
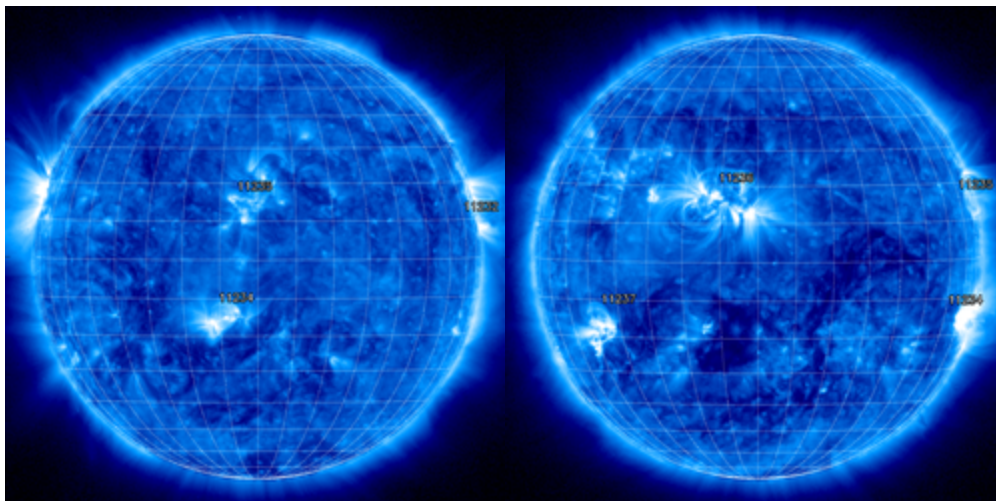


P2SC-ROB-WR-065-20110613 Weekly report #065	P2SC Weekly report	
Period covered: Date: Written by: Released by:	Mon June 13 to Sun June 19 2011 20 June 2011 Carlos Cabanas Carlos Cabanas	Royal Observatory of Belgium PROBA2 Science Center
To:	LYRA PI, marie.dominique@sidc.be SWAP PI, david@sidc.be	http://proba2.sidc.be ++ 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

