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Product: Daily Forecast of Geomagnetic Activity
Issued: 2024 July 30 09:26UTC
Prepared by the Athens Space Weather Forecasting Center
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**I. Solar activity**
*--Current Status*
Solar Flux (10.7cm) measured on 29.07.2024 at 23:00 UTC was 223 sfu.
The background X-Ray flux is at the class C3.8 level.
Six M-class and one X-class solar flares were produced on July 29.
AR3764 erupted on July 29 at 02:37 UT peak time producing a X1.5 class solar flare and a radio blackout of category R3.
No obviously Earth directed CMEs were observed in available LASCO imagery on July 26.
---CME arrival forecast
A CME was observed on July 27 at 06:36 UT. The source is an M3.1 flare from AR3762. This CME is expected to reach Earth between on July 29 at 20:36 UT and on July 30 at 02:31 UT according to EAM predictions.
A full halo CME was observed on July 28 at 02:24 after the M9.9 flare.This CME is expected to reach Earth on July 30 between at 09:26 UT and at 20:04 UT according to EAM predictions.
Another CME was observed on July 29 at 13:25 UT. The source is the M8.7 flare peaking on July 29 at 12:55 UT from AR3762. This CME is expected to reach Earth between on July 31 at 23:13 UT and on August 01 at 08:00 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 502 Km/s on July 30 at 03:40 UT during the last 24 hours.
The solar wind speed from STEREO A was detected 800 Km/s during the last 24 hours.
The vertical component of IMF Bz reached the max value -11 nT on July 30 at 02:25 UT during the last 24 hours.
The geomagnetic field was at quiet tο minor storm (G1) 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 minor storm (G1) to strong storm (G3) levels on July 30 due to the effect of CMEs from July 27-28, at unsettled to moderate storm (G2) level on July 31 and at unsettled to minor storm(G1) level on August 01.

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| **Date** | **Ap index forecast** | **Geomagnetic Activity level** |
| 30.07.2024 | 50 | Minor storm (G1) to Strong storm (G3) |
| 31.07.2024 | 25 | Unsettled to Moderate storm (G2) |
| 01.08.2024 | 15 | Unsettled to Minor storm (G1) |

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