

STCE Newsletter

10 Aug 2026 - 16 Aug 2026



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The Solar-Terrestrial Centre of Excellence (STCE) is a collaborative network of the Belgian Institute for Space Aeronomy, the Royal Observatory of Belgium and the Royal Meteorological Institute of Belgium.

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1. Double eclipse for Proba-3

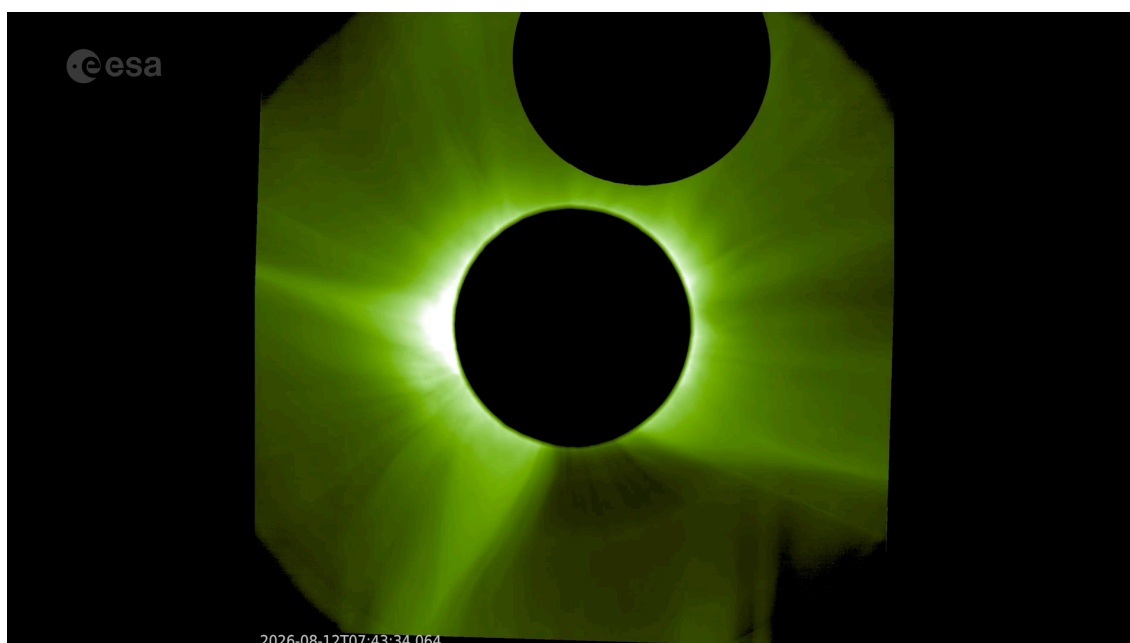
By now, you must have seen the amazing images of the total eclipse that occurred last week. However, did you know this total eclipse was also seen from space?

When a total eclipse occurs on Earth, solar imagers in space usually only observe a partial eclipse, due to a different alignment between the Sun, the Moon and the spacecraft. However, on August 12, the ASPIICS coronagraph onboard Proba-3 was in just the right place at the right time!

ASPIICS is used to seeing eclipses, as that is the exact purpose of the Proba-3 mission: use a second spacecraft to occult the solar disk and create an artificial eclipse on demand. However, on August 12, the Moon joined the fun: as the two Proba-3 spacecraft were already aligned for eclipse observations, the Moon slid in between the spacecraft and the Sun, creating double eclipse and an even larger shadow in the ASPIICS observations.

Because the Proba-3 spacecraft take their eclipse observations at a height of 60,000 km, they were closer to the Moon than Earth at the time of observation. And so this unique double eclipse took much longer than totality on ground: 8 min and 40 sec to be exact.

Enjoy the movie here: https://www.esa.int/ESA_Multimedia/Videos/2026/08/A_double_eclipse_for_Proba-3



2. Review of Solar and Geomagnetic Activity

WEEK 1337 from 2026 Aug 10

Solar Active Regions (ARs) and flares

The solar flaring activity of the past week was at low levels. In total 26 C-class flares were detected from five Active Regions.

