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Product: Daily Forecast of Geomagnetic Activity
Issued: 2024 October 03 09:06UTC
Prepared by the Athens Space Weather Forecasting Center
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**I. Solar activity**
*--Current Status*
Solar Flux (10.7cm) measured on 02.10.2024 at 23:00 UTC was 275 sfu.
The background X-Ray flux is at the class M1.4 level.
Nine M1-class solar flares were produced on October 02 and the largest was the M3.3.
AR3842 erupted on October 02 at 20:51 UT peak time producing a M3.3 class solar flare and a radio blackout of category R1.
No obviously Earth directed CMEs were observed in available LASCO imagery on September 29-30.
---CME arrival forecast
A CME was observed on October 01 at 23:09, associated with an X7.1-class flare from AR3842. This CME is expected to reach Eaeth between on October 04 at 22:35 UT and on October 05 at 02:41 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 376 Km/s on October 02 at 10:15 UT during the last 24 hours.

The solar wind speed from STEREO A was detected 500 Km/s during the last 24 hours.

The vertical component of IMF Bz reached the max value -5 nT on October 03 at 05:15 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 unsettled levels on October 03, at quiet to strong (G3) levels on October 04 and at unsettled to moderate Storm (G2) levels on October 05.

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| **Date** | **Ap index forecast** | **Geomagnetic Activity level** |
| 03.10.2024 | 12 | Quiet to Unsettled |
| 04.10.2024 | 60 | Quiet to Strong (G3) |
| 05.10.2024 | 35 | Unsettled to Moderate Storm (G2) |

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