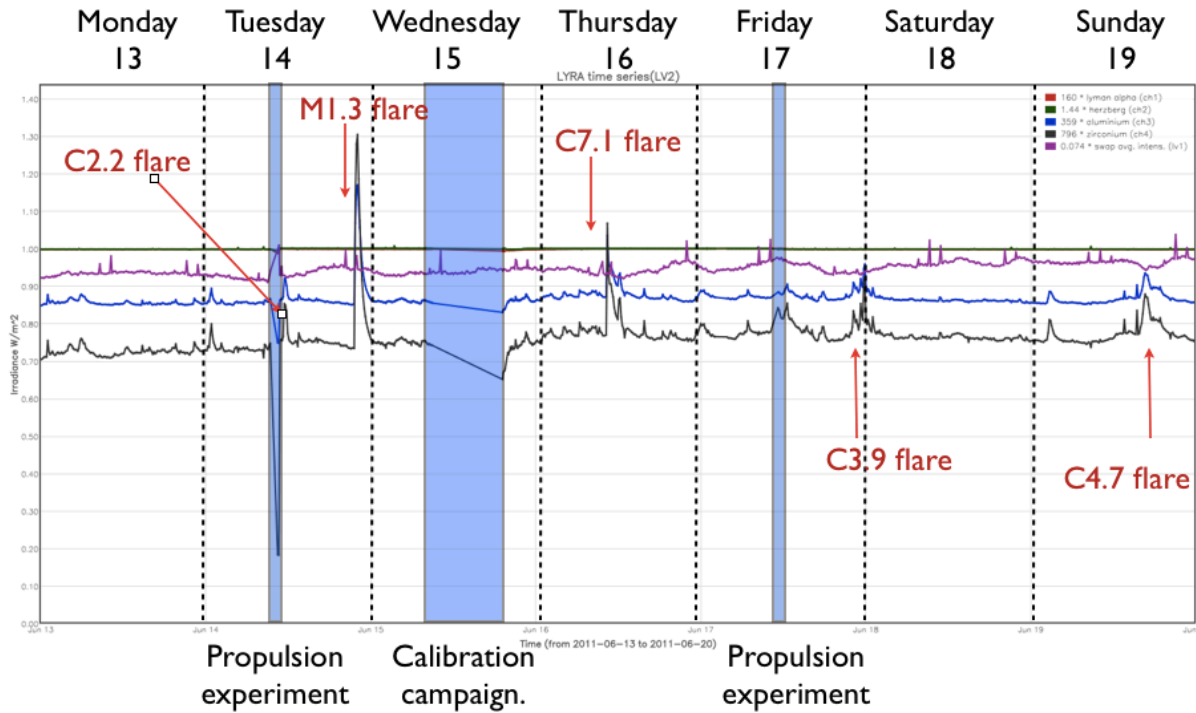
Solar & Space weather events



The two figures above show the active regions on SWAP images on June 13 and June 19 2011. Active Region 11236 was the originator of a M1.3 flare on Tuesday 14, the most relevant event of the week.

Below, the LYRA time lines of the week are shown. There are three gaps: two of them correspond to the propulsion experiment and the other one to a calibration campaign.

The most relevant flares of the week are labeled in red color.



Scientific campaigns

There were no special scientific campaigns during the week.

Outreach, papers, presentations, etc.

To be explored

2. LYRA instrument status

Calibration

A calibration campaign and a back up campaign took place on Wednesday 15th of June.

IOS & operations

Monday 13 June	Tuesday 14 June	Wednesday 15 June	Thursday 16 June	Friday 17 June	Saturday 18 June	Sunday 19 June
Nominal acquisition	Nominal acquisition + propulsion experiment	Nominal acquisition + LYRA calibration campaign + LYRA back up campaign.	Nominal acquisition	Nominal acquisition + propulsion experiment.	Nominal acquisition	Nominal acquisition

LYIOS00173	LYIOS00173	LYIOS00173	LYIOS00173	LYIOS00173	LYIOS00173	LYIOS00173
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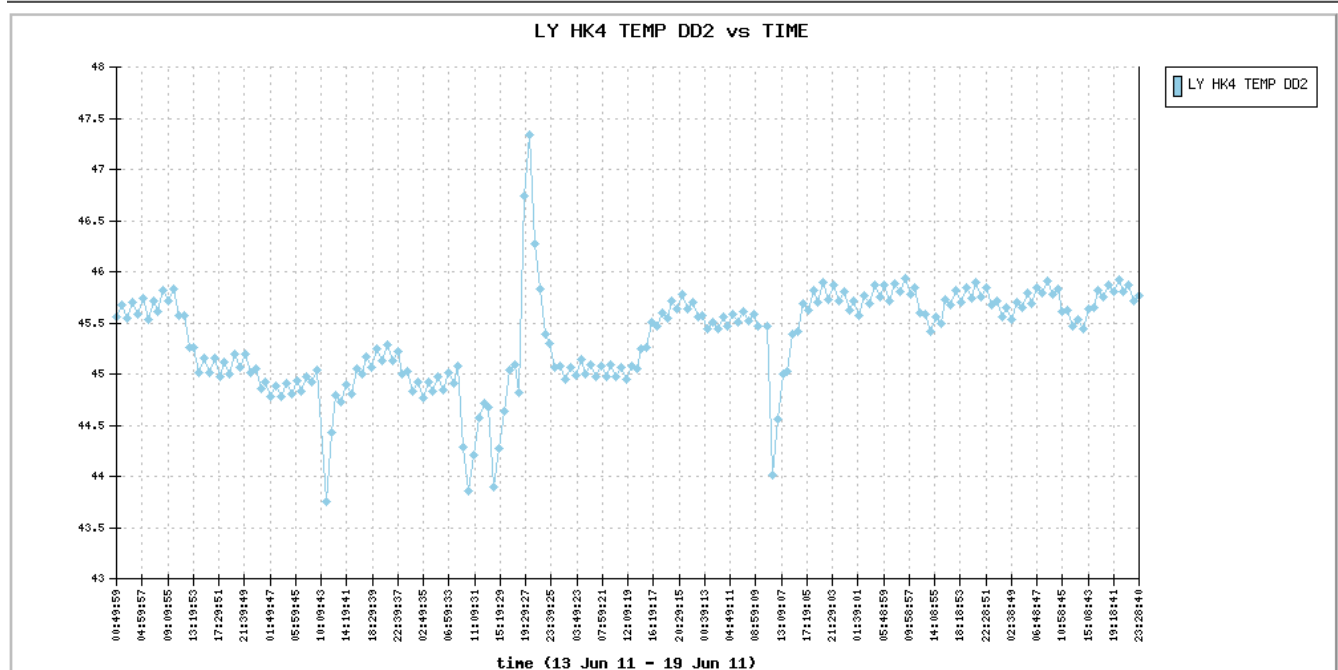
An ASIC Reload of LYRA occurred on 14/06/2011 around 11:42UT.

