P2SC-ROB-WR-003-20100329 Weekly Report # 003	**P2SC Weekly report**	
Period Covered: Date: Written By: Released By:	Mon March 29 to Sun April 4 2010 April 6 2010 D. Berghmans D. Berghmans	Royal Observatory of Belgium PROBA2 Science Center
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1. PROBA2 Science Center Status

Carlos Cabanas was the P2SC operator during the period. The P2SC hardware and software functioned normally.

2010-03-30 LYRA Engineering Data Generator switched on. The LYRA engineering data generator (LYEDG) has been finalised by Boris Giordanengo. It was tested and switched on, on the P2SC operational server (p2sc-s2). Since then LYRA FITS files are automatically online at http://proba2.oma.be/lyra/data/eng/2010/03/30/ (and following directories).
2010-04-01 New Ancillary Data Processor finished A new ancillary data processor was finished that should lead to a smaller auxDB. Final tests will be done next week and then it will be installed.
2010-04-03 LYRA PTI modifications for set_heater addition LYRA PTI, PTBS, lyracomdb.db, lyraworkdb.db and lyraseqdb.db were modified when adding the set_heater command to the interfaces.

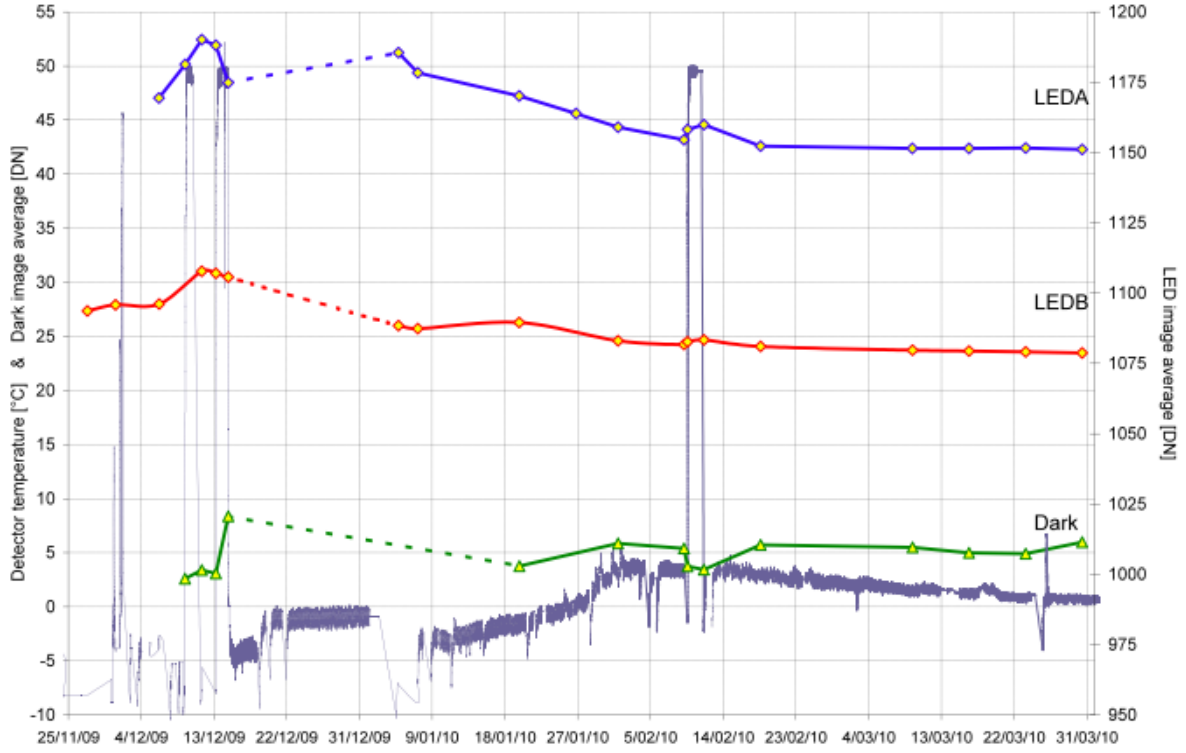
2. SWAP instrument status

The SWAP instrument functioned normally during the period. No more SEU were detected by the MCPM memory scrubber, the 'MCPM NB RECOV ER' remains fixed at 143

since March 18. The detector temperature ('SW HK T CF') has decreased on the order of 0.25C over the period and is now at 0.5C, presumably as a consequence of the increasing Sun-Earth distance.

