\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
Product: Daily Forecast of Geomagnetic Activity
Issued: 2024 August 15 06:56UTC
Prepared by the Athens Space Weather Forecasting Center
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

**I. Solar activity**
*--Current Status*
Solar Flux (10.7cm) measured on 14.08.2024 at 23:00 UTC was 248 sfu.
The background X-Ray flux is at the class C4.8 level.
One X1.1-class flare and three M-class flares were produced on August 14.
AR3784 erupted on August 14 at 06:40 UT peak time producing a X1.1 class solar flare and a radio blackout of category R3.
No obviously Earth directed CMEs were observed in available LASCO imagery on August 12-13.
A coronal hole at northern hemipshere will be rotating across the central meridian on August 13-15.
A CME was observed on August 14 at 08:23 UT after the X1.1 flare from AR3784. This CME is expected to reach Earth on August 17 between at 08:07 UT and at 11:52 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 411 Km/s on August 14 at 16:10 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 -3 nT on August 14 at 20:05 UT during the last 24 hours.
The geomagnetic field was at quiet to active levels during the last 24 hours.
The Kp index now is at quiet levels with Kp=1.

**IV. 3-day Geomagnetic Activity Forecast**
The geomagnetic field is expected to be at quiet to unsettled levels on August 15-16 and at quiet to active levels on August 17 due to CME observed on August 14.

|  |  |  |
| --- | --- | --- |
| **Date** | **Ap index forecast** | **Geomagnetic Activity level** |
| 15.08.2024 | 06 | Quiet to Unsettled |
| 16.08.2024 | 08 | Quiet to Unsettled |
| 17.08.2024 | 15 | Quiet to Active |

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