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Product: Daily Forecast of Geomagnetic Activity
Issued: 2024 July 19 08:33UTC
Prepared by the Athens Space Weather Forecasting Center
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**I. Solar activity**
*--Current Status*
Solar Flux (10.7cm) measured on 18.07.2024 at 23:00 UTC was 209 sfu.
The background X-Ray flux is at the class C3.4 level.
Two M-class solar flares were produced on July 18 and the biggest was the M2.2.
AR3751 erupted on July 18 at 10:14 UT peak time producing a M2.2 class solar flare and a radio blackout of category R1.
No obviously Earth directed CMEs were observed in available LASCO imagery on July 14-16.
A coronal hole (CH1232) at northern hemisphere rotated across the central meridian on July 14-16.
---CME arrival forecast
A CME was observed on July 16 at 23:12 UT. The source is an M1.9 flare from AR 3744. This CME could reach Earth on July 20 between 00:54 UT and 09:21 UT according to EAM predictions.
Another CME was observed on July 17 at 07:48 UT. This CME could reach Earth between on July 19 at 18: 46 UT and on July 20 at 02:47 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 356 Km/s on July 18 at 10:50 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 -3 nT on July 19 at 05:50 UT during the last 24 hours.
The geomagnetic field was at quiet levels during the last 24 hours.
The Kp index now is at quiet levels with Kp=1.

**IV. 3-day Geomagnetic Activity Forecast**
The geomagnetic field is expected to be at quiet to unsettled level on July 19 and 21 and at quiet to active or minor storm (G1) levels on July 20 due to the CMEs.

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| **Date** | **Ap index forecast** | **Geomagnetic Activity level** |
| 19.07.2024 | 08 | Quiet to Unsettled |
| 20.07.2024 | 15 | Quiet to Minor storm (G1) |
| 21.07.2024 | 10 | Quiet to Unsettled |

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