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Product: Daily Forecast of Geomagnetic Activity
Issued: 2025 May 31 07:04UTC
Prepared by the Athens Space Weather Forecasting Center
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**I. Solar activity**
*--Current Status*
Solar Flux (10.7cm) measured on 30.05.2025 at 23:00 UTC was 157 sfu.
The background X-Ray flux is at the class C3.8 level.
Three M-class solar flares were produced on May 30 and the biggest was the M8.2.
AR4100 erupted on May 30 at 00:05 UT peak time producing a M8.2-class solar flare and a radio blackout of category R2.
No obviously Earth directed CMEs were observed in available LASCO imagery on May 28-29.
A coronal hole (CH1297) at southern hemisphere rotated across the central meridian on May 26-27.
A recurrent negative polarity trans equatorial coronal hole (CH1298) will be Earth facing on May 27-31.
---CME arrival forecast
A CME was observed on May 30 at 06:38 UT. This CME is expected to reach Earth on June 02 between at 05:33 UT and 07:08 UT according to EAM predictions.

**II. Solar Energetic Particle Events**
Protons fluxes are quiet.
The greater than 2 MeV electron flux at geosynchronous orbit was at minor storm levels.

**III. Interplanetary and Geomagnetic conditions**
The solar wind speed measured by ACE satellite reached the max value 788 Km/s on May 30 at 09:00 UT during the last 24 hours.
The solar wind speed from STEREO A was detected 600 Km/s during the last 24 hours.
The vertical component of IMF Bz reached the max value -6 nT on May 30 at 22:45 UT during the last 24 hours.
The geomagnetic field was at unsettled to active levels during the last 24 hours.
The Kp index now is at unsettled levels with Kp=3.

**IV. 3-day Geomagnetic Activity Forecast**
The geomagnetic field is expected to be at quiet to active levels on May 31-June 01due to effects from CH1298 and at quiet to moderate storm (G2) levels on May 02 due to the CME effects.

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| **Date** | **Ap index forecast** | **Geomagnetic Activity level** |
| 31.05.2025 | 20 | Quiet to Active |
| 01.06.2025 | 15 | Quiet to Active |
| 02.06.2025 | 25 | Quiet to Moderate storm (G2) |

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