The brightest flare was SIDC flare 8380, a C8 flare that peaked on Aug 16 at 19:28 UTC. It was originated from SIDC Sunspot Group 939 (NOAA Active Region 4506, magnetic configuration beta).

Coronal mass ejections

The SIDC Coronal Mass Ejection (CME) 707 can be seen in LASCO-C2 images as launched on Aug 14 at 07:12 UTC. It is associated the large filament eruption of Aug 14 at 04:00 UTC.

The SIDC CME 710 was observed by LASCO/C2 from around 19:48 UTC onwards. It is linked to SIDC flare 8380, a C8 that peaked on Aug 16 at 19:28 UTC.

Coronal Holes

SIDC Coronal Hole (CH) 174 is a northern, middle-latitude, elongated, irregular, positive polarity structure. It crossed the solar central meridian from 10 to 12 Aug.

SIDC CH 149 is a southern, mid-latitude, negative polarity CH that started crossing the central meridian on Aug 16.

Proton flux levels

The greater than 10 MeV proton flux, as measured by the GOES-19 satellite, was at nominal levels over the past week.

Electron fluxes at GEO

The greater than 2 MeV electron flux, as measured by GOES 19, was below the 1000 pfu alert threshold for the past week.

The electron fluence was at normal levels during the same period.

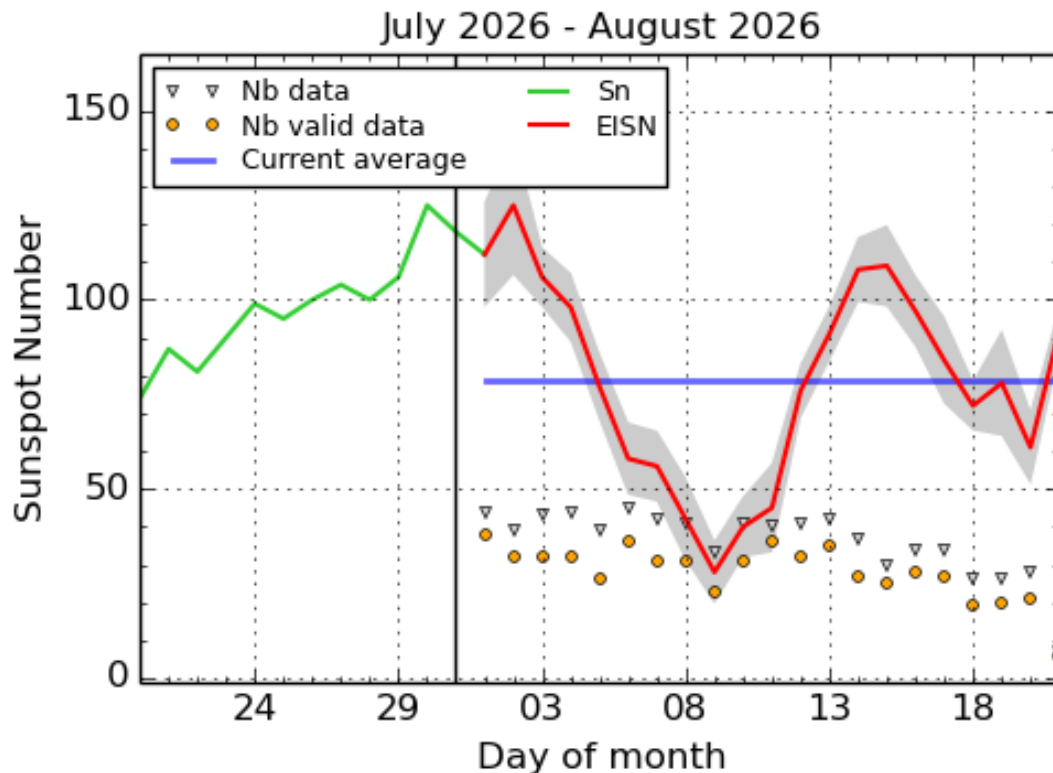
Solar wind

The Solar Wind (SW) conditions of the past week featured a slow SW regime, with the exception of short periods of enhanced SW speed. Throughout the week, the SW speed ranged from 290 to 460 km/s, the interplanetary magnetic field (B) varied between 1 and 10 nT, and its North-South component (Bz) registered values from -8 to 7 nT.

