


P2SC-ROB-WR-763 - 20241104	<b>P2SC Weekly report</b>	
Period covered: Date:	Mon Nov 04 to Sun Nov 10, 2024 27 Nov 2024	Royal Observatory of Belgium -
Written by: Approved by:	Laurence Wauters Marie Dominique	PROBA2 Science Center
To:	LYRA PI, marie.dominique@sidc.be SWAP PI, elke.dhuys@sidc.be	<a href="https://proba2.sidc.be">https://proba2.sidc.be</a> ++ 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 activity<sup>1</sup> was moderate this week.

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

	Monday 04 Nov	Tuesday 05 Nov	Wednesday 06 Nov	Thursday 07 Nov	Friday 08 Nov	Saturday 09 Nov	Sunday 10 Nov
Activity	moderate	very low	very low	very low	very low	very low	very low
Flares	<b>M1.5, M3.8,</b> <b>2*M1.1, M1.0,</b> <b>M1.4, M1.3,</b> <b>M1.2, M1.6,</b> <b>M5.6</b>	<b>M2.6, M1.1,</b> <b>M1.2, M2.9,</b> <b>M4.1</b>	<b>3*M1.1,</b> <b>2*M1.2, M2.9,</b> <b>M5.8, M1.5,</b> <b>M1.2, X2.3,</b> <b>M5.3, M1.3,</b> <b>M1.6</b>	<b>2*M2.5,</b> <b>M1.3, M1.6,</b> <b>M2.7, M1.4,</b> <b>M2.3</b>	<b>M1.5</b>	<b>M1.2</b>	<b>M4.2, M9.4,</b> <b>M4.9</b>

<sup>1</sup> See appendix. All timings are given in UT.

## **Solar Activity**

Solar flare activity was 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**

**From November 5 13:22 UT, PROBA2 was in safe mode 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 was in IDLE mode and LYRA in OFF mode until the end of the week. Therefore, no data was acquired during the period.**

**PROBA2 went back to nominal mode on 2024-11-18 at 23:43:30 UT (see reporting period #765). SWAP started taking observations on 2024-11-19 at 09:51 UT and LYRA started acquiring data on 2024-11-19 at 09:49 UT.**

## 6. 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 VFC	Ultraviolet Voltage to Frequency Converter
-----------	---

## **7. 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)