LYRA detector temperature

The LYRA detector 2 temperature (nominal unit) fluctuated between 43,5 and 47,5 degrees Celsius.

Effects were seen on :

- June 14: propulsion experiment in anti-velocity mode.
- June 17: propulsion experiment in anti-velocity mode.
- June 15: calibration + back up campaign.
- June 13,16,17,18,19: plasma payload.



To be explored

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3. SWAP instrument status

Calibration

There was a calibration campaign on Tuesday June 14.

MCPM recoverable errors

increased from 1304 to 1315 on June 19.

The number of MCPM unrecoverable errors is still 0.

IOS & operations

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
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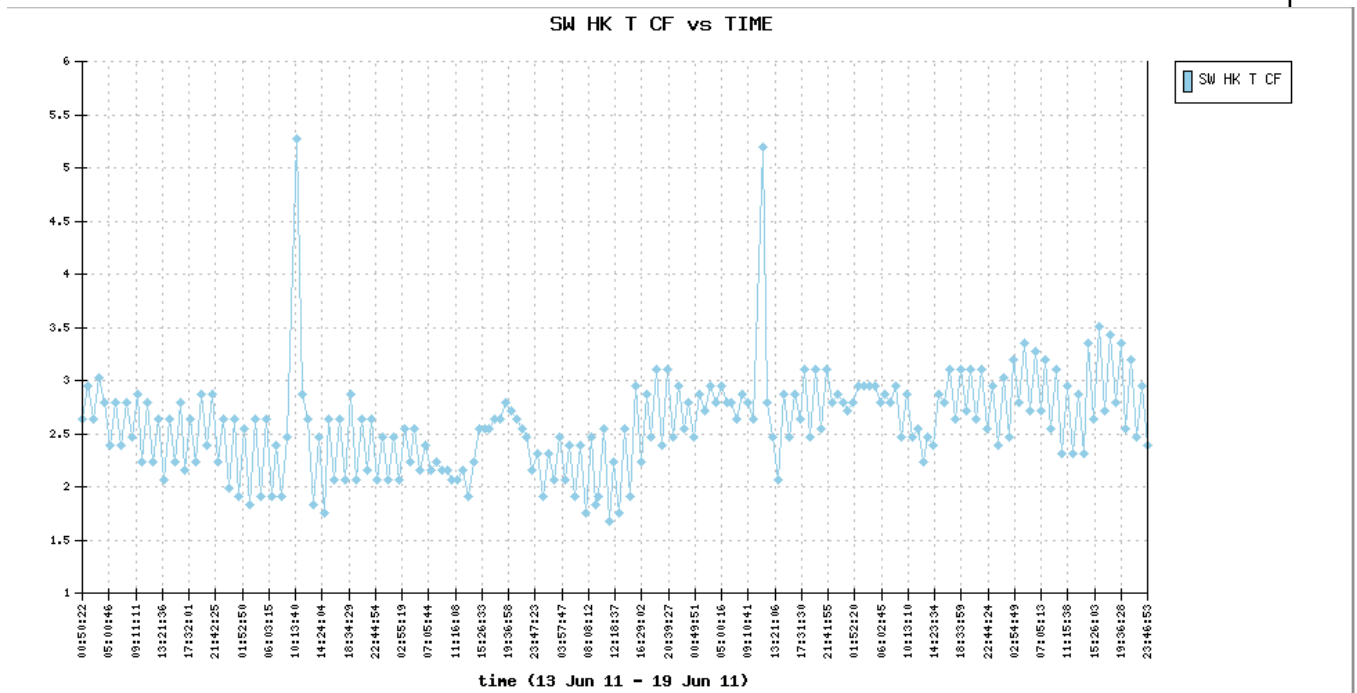
13 June	14 June	15 June	16 June	17 June	18 June	19 June
Nominal acquisition	Nominal acquisition + propulsion experiment + SWAP calibration campaign.	Nominal acquisition	Nominal acquisition + ESP experiment	Nominal acquisition+ propulsion experiment	Nominal acquisition	Nominal acquisition
SWIOS00309 782 images	SWIOS00309 767 images	SWIOS00309 727 images	SWIOS00309 768 images	SWIOS00309 694 images	SWIOS00309 774 images	SWIOS00309 664 images