Geomagnetism

The geomagnetic conditions of the week were at quiet to unsettled levels globally (NOAA Kp 0+ to 3+) and up to active level locally (K BEL 1 to 4).

3. International Sunspot Number by SILSO



SILSO graphics (<http://sidc.be/silso>) Royal Observatory of Belgium, 2026 August 21

The daily Estimated International Sunspot Number (EISN, red curve with shaded error) derived by a simplified method from real-time data from the worldwide SILSO network. It extends the official Sunspot Number from the full processing of the preceding month (green line), a few days more than one solar rotation. The horizontal blue line shows the current monthly average. The yellow dots give the number of stations that provided valid data. Valid data are used to calculate the EISN. The triangle gives the number of stations providing data. When a triangle and a yellow dot coincide, it means that all the data is used to calculate the EISN of that day.

4. PROBA2 Observations (3 Aug 2026 - 9 Aug 2026)

Solar Activity

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

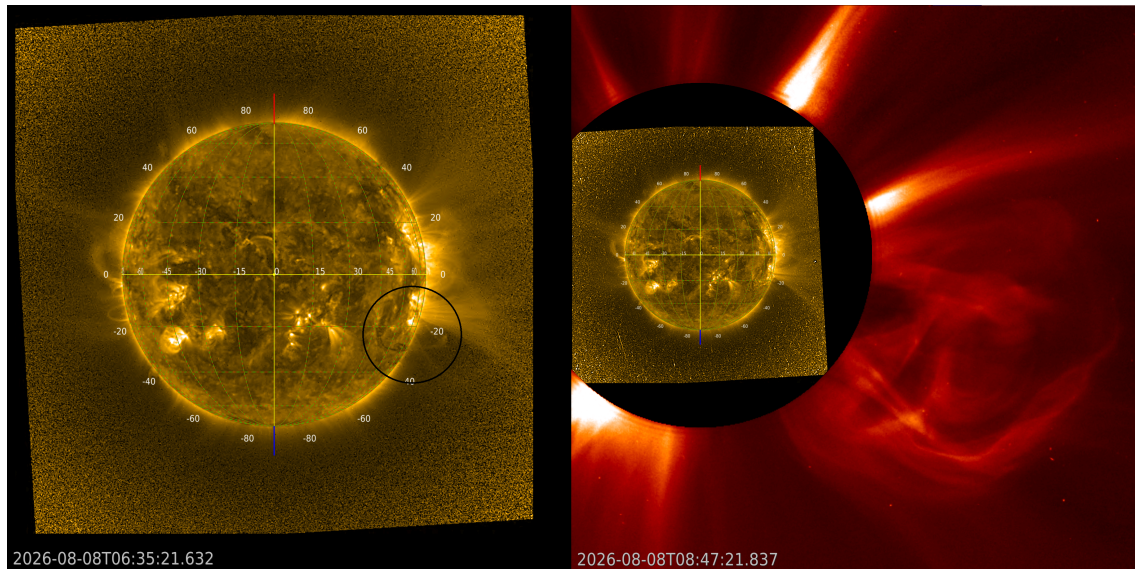
In order to view the activity of this week in more detail, we suggest to go to the following website from which all the daily (normal and difference) movies can be accessed: <https://proba2.oma.be/ssa>
This page also lists the recorded flaring events.

A weekly overview movie (SWAP week 854) can be found here: https://proba2.sidc.be/swap/data/mpg/movies/weekly_movies/weekly_movie_2026_08_03.mp4.

