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Product: Daily Forecast of Geomagnetic Activity
Issued: 2024 September 30 06:14UTC
Prepared by the Athens Space Weather Forecasting Center
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**I. Solar activity**
*--Current Status*
Solar Flux (10.7cm) measured on 29.09.2024 at 23:00 UTC was 197 sfu.
The background X-Ray flux is at the class C2.3 level.
Three M-class solar flares were produced on September 29 and the largest was the M1.8.
AR3842 erupted on September 29 at 14:24 UT peak time producing a M1.8 class solar flare and a radio blackout of category R1.
No obviously Earth directed CMEs were observed in available LASCO imagery on September 27-29.
An equatorial coronal hole (CH1244) was in an Earth facing position on September 25-26.

**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 527 Km/s on September 30 at 03:00 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 -10 nT on September 30 at 00:00 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 September 30 due to the effect of coronal hole high speed stream, at quiet to unsettled levels on October 01 and at quiet levels on October 02.

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| **Date** | **Ap index forecast** | **Geomagnetic Activity level** |
| 30.09.2024 | 12 | Quiet to Active |
| 01.10.2024 | 08 | Quiet to Unsettled |
| 02.10.2024 | 05 | Quiet |

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Athens Space Weather Forecasting Center
Physics Department, National & Kapodistrian University of Athens
Athens Neutron Monitor Station A.NE.MO.S
Tel.: +30 210 727 6901
email: spaceweather@phys.uoa.gr
URL: http://spaceweather.phys.uoa.gr
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