
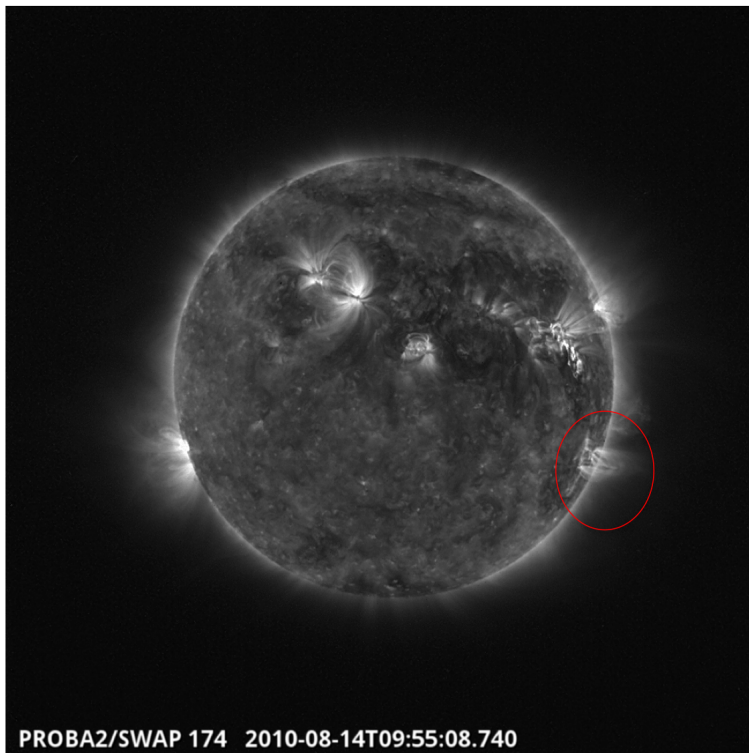


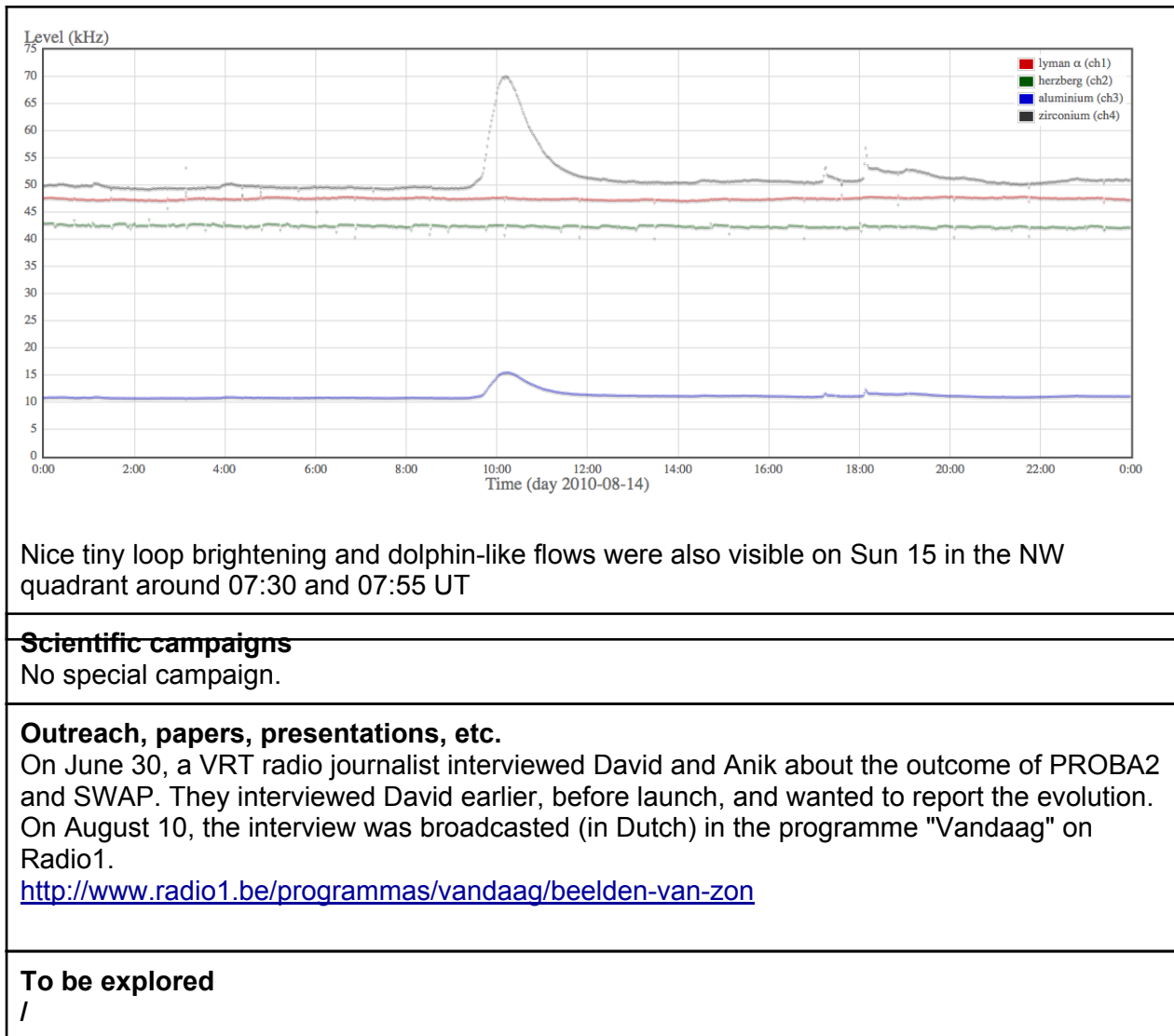
P2SC-ROB-WR-022- 20100809 Weekly report #022	P2SC Weekly report	
Period covered: Date: Written by: Released by:	Mon Aug 9 to Sun Aug 15 2010 Mon August 15 2010 Marie Dominique David Berghmans	Royal Observatory of Belgium PROBA2 Science Center
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1. Science

