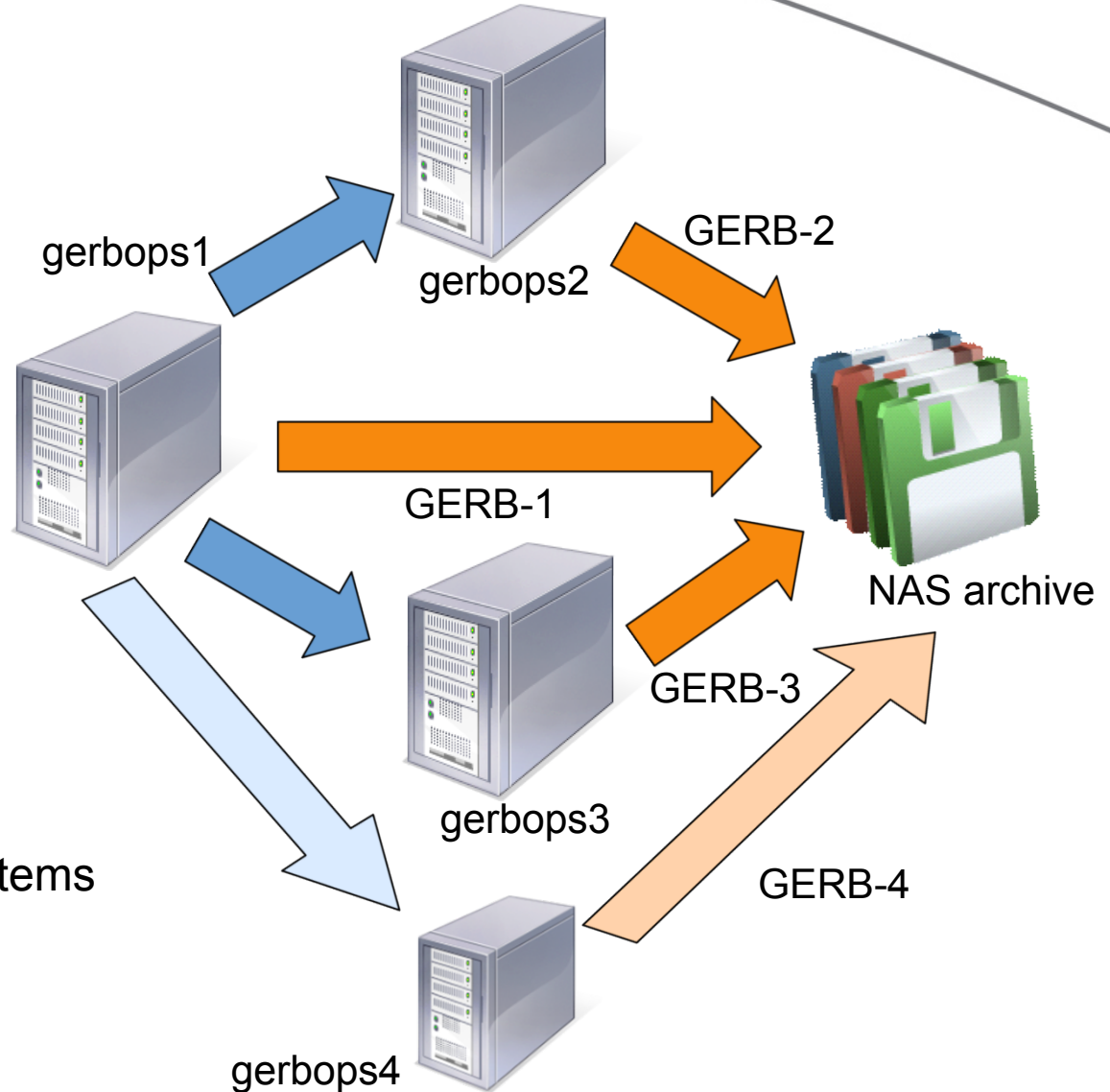
<http://www.ceda.ac.uk/>

The current GGSPS system



EUMETSAT

GERB-1, 2, 3
(& 4) raw data



gerbops<n> are all Linux systems
NAS: Linux, 66TB

Operations status

Instrument / system	Status
GERB-1	Off
GERB-2	Eng processing only. NORMAL mode IODC from Nov?
GERB-3	Prime operational instrument, processing to L1.5
GERB-4	In-Orbit Storage. 2 activations / year until 2018

Current team

Current “GERB-2&3 Operations” funding ~2 staff

GGSPS team in 2016:

- Operator (50%) Monica Kendall
- Systems management (20%) Brian Coan
- Developer / Operations (100%) Martin Bates
- Project Manager / Developer / Ops (30%) Andy Smith

Edition-1 data set

Instrument	Product	Start date	End date
GERB-2	L2 ARG	28-Mar-2004	10-May-2007
	L15 NANRG	17 Feb 2004	10-May-2007
GERB-1	L2 ARG	10-May-2007	17-Jan-2013
	L15 NANRG	25-Apr-2007	17-Jan-2013

L2 ARG products are available from the BADC

L15 NANRG products are available from the GGSPS

GERB-1&2 HR and BARG product releases are in preparation

Both products will be available from the BADC

Edition-2 preparation: Changes to Level 1.5 products

Processing changes to date:

- Counting data flagged automatically (GERB-2)
 - *already in place for GERB-1 ED01*
- Mirror pointing anomalies flagged automatically (per column)
- Stray light:
 - Bug fix and new data tables: recovers data around SL periods
 - Use sun angle rather than date to determine SL periods

Plus:

- Possible new calibration tables (cal varies with time)
- Minor bug fixes, e.g. confidence flag errors

Data coverage:

- Sweep for outstanding data reorders, i.e. unfilled gaps

GERB-3 & GERB-2 development

- Development of separate cal per mirror face?
 - Uneven ageing due to long-term mirror parking
- GERB-2 column spacing
 - Possible work to improve spacing when running on Earth sensor
- Awaiting input from science team

Obs4MIPS

- New netCDF product planned, discussed with CMIP
- Monthly hourly average, one degree gridded
- Reflected solar flux and emitted thermal flux
- Based on existing GERB Edition 1 L2 HR products
- Development at RAL pending completion of Edition 2 prep
 - N.B. limited development effort available!

Plans

- Operations: continue to process and archive data from
 1. GERB-3,
 2. GERB-2 over the Indian Ocean and
 3. GERB-4 when operational
- Coordinate Edition-1 release of GERB-1&2 HR and BARG products with BADC
- Prepare for Edition-2 Level 1.5 processing of GERB-1&2
- Obs4MIPS development
- Possible GERB-2 and 3 processing improvements