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Product: Daily Forecast of Geomagnetic Activity
Issued: 2024 October 29 09:24UTC
Prepared by the Athens Space Weather Forecasting Center
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**I. Solar activity**
*--Current Status*
Solar Flux (10.7cm) measured on 28.10.2024 at 23:00 UTC was 255 sfu.
The background X-Ray flux is at the class C4.2 level.
Three M-Class flares were produced on October 28 and the largest was the M4.2.
AR3878 erupted on October 28 at 16:28 UT peak time producing a M4.2 Class solar flare and a radio blackout of category R1.
No obviously Earth directed CMEs were observed in available LASCO imagery on October 27-28.
A coronal hole (CH1250) at southern hemisphere was Earth facing on October 24-25.
A CME was observed on October 26 at 06:48 UT, associated with a X1.9-Class solar flare from AR3873. This CME was expected reach Earth between on October 27 at 14:55 UT and on October 28 at 13:11 UT.

**II. Solar Energetic Particle Events**
GOES Proton Flux for particles with energies above 10 MeV exceed the SWPC 10 MeV warning threshold on October 26 at 19:10. A solar radiation storm of level S2 was also observed.

**III. Interplanetary and Geomagnetic conditions**
The solar wind speed measured by ACE satellite reached the max value 599 Km/s on October 28 at 04:35 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 -15 nT on October 28 at 04:35 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 quiet levels with Kp=2.

**IV. 3-day Geomagnetic Activity Forecast**
The geomagnetic field is expected to be at quiet to active levels on October 29 due to the effects of the CME, at quiet to unsettled levels on October 30 and at quiet levels on October 31.

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| **Date** | **Ap index forecast** | **Geomagnetic Activity level** |
| 29.10.2024 | 15 | Quiet to Active |
| 30.10.2024 | 08 | Quiet to Unsettled |
| 31.10.2024 | 05 | Quiet |

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