Solar & Space weather events

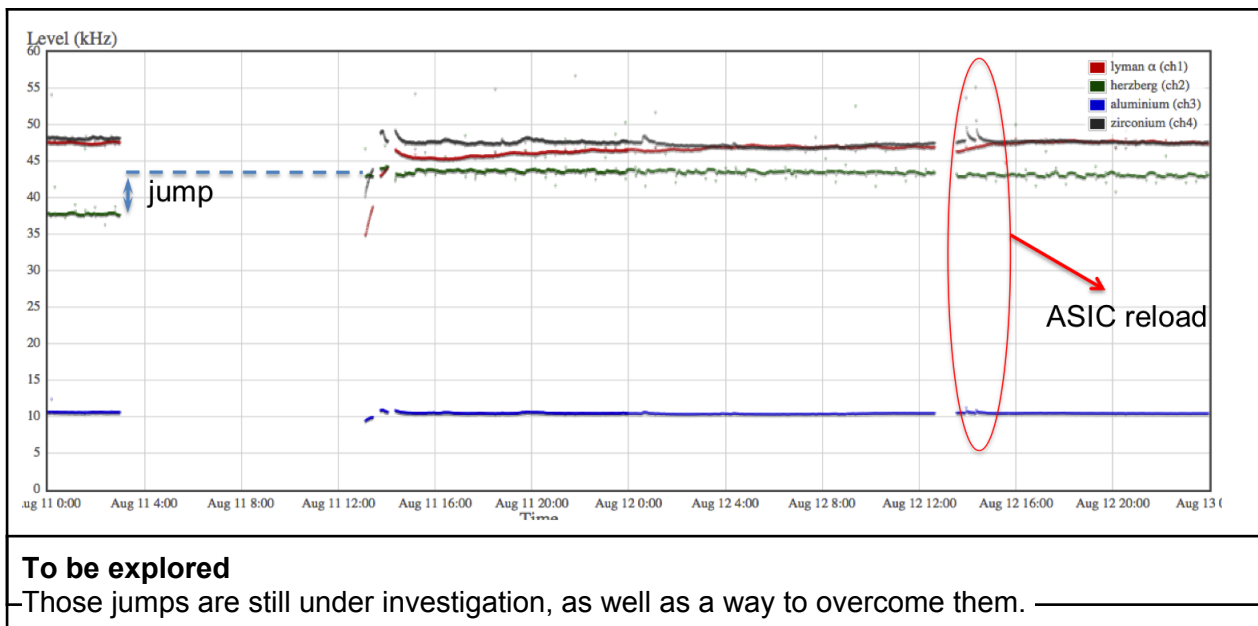
Most of the week was quiet. However flaring activity was observed during the weekend with both SWAP and LYRA (up to C5.4 flare). See, as an example, the eruption of Sat 14, 10:00.





2. LYRA instrument status

<p>Calibration</p> <p>Wednesday 11:</p> <ul style="list-style-type: none"> LYRA performed its shortened calibration sequence (vis LED during 1 orbit, UV LED during 1 orbit, dark current acquisitions) with all three units. LYRA also acquired 20 min of signal with units 1 and 3. At the end of this campaign, a jump was observed in Herzberg channel.
<p>IOS & operations</p> <p>Wednesday 11:</p> <ul style="list-style-type: none"> Both the calibration and the back-up campaigns were commanded with LYRA IOS 00078. <p>Thursday 12:</p> <ul style="list-style-type: none"> LYRA IOS 00079 was sent to close and open cover 2, in order to try recovering for the jump of Wed 11. ASIC was then reloaded. None of these operations had the expected result.



3. SWAP instrument status

MCPM recoverable errors MCPM NB RECOVER increased from 195 to 196 on August 12 at 12:22. The number of MCPM unrecoverable errors is still 0.
IOS & operations Thursday 12: <ul style="list-style-type: none"> An IOS (IOS 00155) was also sent to cover SWAP operations during the ESP campaign. This consisted in keeping SWAP on, acquiring housekeeping but not imaging, during 20 min.
SWAP detector and IIU temperature IIU temp stayed in the expected range. Effects were seen of LYRA calibration and bake-out and of DSLP & TPMU acquisitions.
Some statistics: Nb of corrupted images: 2 corresponding to corrupted CRC and 1 truncated packet.

4. PROBA2 Science Center Status

Marie Dominique was operator during this week.

The LYRA EDG was operated manually.

SWAP daily movies were also created manually.

The following tools were updated on the operational server:

Software name	Update	Date	Comment
SWBSDG	r3518	2010/08/11	fixing faulty pixel map

			(swap_pmc_20100113_152900.fits)

The ADP failed four times when processing the ancillary data packets, due to a locking of the database. This resulted in a gap in the ancillary data timeline. The packets integrity was not the cause of the failure. All these packets have been re-processed successfully and the gaps have been filled on the ancillary data viewer.

5. Data reception & discussions with MOC

Passes No failing pass all over the week
Data coverage HK No missing packet all over the week
Data coverage SWAP No missing packet all over the week Statistics for complete week: <i>Total number of images between 2010080900 and 2010081600: 4379</i> <i>Highest cadence in this period: 120 seconds</i> <i>Average cadence in this period: 138.12 seconds</i> <i>Number of image gaps larger than 300 seconds: 2</i> <i>Largest data gap: 24.48 minutes</i>
Data coverage LYRA All LYRA 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
DSLIP	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 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