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Product: Daily Forecast of Geomagnetic Activity
Issued: 2024 September 16 07:11UTC
Prepared by the Athens Space Weather Forecasting Center
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**I. Solar activity**
*--Current Status*
Solar Flux (10.7cm) measured on 15.09.2024 at 23:00 UTC was 173 sfu.
The background X-Ray flux is at the class C1.5 level.
No obviously Earth directed CMEs were observed in available LASCO imagery on September 11-12.
A coronal hole (CH1241) at southern hemisphere rotated into an Earth facing position on September 12-13.
---CME arrival forecast
A CME was observed on September 13 at 10:12 UT. This CME could reach Earth on September 16 between at 01:37 UT and 06:15 UT according to EAM predictions.
Another CME was observed on September 14 at 15:36 UT, associated with the powerful X4.5-class solar flare. This CME is expected to reach Earth on September 16 at 15:50 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 530 Km/s on September 16 at 06:00 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 -9 nT on September 16 at 05:15 UT during the last 24 hours.
The geomagnetic field was at quiet to active levels during the last 24 hours.
The Kp index now is at active levels with Kp=4.

**IV. 3-day Geomagnetic Activity Forecast**
The geomagnetic field is expected to be at unsettled to strong storm (G3) with a chance of severe storm (G4) levels on September 16 due to the effects of CMEs from September 13 and 14 and the recurrent coronal hole high speed stream and at quiet to moderate storm (G2) levels on September 17 and at quiet to unsettled levels on September 18.

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| **Date** | **Ap index forecast** | **Geomagnetic Activity level** |
| 16.09.2024 | 65 | Unsettled to Strong storm (G3) |
| 17.09.2024 | 25 | Quiet to Moderate storm (G2) |
| 18.09.2024 | 10 | Quiet to Unsettled |

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