
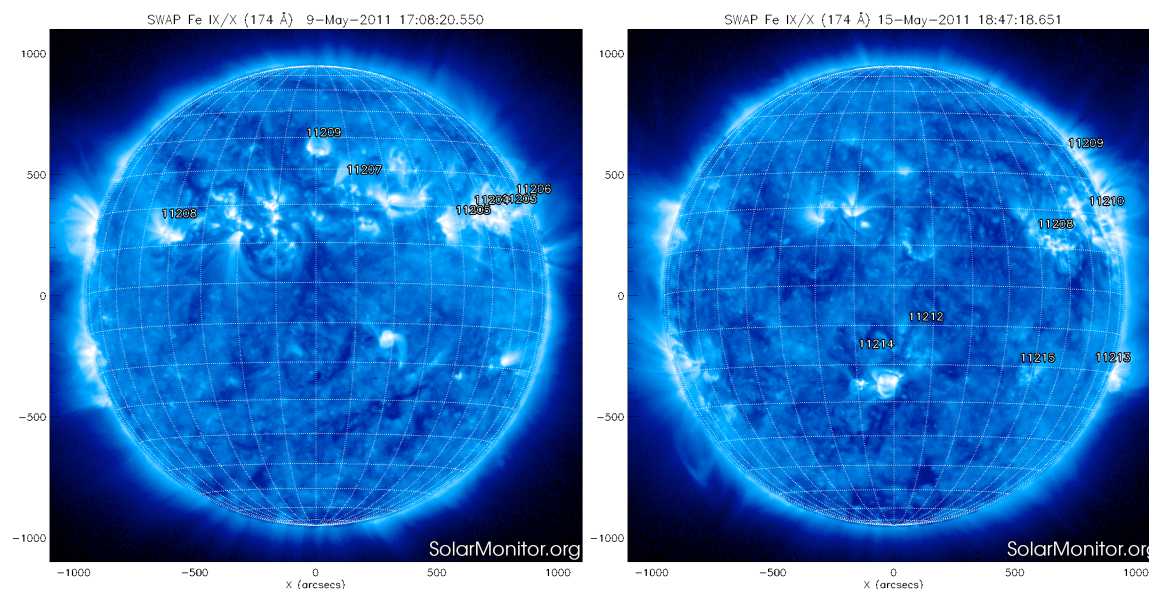


P2SC-ROB-WR-060- 20110509 Weekly report #060	P2SC Weekly report	
Period covered: Date: Written by: Released by:	Mon May 09 to Sun May 15 2011 Thu May 26 2011 Marie Dominique Anik De Groof	Royal Observatory of Belgium PROBA2 Science Center
To:	LYRA PI, marie.dominique@sidc.be SWAP PI, david@sidc.be	http://proba2.sidc.be ++ 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