2010-03-25 Nominal Imaging (IOS000101)
Table acquisition at typically 100s cadence with jumping over LARs.

2010-03-30 10:00 SREP_02_LED_Sequence (IOS00102)
The weekly LED calibration sequence was run, again showing no or very limited detector degradation (Image courtesy: JP Halain CSL).



2010-03-30 Nominal Imaging till the end of the period (IOS000102)
Specific Acquisition at a 100s cadence.

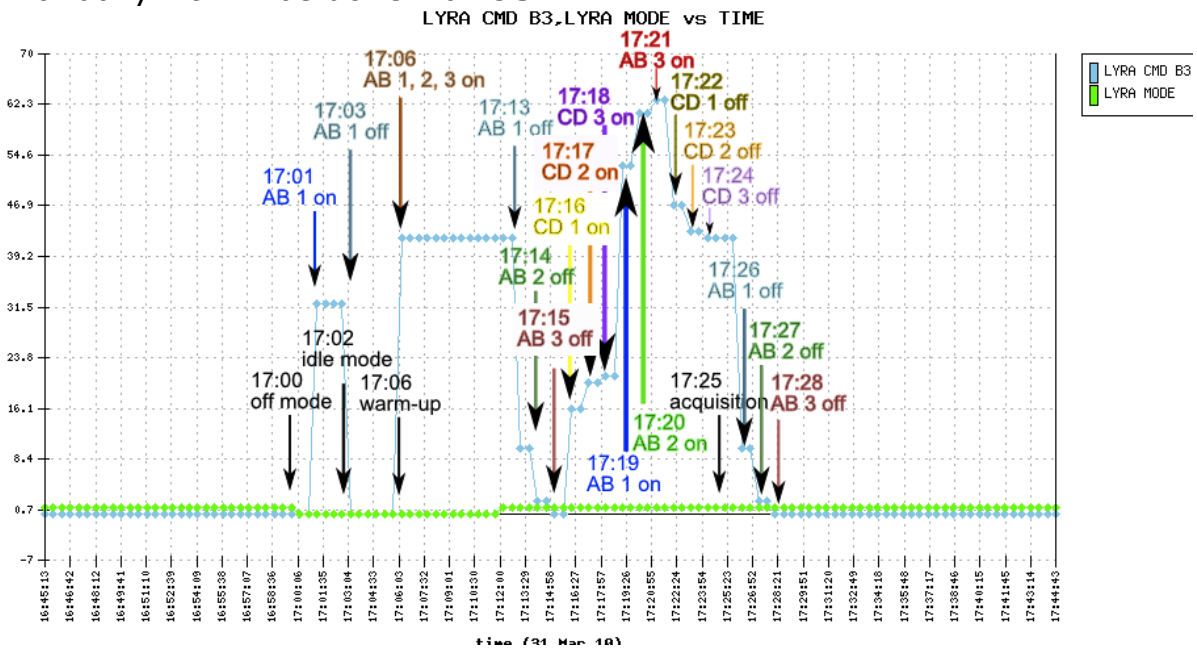
3. LYRA instrument status

The LYRA instrument functioned normally during the period. In order to limit the load on the initial deployment of the LYEDG, the LYRA cadence was changed from 100Hz to 1Hz on April 1.

2010-03-31 09:00 LREP_02_Calibration
Cancelled

2010-03-31 15:00 LREP_03_Backup
Cancelled

2010-03-31T17:00 LYRA IOS 00055: set_heater
The set_heater commands has been correctly executed. (see below for more info).So, from now on, it is not necessary to command the heaters manually. It will be done via IOS.



