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Product: Daily Forecast of Geomagnetic Activity
Issued: 2024 August 10 08:00UTC
Prepared by the Athens Space Weather Forecasting Center
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**I. Solar activity**
*--Current Status*
Solar Flux (10.7cm) measured on 09.08.2024 at 23:00 UTC was 306 sfu.
The background X-Ray flux is at the class C8.9 level.
Seven M-class were produced on August 08 and the largest event was M4.6 flare.
AR3774 erupted on August 09 at 21:23 UT peak time producing a M4.6 class solar flare and a radio blackout of category R1.
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 is 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.

**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 421 Km/s on August 09 at 20:25 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 -4 nT on August 10 at 03:40 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 10-12 due to CMEs observed on August 07-08.

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| **Date** | **Ap index forecast** | **Geomagnetic Activity level** |
| 10.08.2024 | 40 | Quiet to Moderate Storm (G2) |
| 11.08.2024 | 40 | Quiet to Moderate Storm (G2) |
| 12.08.2024 | 30 | Quiet to Moderate Storm (G2) |

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