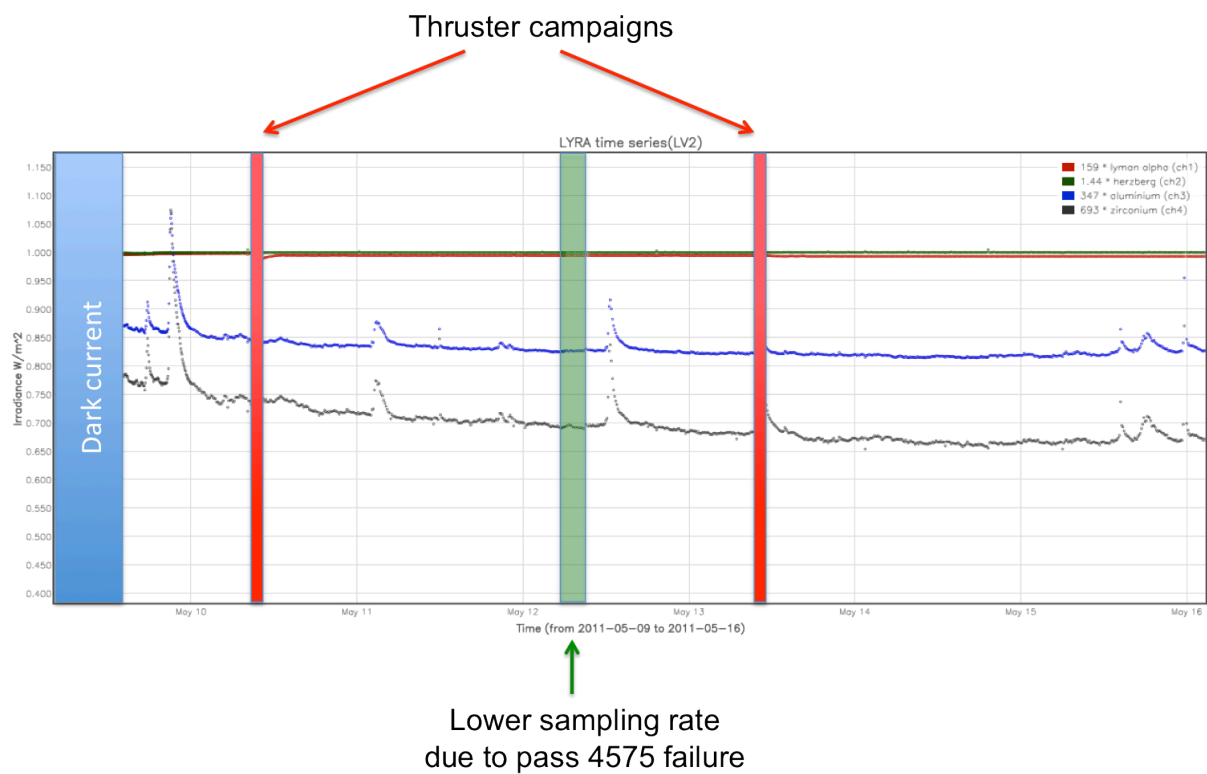
Solar & Space weather events



The two figures above show the active regions on SWAP images in the beginning and end of the reporting period. The week was globally quiet (a few B-flares, 6 C-flares), with as most noticeable flares a C5.4 on May 09, 21:00 and a C4.8 from AR 11208 on May 15 just before midnight. Both were associated to a CME observed by SWAP (see the one of May 09, below).



Lyra data for the whole week are plotted here-below, together with the few specific events that happened this week.



Scientific campaigns

/

Outreach, papers, presentations, etc.

Anik De Groof presented "PROBA2/SWAP & LYRA: Opportunities for Solar Physics & First Results" at the SOLAIRE Network meeting in Teistungen, Germany on May 13.