LYRA
00055
2010.03.31T14:42:50.000
2010.03.31T16:59:30.000
generated on 2010-03-31T14:42:50Z by ios.xsl version 1.1
2010.03.31T17:00:00.000 off
2010.03.31T17:01:00.000 set_heater ab 1 on
2010.03.31T17:02:00.000 idle
2010.03.31T17:03:00.000 set_heater ab 1 off
2010.03.31T17:04:00.000 set_heater ab 2 off
2010.03.31T17:05:00.000 set_heater ab 3 off
2010.03.31T17:06:00.000 warm_up 1000ms unit_2 unit_1 1800 off 0 open close
2010.03.31T17:13:00.000 set_heater ab 1 off
2010.03.31T17:14:00.000 set_heater ab 2 off
2010.03.31T17:15:00.000 set_heater ab 3 off
2010.03.31T17:16:00.000 set_heater cd 1 on
2010.03.31T17:17:00.000 set_heater cd 2 on
2010.03.31T17:18:00.000 set_heater cd 3 on
2010.03.31T17:19:00.000 set_heater ab 1 on
2010.03.31T17:20:00.000 set_heater ab 2 on
2010.03.31T17:21:00.000 set_heater ab 3 on
2010.03.31T17:22:00.000 set_heater cd 1 off
2010.03.31T17:23:00.000 set_heater cd 2 off

2010.03.31T17:24:00.000 set_heater cd 3 off
2010.03.31T17:25:00.000 acquisition 1000ms unit_2 unit_1 1800 off 0
2010.03.31T17:26:00.000 set_heater ab 1 off
2010.03.31T17:27:00.000 set_heater ab 2 off
2010.03.31T17:28:00.000 set_heater ab 3 off
2010.03.31T17:29:00.000 acquisition 1000ms unit_2 off 100 off 0
2010.03.31T17:30:00.000 acquisition 1000ms unit_2 off 200000 off 0

2010-03-31T17:30 LYRA IOS 00055: cadence set to 1000ms
In order to limit the load on the initial deployment of the LYEDG, the LYRA cadence was changed from 100Hz to 1Hz on April 1.

4. Science

2010-04-03 9:54 Solar Eruption
The biggest solar event during the period happened on April 3. It was a B1.7 flare (09:04-10:58) peaking at 9:54 UT. The beginning of the event is seen in channel 3 and 4 of http://proba2.oma.be/lyra/data/eng/2010/04/03/lyra_20100403-000000_lev1_std.fits. The event was also captured by SWAP in about 40 images (and a few more blurred ones). The event was accompanied by a filament disappearance, a post-eruption arcade, coronal dimmings, an EIT wave. The resulting CME was presumably the trigger for the strong geomagnetic storm April 5-6.

5. Data reception & discussions with MOC

2010-03-29 Midday SCOS checksum implemented
A checksum was implemented in the Redu SCOS system which should avoid aberrant housekeeping values being sent to P2SC. Since then, no more aberrant housekeeping values have been received at P2SC.

2010-04-01 Incomplete housekeeping data
2010-04-01T09:09:12 to 2010-04-01T14:06:06: Due to a scheduling problem, all stores were dumped in the air. All data from 2010-04-01T09:00:27z to 14:01:59z are lost.

2010-04-01T20:46:06 to 2010-04-02T01:33:37: Due to a scheduling problem, data (all stores) from 2010-04-01T20:36:29z to 2010-04-02T01:30:18z have not been dumped.

2010-04-01 Incomplete LYRA data

2010-04-01T08:48:29 to 2010-04-01T13:49:07: Due to a scheduling problem, all stores were dumped in the air. All LYRA data from 2010-04-01T09:00:27z to 14:01:59z are lost. 08:48:29 is the last LYRA lump data received on ground: no more data in the store. We received only 12 lyra lump data on pass 865.

2010-04-01T20:29:54 to 2010-04-02T01:13:50 Due to a scheduling problem, data (all stores) from 2010-04-01T20:36:29z to 2010-04-02T01:30:18z have not been dumped. 20:29:54 is the last LYRA lump data received on ground: no more data in the store. We received only 10 lyra lump data on pass 869.