P2SC-ROB-WR-014-20100614 Weekly Report # 014	**P2SC Weekly report**	
Period Covered: Date: Written By: Released By:	Mon June 14 to Sun Jun 20 2010 Wed Jun 20 2010 David Berghmans & Anik De Groof David Berghmans	Royal Observatory of Belgium PROBA2 Science Center
To:	LYRA PI, hochedez@sidc.be SWAP PI, david@sidc.be	http://proba2.sidc.be ++ 32 (0) 2 373 0 559
cc:	ROB DIR, ronald@oma.be ESA Redu, Etienne.Tilmans@esa.int ESA D/SRE, Joe.Zender@esa.int ESA D/TEC, Karsten.Strauch@esa.int	

1. Science

Space weather events

The period started right after an intensive flaring period from NOAA AR1081.
However, on the first day of the period (Monday June 14), NOAA AR 1081 was already on the solar west limb and could only produce one more C1.5 flare, peaking at 00:51. This was right away also the biggest flare of the whole period.

Towards the end of the period, NOAA AR 1082 increased in size and complexity, but only
produced a B5-flare on June 17 (peaking at 10:33).

Interesting eruptions:
June 16: Small eruption on South West limb around 03UT -> visible in SWAP movies! Associated to CME in LASCO C2.

June 20 around 01:50.
A filament eruption which might be sufficiently bright to see far off limb.

Outreach, papers, presentations, etc.

On Monday and Tuesday, the 1st Science Working Team meeting took place in La Roche en Ardenne (B). During this 2-days meeting, several presentations took place which can all be found at:
http://proba2.sidc.be/Presentations/20100614_SWTlaroche/
The minutes of the meeting are here:
http://proba2.sidc.be/Presentations/20100614_SWTlaroche/20100614_PROBA2_SWT_CESRA2010.html

During the whole week, an international radio astronomy meeting, CESRA 2010, took place in La Roche. A general SWAP&LYRA talk was given and can be found here:
http://proba2.sidc.be/Presentations/20100616_CESRA_PROBA2_ADG/

To be explored
From June 20 morning onwards, the LYRA Zr channel is increasing, while GOES does not show this trend. It could be due to a purely EUV (not X-ray) event. Investigation is on-going.

2. LYRA instrument status

Calibration
No calibration performed this week.

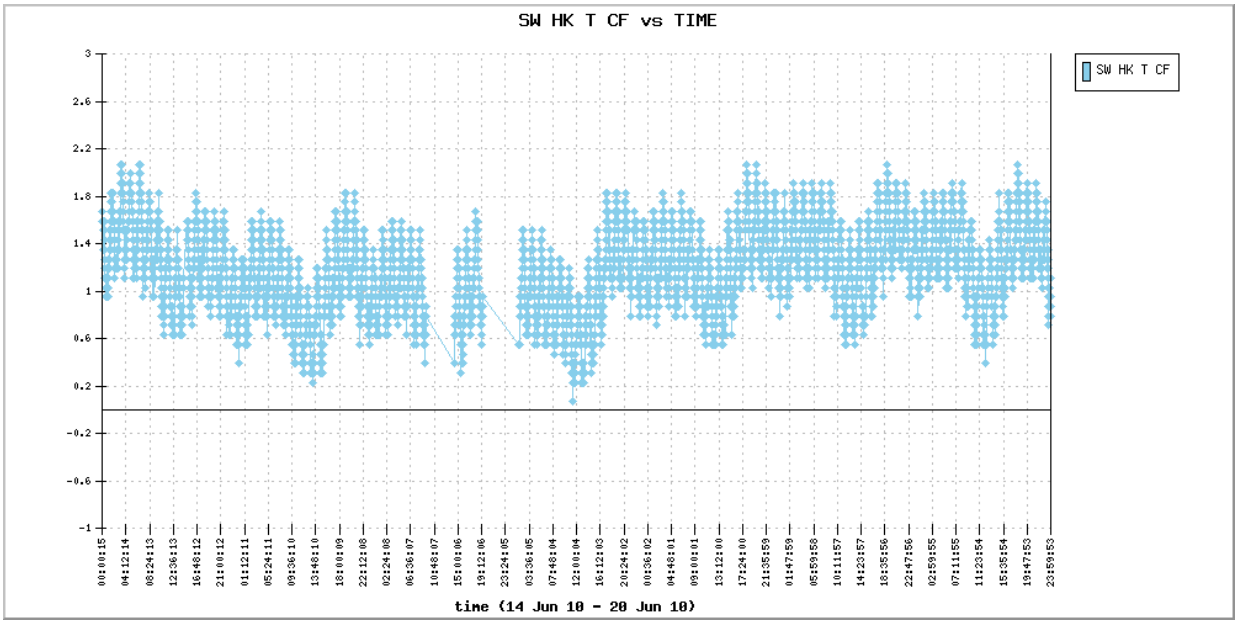
IOS & operations
No special campaigns. LYRA was observing with unit 2 at 50ms cadence.

