\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
Product: Daily Forecast of Geomagnetic Activity
Issued: 2024 August 11 07:58UTC
Prepared by the Athens Space Weather Forecasting Center
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

**I. Solar activity**
*--Current Status*
Solar Flux (10.7cm) measured on 10.08.2024 at 23:00 UTC was 291 sfu.
The background X-Ray flux is at the class C3.1 level.
Four M-class were produced on August 09 and the largest event was M5.3 flare.
No obviously Earth directed CMEs were observed in available LASCO imagery on August 05-06.
A small coronal hole (CH1234) at northern hemisphere rotated across the central meridian on August 07.
---CME arrival forecast
A CME was observed on August 07 at 14:24 UT after an M4.5 flare. This CME was expected to reach on Earth between on August 09 at 21:03 UT and on August 10 at 07:55 UT according to EAM predictions.
A halo CME was observed on August 08 at 20:00 UT. The source of this CME is an X1.3 class flare from AR 3777 (S05W25) that peaked on August 08 at 19:36 UT. This CME is expected to reach on Earth between on August 11 at 22:18 UT and on August 12 at 08:34 UT according to EAM predictions.
A partial halo CME was observed on August 09 at 21:48 UT. The source is an M4.5 flare peaking on August 09 at 21:23 UT from AR 3774. This CME is expected to reach on Earth on August 12 between 20:09 UT and 20:18 UT.

**II. Solar Energetic Particle Events**
Protons and electrons fluxes are quiet.

**III. Interplanetary and Geomagnetic conditions**
The solar wind speed measured by ACE satellite reached the max value 489 Km/s on August 11 at 02:05 UT during the last 24 hours.
The solar wind speed from STEREO A was detected 400 Km/s during the last 24 hours.
The vertical component of IMF Bz reached the max value -14 nT on August 11 at 05:15 UT during the last 24 hours.
The geomagnetic field was at quiet levels during the last 24 hours.
The Kp index now is at quiet levels with Kp=2.

**IV. 3-day Geomagnetic Activity Forecast**
The geomagnetic field is expected to be at quiet to moderate storm (G2) levels on August 11-12 due to CMEs observed on August 07-09 and at quiet to unsettled levels on August 13.

|  |  |  |
| --- | --- | --- |
| **Date** | **Ap index forecast** | **Geomagnetic Activity level** |
| 11.08.2024 | 25 | Quiet to Moderate Storm (G2) |
| 12.08.2024 | 35 | Quiet to Moderate Storm (G2) |
| 13.08.2024 | 10 | Quiet to Unsettled |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
Athens Space Weather Forecasting Center
Physics Department, National & Kapodistrian University of Athens
Athens Neutron Monitor Station A.NE.MO.S
Tel.: +30 210 727 6901
email: spaceweather@phys.uoa.gr
URL: http://spaceweather.phys.uoa.gr
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*