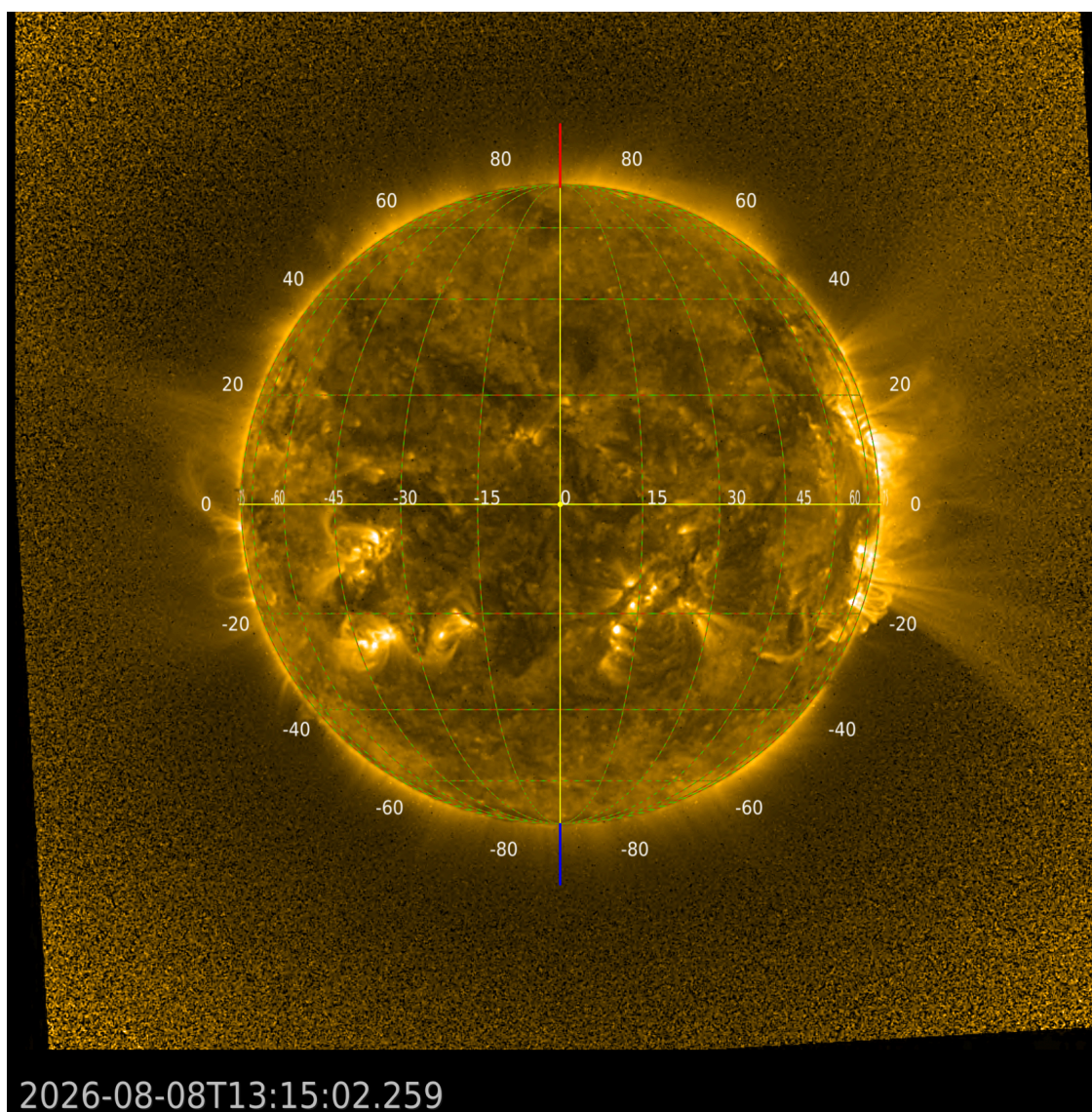
Details about some of this week's events can be found further below.

If any of the linked movies are unavailable they can be found in the P2SC movie repository here: <https://proba2.oma.be/swap/data/mpg/movies/>.

Saturday August 08



In the absence of large flares during this week, the most interesting event was a filament eruption that occurred on 2026-Aug-08 and originated from the encircled area, seen in the left panel in an observation taken by SWAP at 06:35 UT. The eruption resulted in a coronal mass ejection directed south-west (right panel), as seen by the LASCO-C2 coronagraph (in red) onboard SOHO spacecraft. Below you can also nicely see the post-eruptive arcades close to the limb area that followed the eruption.