3. SWAP instrument status

MCPM recoverable errors
Significant increase from 167 to 185 on June 14.

IOS & operations
No IOSs have been sent this week. No special calibrations planned.

SWAP detector and IIU temperature



SW Cold Finger temperature ranging from 0.2 to 2.2degrees C over the week.
IIU temperature was highest on Monday morning and from Thursday onwards, probably due to DSLP & TPMU acquisitions.

4. PROBA2 Science Center Status

David Berghmans was operator during this week.

The LYRA EDG was operated manually. SWAP daily movies were also created manually.
The reprocessing of all SWAP data since the beginning of the mission was prepared on a separate server.

The following tools were updated on the operational server: no updates this week.

5. Data reception & discussions with MOC

Passes
Completely missed passes:
* 1558 & 1561 on June 16: Redu confirmed on June 17 that these Svalbard downlink passes completely failed.
* Pass 1562 on June 17: also Svalbard downlink pass that was confirmed to have failed.
Missing files:

* LYRA_AD_1540 on June 14. These data were resent, in the tar file of pass 1557 but there is still a data gap left (see below).

Data coverage HK
Several data gaps due to the failed passes mentioned above: around 12 hours in total, spread over 3 days.

Data coverage SWAP
2 corrupt images in pass 1553 (June 16)
2 truncated images in BINSWAP_1571 (June 18)
Image numbers are missing in pass 1591 (June 20)
Missed passes on June 14, 16, 17 give rise to 1 big gap in the data on June 16 and a lower average cadence over the whole week:

Total number of images between 2010061400 and 2010062100: 5396
Highest cadence in this period: 100 seconds
Average cadence in this period: 112.07 seconds
Number of image gaps larger than 300 seconds: 1
Number of image gaps larger than 200 seconds: 112
Largest data gap: 128.33 minutes
Gap of 7700 seconds, just before image BINSWAP20100616112746000090272PROCESSED in BINSWAP_1559_RED3_2010.06.16T18.52.55.tar

Data coverage LYRA
Gaps due to missed passes on June 14, 16, 17.

6. APPENDIX Frequently used acronyms

ADP	Ancillary Data Processor
ADPMS	Advanced Data and Power Management System
AOCS	Attitude and Orbit Control System
APS	Active Pixel image Sensor
ASIC	Application Specific Integrated Circuit
BBE	Base Band Equipment
CME	Coronal Mass Ejection
COGEX	Cool Gas Generator Experiment
CRC	Cyclic Redundancy Check
DR	Destructive Readout
DSLP	Dual Segmented Langmuir Probe
EIT	Extreme ultraviolet Imaging Telescope
FITS	Flexible Image Transport System

FOV	Field Of View FPA Focal Plane Assembly
FPGA	Field Programmable Gate Arrays
GPS	Global Positioning System
HAS	High Accuracy Star tracker
HK	Housekeeping
ICD	Interface Control Document
IIU	Instrument Interface Unit
IOS	Instrument Operations Sheet
LED	Light Emitting Diode
LEO	Low Earth Orbit
LYRA	Lyman Yield Radiometer
LYTMR	LYRA Telemetry Reformatter (software module of P2SC)
LYEDG	LYRA Engineering Data Generator (software module of P2SC)
MCPM	Mass Memory, Compression and Packetisation Module
MOC	Mission Operation Center
NDR	Non Destructive Readout
OBET	On board Elapsed Time
OBSW	On board Software
PE	Proximity Electronics
PGA	Programmable Gain Amplifier
PI	Principal Investigator
P2SC	PROBA2 Science Center
PPT	Pointing, Positioning and Time (software module of P2SC)
ROB	Royal Observatory of Belgium
SAA	South Atlantic Anomaly
SCOS	Spacecraft Operation System
SEU	Single Event Upset
SOHO	Solar and Heliospheric Observatory
SWAP	Sun Watcher using APS detector and image Processing
SWBSDG	SWAP Base Science Data Generator
SWEDG	SWAP Engineering Data Generator (software module of P2SC)
SWTMR	SWAP Telemetry Reformatter (software module of P2SC)
TBC	To Be Confirmed
TBD	To Be Defined
TBW	To Be Written TC Telecommand
TPMU	Thermal Plasma Measurement Unit
UTC	Coordinated Universal Time
UV	Ultraviolet