To be explored

/

2. LYRA instrument status

Calibration

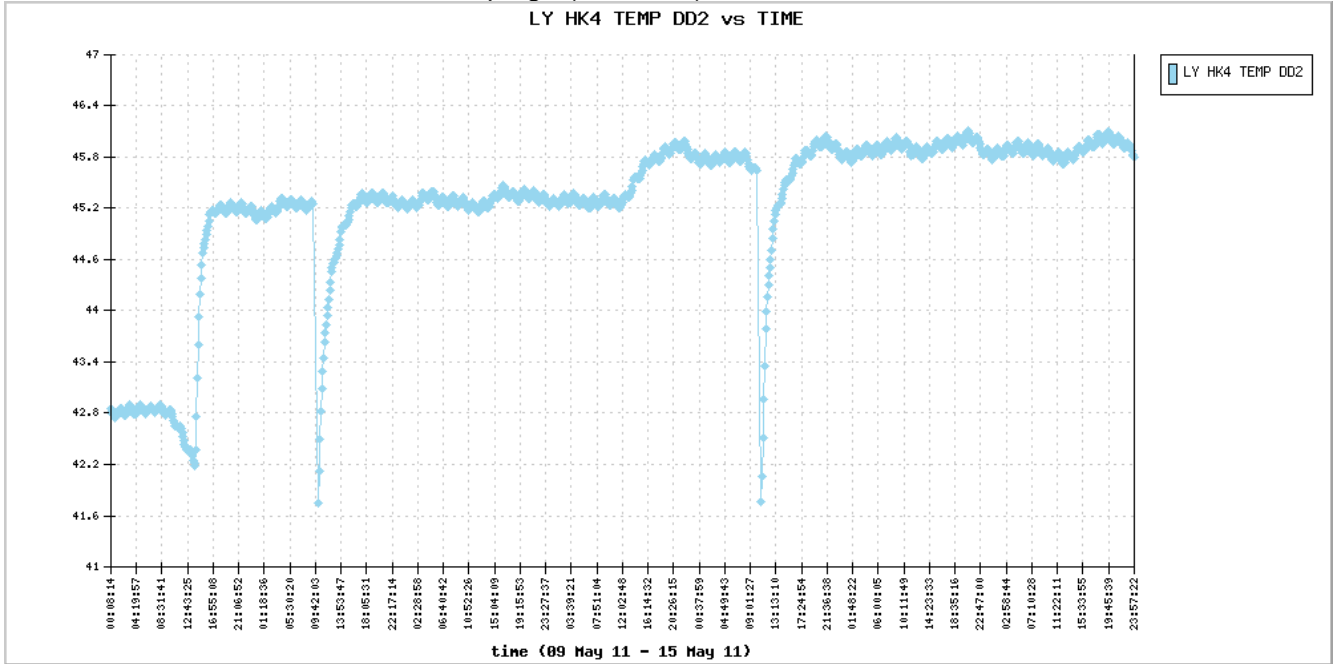
Lyra cover 2 has been closed from 2011-05-06 09:24 to 2011-05-09 14:00, producing a 3 days dark current measurement with unit2.

IOS & operations

Monday May 9	Tuesday May 10	Wednesday May 11	Thursday May 12	Friday May 13	Saturday May 14	Sunday May 15
Dark current with unit 2 till 14:00. Then, nominal acquisition (IOS0163 - 164)	Thruster campaign (IOS00164)	nominal acquisition (IOS00164)	nominal acquisition (IOS00164)	Thruster campaign (IOS00164)	nominal acquisition (IOS00164)	nominal acquisition (IOS00164)

LYRA detector temperature

The LYRA detector 2 temperature (nominal unit) fluctuated between 42 and 46 degrees Celsius. On May 09, the increase in temperature corresponds to the opening of cover 2. On May 10 and 13, effects were seen of the thruster campaign (LYRA off).



