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Product: Daily Forecast of Geomagnetic Activity
Issued: 2024 October 07 07:55UTC
Prepared by the Athens Space Weather Forecasting Center
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**I. Solar activity**
*--Current Status*
Solar Flux (10.7cm) measured on 06.10.2024 at 23:00 UTC was 265 sfu.
The background X-Ray flux is at the class C3.3 level.
Five M-class flares were produced on October 06.
No obviously Earth directed CMEs were observed in available LASCO imagery on October 05-06.
A small equatorial coronal hole (CH1245) was in an Earth facing position on October 04.
---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 was 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 531 Km/s on October 06 at 10:25 UT during the last 24 hours.
The solar wind speed from STEREO A was detected 450 Km/s during the last 24 hours.
The vertical component of IMF Bz reached the max value -11 nT on October 06 at 11:55 UT during the last 24 hours.
The geomagnetic field was at quiet to moderate storm (G2) levels during the last 24 hours.
The Kp index now is at minor storm (G1) levels with Kp=5.

**IV. 3-day Geomagnetic Activity Forecast**
The geomagnetic field is expected to be at quiet to minor storm (G1) levels on October 07 due to the continuous effects of CMEs, at quiet to active levels on October 08 and at quiet to unsettled levels on October 09.

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| **Date** | **Ap index forecast** | **Geomagnetic Activity level** |
| 07.10.2024 | 28 | Quiet to Minor storm (G1) |
| 08.10.2024 | 12 | Quiet to Active |
| 09.10.2024 | 06 | Quiet to Unsettled |

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