Find a SWAP movie of the event here: https://proba2.sidc.be/swap/movies/20260808_swap_movie.mp4.

5. PROBA2 Observations (10 Aug 2026 - 16 Aug 2026)

Solar Activity

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

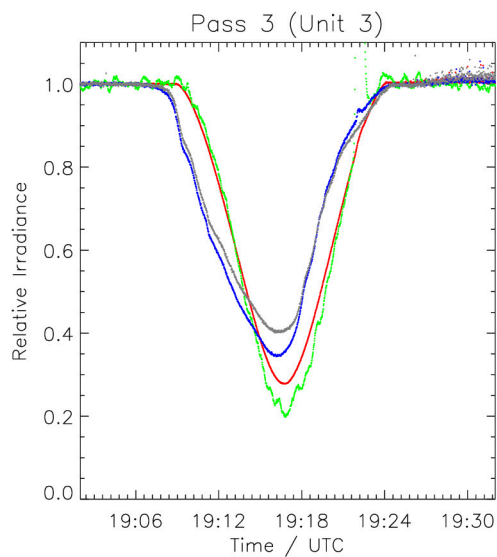
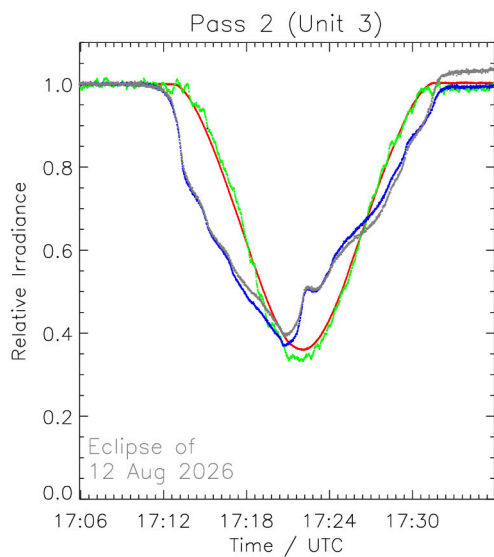
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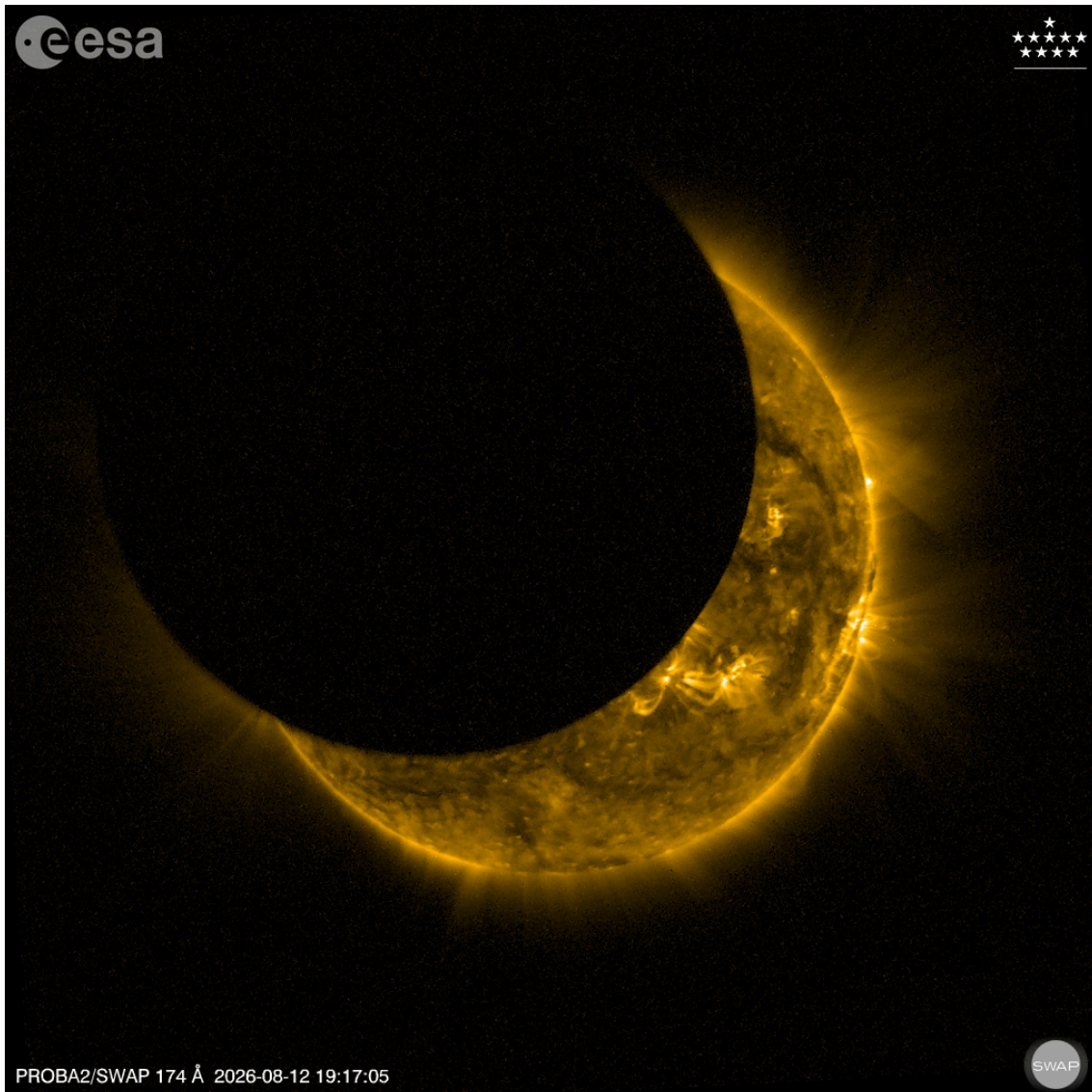
A weekly overview movie (SWAP week 855) can be found here: https://proba2.sidc.be/swap/data/mpg/movies/weekly_movies/weekly_movie_2026_08_10.mp4.

