Solar Activity and Geomagnetic Report

Reporting Period: 16–17 February 2026

1. Solar Flare Activity

Solar flaring activity was moderate over the past 24 hours with one C-class flare and one M-class flare detected. The largest event was an M2.4 flare (SIDC Flare 7037, S09E89) peaking at 04:35 UTC on 16 February 2026. The flare originated from an unnumbered active region on the eastern limb of the Sun. Six numbered sunspot groups were observed on the solar disk. The most complex region was SIDC Sunspot Group 795 (NOAA Active Region 4377) with a Beta-Delta magnetic configuration and signs of growth.

2. Coronal Mass Ejection (CME)

A partial halo coronal mass ejection (CME) was first observed in SOHO/LASCO-C2 imagery at 04:24 UTC on 16 February 2026. The CME was associated with the M2.4 flare described above. Projected speed was approximately 1600 km/s with an angular width near 180 degrees. Initial analysis indicates a possible glancing blow at Earth on 17 February 2026.

Parameter	Value
Onset Time (t0)	2026-02-16T04:12:24 UTC
Liftoff Duration (dt0)	4 hours
Principal Angle (pa)	124 degrees
Angular Width (da)	190 degrees
Median Velocity (v)	635 km/s
Velocity Variation (dv)	512 km/s
Minimum Velocity	150 km/s
Maximum Velocity	2013 km/s

3. Particle Flux

The greater than 10 MeV GOES proton flux remained below threshold levels. The 2 MeV electron flux measured by GOES-18 and GOES-19 was also below threshold but may increase within the next 24 hours. The 24-hour electron fluence remained at nominal levels.

4. Geomagnetic Conditions

Global geomagnetic conditions ranged from unsettled to active (Kp 3–4). Locally over Belgium conditions ranged from quiet to active (K BEL 2–4). Solar wind speed ranged between 480 and 722

km/s. The interplanetary magnetic field ranged from 2 to 9 nT, with Bz reaching -7 nT. Unsettled to minor storm conditions (K 3–5) are expected in the next 24 hours due to continued high-speed streams and a possible glancing CME impact.