


P2SC-ROB-WR-764 - 20241111	P2SC Weekly report	
Period covered: Date:	Mon Nov 11 to Sun Nov 17, 2024 26 Nov 2024	Royal Observatory of Belgium -
Written by: Approved by:	Dana Talpeanu Marie Dominique	PROBA2 Science Center
To:	LYRA PI, marie.dominique@sidc.be SWAP PI, elke.dhuys@sidc.be	https://proba2.sidc.be ++ 32 (0) 2 3730559
cc:	ROB DIR, ronald@oma.be ESA Redu, Rene.Wittmann@esa.int and Marcus.De.Deus.Silva@esa.int ESA D/SRE, Joe.Zender@esa.int ESA D/TEC, Juha-Pekka.Luntama@esa.int and Melanie.Heil@esa.int	

1. Science

Solar & Space weather events

The level of solar activity¹ fluctuated between **low and moderate** this week.

Only M- and X-flares are mentioned, the most energetic one(s) per day are presented in **bold**:

	Monday 11 Nov	Tuesday 12 Nov	Wednesday 13 Nov	Thursday 14 Nov	Friday 15 Nov	Saturday 16 Nov	Sunday 17 Nov
Activity	moderate	low	moderate	low	moderate	low	low
Flares	M1.4 M1.1	-	M1.7 M1.0	-	M1.0 M1.1	-	-

¹ See appendix. All timings are given in UT.

Solar Activity

Solar flare activity fluctuated from low to moderate during the week.

In order to view the activity of this week in more detail, we suggest going to the following website:

<https://proba2.oma.be/ssa> (GOES data available).

This page also lists the recorded flaring events.

2. PROBA2 status

During the week November 11-17, PROBA2 was still in safe mode since November 5 due to a combination of GPS issues and too high temperature for the star tracker to be able to locate suitable stars for orientation. SWAP and LYRA were in OFF mode, therefore no data was acquired throughout the week.

PROBA2 went back to nominal mode on 2024-11-18 at 23:43:30 UT (the next reporting period). SWAP started taking observations on 2024-11-19 at 09:51 UT, commanded with IOS01237. LYRA started acquiring data on 2024-11-19 at 09:49 UT, commanded with LYIOS01132. Both IOSs were uploaded during pass 48841.

3. APPENDIX: Frequently used acronyms

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
DAC	Data Acquisition Controller
DBR	Deployment, backup & recovery
DDA	Decommutated data archive
ESP	Experimental Solar Panel
FITS	Flexible Image Transport System
FOV	Field Of View FPA Focal Plane Assembly
FPGA	Field Programmable Gate Arrays
GPS	Global Positioning System
HK	Housekeeping
IOS	Instrument Operations Sheet
LED	Light Emitting Diode
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
OBSW	On board Software
PI	Principal Investigator
P2SC	PROBA2 Science Center
ROB	Royal Observatory of Belgium
SAA	South Atlantic Anomaly
SEU	Single Event Upset
SoFAST	Solar Feature Automated Search Tool
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
TC	Telecommand
UTC	Coordinated Universal Time
UV	Ultraviolet
VFC	Voltage to Frequency Converter

4. APPENDIX Solar Activity Definitions

In the science section we use the following solar activity standards.

The standard scale for solar activity is:

- very low (almost no flares, only B)
- low (a few C flares)
- moderate (many C flares and at least an M flare)
- high (several M flares and an X flare)
- very high (continuous background of C flares, numerous M flares, more than one X flare)