Details about some of this week's events can be found further below.

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Wednesday August 12

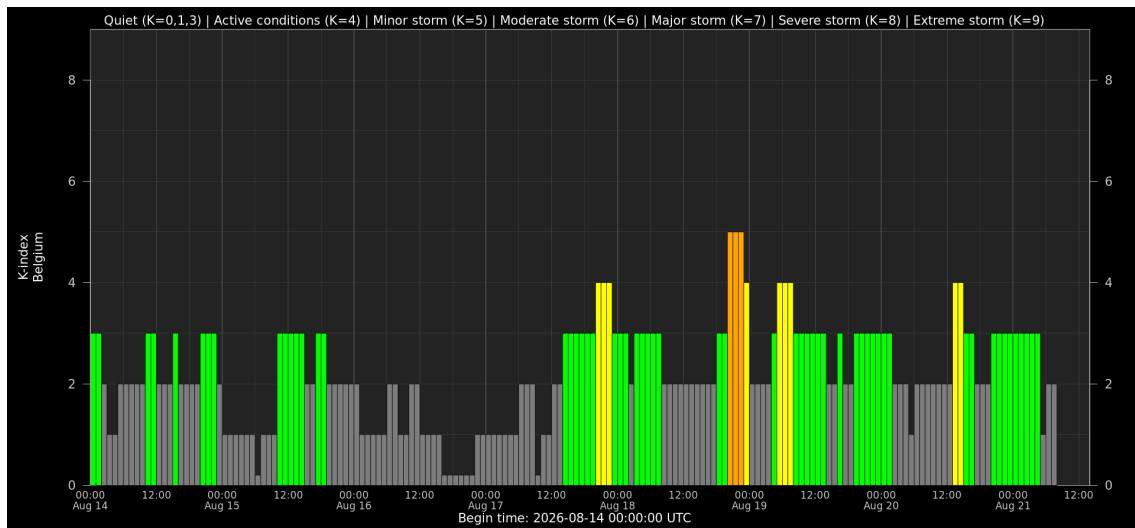




The solar eclipse of August 12 was observed and recorded by LYRA (top) and SWAP (bottom). The irradiance plots above, corresponding to the two primary transits (out of a total of 3 passes) of PROBA2 through the occultation zone, illustrate the gradual reduction in irradiance across the four channels of LYRA's backup unit as the Moon passed in front of the Sun. The SWAP image captures the moment when the eclipse reached its maximum phase as seen from PROBA2, during the 3rd pass, with a coverage of 68%. More detailed explanations can be found on the PROBA2 website: <https://proba2.sidc.be/node/396>.

Find a SWAP movie of the event here: https://proba2.sidc.be/Events/2026-Aug-12-SolarEclipse/movies/swap_eclipse_2026_08_12_logos_lossless.mp4.

6. Geomagnetic Observations in Belgium



Local K-type magnetic activity index for Belgium based on data from Dourbes (DOU) and Manhay (MAB). Comparing the data from both measurement stations allows to reliably remove outliers from the magnetic data. At the same time the operational service availability is improved: whenever data from one observatory is not available, the single-station index obtained from the other can be used as a fallback system.

Both the two-station index and the single station indices are available here: http://ionosphere.meteo.be/geomagnetism/K_BEL/

7. The SIDC Space Weather Briefing

The forecaster on duty presented the SIDC briefing that gives an overview of space weather from August 10 to 16.

The pdf of the presentation: https://www.stce.be/briefings/20260817_SWbriefing.pdf

SIDC Space Weather Briefing

10 August 2026-16 August 2026

Katsiyannis Thanassis

& the SIDC forecaster team



Solar Influences
Data analysis Centre
www.sidc.be

8. Upcoming Activities

Courses, seminars and events with the Sun-Space-Earth system and Space Weather as the main theme. We provide occasions to get submerged in our world through educational, informative and instructive activities.

- * Sep 3, 2026, Watching the Sun: a 200-year journey, guided tour Solar Physics, Ukkel, Belgium - register <https://events.spacepole.be/category/2/>
- * Sep 10, 2026, STCE Seminar: The near and mid UV Sun from the Solar Ultraviolet Imaging Telescope on board Aditya-L1 - See <https://stce.be/calendar>
- * Sep 26-27, 2026, Opendoors Space Pole, Ukkel, Belgium
- * Oct 12-14, 2026, STCE Space Weather Introductory Course, Brussels, Belgium - register: <https://events.spacepole.be/event/257/> - Fully booked
- * Oct 15, 2026, Post Space Weather Introductory Course, Brussels, Belgium - register: <https://events.spacepole.be/event/286/>
- * Oct 16, 2026, Watching the Sun: a 200-year journey, guided tour Solar Physics, Ukkel, Belgium - register <https://events.spacepole.be/category/2/>
- * Oct 29 - Nov 1, 2026, Prior to ESWW2026 - Space Weather Training Course in Firenze, Italy - Applications closed
- * Nov 2-6, 2026, European Space Weather Week, Florence, Italy, <https://esww2026.eswan.eu/>
- * Nov 13, 2026, Watching the Sun: a 200-year journey, guided tour Solar Physics, Ukkel, Belgium - register <https://events.spacepole.be/category/2/>
- * Nov 23-25, 2026, STCE course: Role of the ionosphere and space weather in military communications, Brussels, Belgium - register: <https://events.spacepole.be/event/259/>
- * Nov 30, 2026, Watching the Sun: a 200-year journey, guided tour Solar Physics, Ukkel, Belgium - register <https://events.spacepole.be/category/2/>
- * Dec 7-9, 2026, STCE Space Weather Introductory Course for Aviation, Brussels, Belgium - register: <https://events.spacepole.be/event/262/> - Fully booked

To register for a course and check the seminar details, navigate to the STCE Space Weather Education Center: <https://www.stce.be/SWEC>

If you want your event in the STCE newsletter, contact us: [stce_coordination at stce.be](mailto:stce_coordination@stce.be)



Space Weather Education Centre

Website: <https://www.stce.be/SWEC>