SWAP detector temperature

The SWAP Cold Finger Temperature fluctuated between 1.5 and 5.5 degrees Celsius.

Effects were seen on :

- June 14: propulsion experiment in anti-velocity mode.
- June 17: propulsion experiment in anti-velocity mode.
- June 15: LYRA calibration + back up campaign.
- June 13,16,17,18,19: plasma payload.



To be explored

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4. PROBA2 Science Center Status

Carlos Cabanas was the operator during this week.

The following tools were updated on the operational server:

Software name	Update	Date	Comment

DCVC	r4123	15/06/2011	The DCVC will run in the pipeline.
PTI,PTBS, commanding databases.		17,18/06/2011	The 'set_cover' command has been implemented in the P2SC.

5. Data reception & discussions with MOC

Passes

On June 10,11 and 12 (and the first pass of June 13) ROB did not get any data coming from the Svalbard passes. (There was a jump on the year of the Svalbard Base Band and therefore all the sessions were recorded with a wrong date.)

On Monday 13 June, the problem was solved and the data was sent to ROB during June 13-14. All the missed packets were recovered.

Data coverage HK

Complete. (except for some minor gap)

Data coverage SWAP

Some corrupted images:

* From BINSWAP_4859_SVA1_2011.06.14T14.18.58.tar:

- 2011-06-14T14:34:08 -> BINSWAP201106111935320000339697PROCESSED

* From BINSWAP_4860_SVA1_2011.06.15T08.06.34.tar:

- 2011-06-15T08:14:15 -> BINSWAP201106112231320000340404PROCESSED

- 2011-06-15T08:15:00 -> BINSWAP201106120129230000340471PROCESSED

- 2011-06-15T08:14:32 -> BINSWAP201106120032320000340426PROCESSED

* From BINSWAP_4877_SVA1_2011.06.16T07.36.31.tar:

- BINSWAP201106132250040000342091PROCESSED

* From BINSWAP_4902_RED3_2011.06.16T20.18.14.tar:

- 2011-06-16T20:24:45 - BINSWAP201106160442260000342703PROCESSED

* From BINSWAP_4915_RED3_2011.06.18T06.42.05.tar

- 2011-06-18T06:54:08 - BINSWAP201106180458010000343736PROCESSED

* From BINSWAP_4916_SVA1_2011.06.18T10.15.42.tar

- 2011-06-18T10:24:15 - BINSWAP201106180743010000343831PROCESSED

Statistics for complete week:

Total number of images between 2011 Jun 13 OUT and 2011 Jun 20 OUT: 5201

Highest cadence in this period: 30 seconds

Average cadence in this period: 116.85 seconds
Number of image gaps larger than 300 seconds: 3 (2 propulsion experiments + ESP test)
Largest data gap: 41.80 minutes

Data coverage LYRA

One corrupted packet:

* BINLYRA_4905_RED3_2011.06.17T04.12.07

The rest of the data are complete.

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
DSLPP	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
IU	Instrument Interface Unit
IOS	Instrument Operations Sheet
LED	Light Emitting Diode
LEO	Low Earth Orbit
LYRA	LYman alpha 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
SWAVINT	SWAP AVerage INTensity
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