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Product: Daily Forecast of Geomagnetic Activity
Issued: 2024 July 29 08:42UTC
Prepared by the Athens Space Weather Forecasting Center
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**I. Solar activity**
*--Current Status*
Solar Flux (10.7cm) measured on 28.07.2024 at 23:00 UTC was 214 sfu.
The background X-Ray flux is at the class C2.2 level.
Seven M-class solar flares were produced on July 28 and the biggest was the M9.9.
AR3766 erupted on July 28 at 01:50 UT peak time producing a M9.9 class solar flare and a radio blackout of category R2.
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.

**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 421 Km/s on July 28 at 05:30 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 -5 nT on July 28 at 23:35 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) level on July 29-31 and at minor storm (G1) to strong storm (G3) levels on July 30 due to the effect of CMEs from July 27-28.

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| **Date** | **Ap index forecast** | **Geomagnetic Activity level** |
| 29.07.2024 | 18 | Quiet to Minor storm (G1) |
| 30.07.2024 | 50 | Minor storm (G1) to Strong storm (G3) |
| 31.07.2024 | 20 | Quiet to Minor storm (G1) |

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