To be explored

/

3. SWAP instrument status

MCPM errors

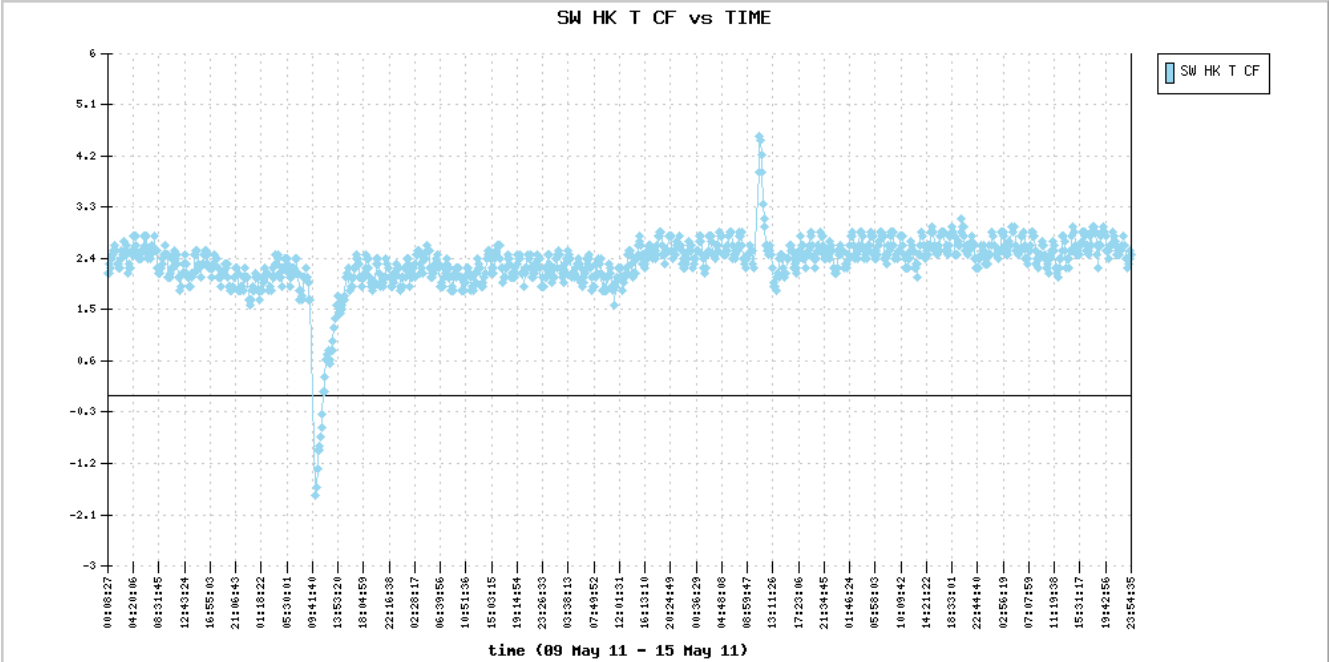
The number of MCPM recoverable errors increased from 1143 to 1156. The number of unrecoverable errors is still 0.

IOS & operations

Monday May 9	Tuesday May 10	Wednesday May 11	Thursday May 12	Friday May 13	Saturday May 14	Sunday May 15
Nominal acquisition since May 6	Thruster campaign	Nominal acquisition	Nominal acquisition	Thruster campaign	Nominal acquisition	Nominal acquisition
(IOS00291) 713 images	(IOS00293) 696 images	(IOS00293) 708 images	(IOS00293) 645 images	(IOS00293) 695 images	(IOS00293) 637 images	(IOS00293) 719 images

SWAP detector temperature

The SWAP Cold Finger Temperature fluctuated between 1.6 and 3.1 degrees Celsius. The influence of the thruster campaigns was clearly observed with excursions down to -2C on Tuesday May 10 (flight mode in velocity direction) and up to 4.5C on Friday May 13 (flight mode in anti-velocity).



To be explored

/

4. PROBA2 Science Center Status

Marie Dominique was operator during this week.

The following tools were updated on the operational server:

Software name	Update	Date	Comment
LY-QLV	4040	11 May 2011	bug with autoscale button has been fixed
PPT	4048	11 May 2011	Add a function which gives "horizon sub point"

5. Data reception & discussions with MOC

Passes

The Svalbard downlink pass SVA1#4575 (May 12) was missed (KSAT scheduling problems) and therefore no data was available. The telemetry store and the LYRA bounded store have been dumped on the next pass (RED3#4576). As agreed the previous week, dumped data were included in archives from pass 4576 (no re-extraction to build an artificial packet for pass 4575).

Extraction of pass 4587 (May 13) data was not immediately performed because the SCOS was not in use. Data have been transmitted to ROB on May 16.

Data coverage HK

Housekeeping data was complete throughout the week.

Data coverage SWAP

Statistics for complete week:

Total number of images between 2011 May 09 00T and 2011 May 16 00T: 4813

Highest cadence in this period: 120 seconds

Average cadence in this period: 125.67 seconds

Number of image gaps larger than 300 seconds: 47

(for most of them, due to the missed pass)

Largest data gap: 46.92 minutes (thruster campaign Friday May 13)

Data coverage LYRA

Up till May 09, 14:00, only dark signal was acquired. On May 12, from 06:05 to 09:35, we only have one sample out of two (missed pass => only the LYRA bounded store was dumped).

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
DSLPL	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
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