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Product: Daily Forecast of Geomagnetic Activity
Issued: 2024 September 10 06:57UTC
Prepared by the Athens Space Weather Forecasting Center
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**I. Solar activity**
*--Current Status*
Solar Flux (10.7cm) measured on 09.09.2024 at 23:00 UTC was 215 sfu.
The background X-Ray flux is at the class C3.0 level.
Seven M-class solar flares were produced on September 09 and the biggest was the M3.4 flare.
AR3814 erupted on September 09 at 17:08 UT peak time producing a M3.4 class solar flare and a radio blackout of category R1.
No obviously Earth directed CMEs were observed in available LASCO imagery on September 05-06.
---CME arrival forecast
A CME was observed on September 08 at 01:36 UT. This CME could reach Earth on September 11 between 00:41 UT and 03:19 UT according to EAM predictions.

**II. Solar Energetic Particle Events**
GOES Proton Flux for particles with energies above 10 MeV exceed the SWPC 10 MeV warning threshold on September 09 at 08:50 due to the effects of the CME. A solar radiation storm of level S1 was also observed.

**III. Interplanetary and Geomagnetic conditions**
The solar wind speed measured by ACE satellite reached the max value 474 Km/s on September 09 at 15:55 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 September 09 at 15:55 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=2.

**IV. 3-day Geomagnetic Activity Forecast**
The geomagnetic field is expected to be at quiet to minor storm (G1) levels on September 10-11 due to the CME observed on September 08 and at quiet to unsettled levels on September 12.

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| **Date** | **Ap index forecast** | **Geomagnetic Activity level** |
| 10.09.2024 | 20 | Quiet to Minor storm (G1) |
| 11.09.2024 | 18 | Quiet to Minor storm (G1) |
| 12.09.2024 | 08 | Quiet to Unsettled |

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