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Product: Daily Forecast of Geomagnetic Activity
Issued: 2024 February 11 08:26UTC
Prepared by the Athens Space Weather Forecasting Center
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**I. Solar activity**
*--Current Status*
Solar Flux (10.7cm) measured on 10.02.2024 at 23:00 UTC was 194 sfu.
The background X-Ray flux is at the class C1.8 level.
Three M class solar flares were produced on February 10 and the biggest was the M9.0. AR3576 erupted on February 10 at 23:07 UT peak time producing a M9.0 class solar flare and a radioblackout of category R2.
No obviously Earth directed CMEs were observed in available LASCO imagery on February 07-08.
---CME arrival forecast
A CME was observed on February 10 at 07:00 UT from AR3576. This CME could reach Earth on February 12 between 11:20 UT and 22:51 UT according to EAM predictions.

**II. Solar Energetic Particle Events**
GOES Proton Flux for particles with energies above 10 MeV exceed the SWPC 10 MeV warning threshold on February 09 at 15:30 due to the X3.4 solar flare. 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 511 Km/s on February 11 at 07:35 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 -11 nT on February 11 at 02:45 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 unsettled levels with Kp=3.

**IV. 3-day Geomagnetic Activity Forecast**
The geomagnetic field is expected to be at quiet to active levels on February 11 and at quiet to minor storm (G1) levels on February 12-13 due to effect of the CME observed on February 10.

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| **Date** | **Ap index forecast** | **Geomagnetic Activity level** |
| 11.02.2024 | 10 | Quiet to Active |
| 12.02.2024 | 18 | Quiet to Minor storm (G1) |
| 13.02.2024 | 15 | Quiet to Minor storm (G1) |

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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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