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Product: Daily Forecast of Geomagnetic Activity
Issued: 2024 October 06 07:36UTC
Prepared by the Athens Space Weather Forecasting Center
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**I. Solar activity**
*--Current Status*
Solar Flux (10.7cm) measured on 05.10.2024 at 23:00 UTC was 277 sfu.
The background X-Ray flux is at the class C4.8 level.
Five M-class solar flares were produced on October 05 and the largest was the M2.4.
AR3842 erupted on October 05 at 04:55 UT peak time producing a M2.4 class solar flare and a radio blackout of category R1.
No obviously Earth directed CMEs were observed in available LASCO imagery on October 02.
A small equatorial coronal hole (CH1245) will rotate into an Earth facing position on October 04-05.
---CME arrival forecast
A CME was observed on October 01 at 23:09 UT, associated with an X7.1-class flare from AR3842. This CME was expected to reach Earth between on October 04 at 22:35 UT and on October 05 at 02:41 UT according to EAM predictions.
Another CME was observed on October 03 at 12:48 UT. The source was the X9.0 flare. This CME is expected to reach Earth between on October 05 at 21:50 UT and on October 06 at 06:40 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 426 Km/s on October 05 at 21:30 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 -6 nT on October 05 at 18:25 UT during the last 24 hours.
The geomagnetic field was at quiet to unsettled 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 strong storm (G3) levels on October 06 due to the effects of CMEs on October 01 and 03 and at quiet to active levels on October 07 and at quiet to unsettled levels on October 08.

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| **Date** | **Ap index forecast** | **Geomagnetic Activity level** |
| 06.10.2024 | 55 | Quiet to Strong storm (G3) |
| 07.10.2024 | 20 | Quiet to Active |
| 08.10.2024 | 12 | Quiet to Unsettled |

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