\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
Product: Daily Forecast of Geomagnetic Activity
Issued: 2024 August 02 08:04UTC
Prepared by the Athens Space Weather Forecasting Center
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

**I. Solar activity**
*--Current Status*
Solar Flux (10.7cm) measured on 01.08.2024 at 23:00 UTC was 234 sfu.
The background X-Ray flux is at the class M1.4 level.
Thirteen M-class solar flares were produced on August 01 and the largest was the Μ8.2 flare.
AR3768 erupted on August 01 at 07:09 UT peak time producing a M8.2 class solar flare and a radio blackout of category R2.
No obviously Earth directed CMEs were observed in available LASCO imagery on July 30-31.
An equatorial coronal hole (CH1233) rotated across the central meridian on July 30-31.
---CME arrival forecast
A CME was observed on July 29 at 13:25 UT. The source is the M8.7 flare peaking on July 29 at 12:55 UT from AR3762. This CME was expected to reach Earth between on July 31 at 23:13 UT and on August 01 at 08:00 UT according to EAM predictions.
A partial halo CME was observed on August 01 at 07:24 UT. This CME is expected to reach on Earth on August 03 between at 05:21 UT and at 21:41 UT according to EAM predictions.

**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 442 Km/s on August 01 at 23:55 UT during the last 24 hours.
The solar wind speed from STEREO A was detected 600 Km/s during the last 24 hours.
The vertical component of IMF Bz reached the max value -4 nT on August 02 at 01:45 UT during the last 24 hours.
The geomagnetic field was at quiet tο minor storm (G1) levels during the last 24 hours.
The Kp index now is at unsettled levels with Kp=3.

**IV. 3-day Geomagnetic Activity Forecast**
The geomagnetic field is expected to be at quiet to unsettled levels on August 02 and at quiet to minor storm (G1) levels on August 03-04 due to the effect of CMEs,

|  |  |  |
| --- | --- | --- |
| **Date** | **Ap index forecast** | **Geomagnetic Activity level** |
| 02.08.2024 | 10 | Quiet to Unsettled |
| 03.08.2024 | 20 | Quiet to Minor Storm (G1) |
| 04.08.2024 | 15 | Quiet to Minor Storm (G1) |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
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
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*