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Product: Daily Forecast of Geomagnetic Activity
Issued: 2024 February 13 05:07UTC
Prepared by the Athens Space Weather Forecasting Center
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**I. Solar activity**
*--Current Status*
Solar Flux (10.7cm) measured on 12.02.2024 at 23:00 UTC was 208 sfu.
The background X-Ray flux is at the class C1.7 level.
Four M class solar flares were produced on February 12 and the biggest was the M6.5.AR3576 erupted on February 12 at 03:48 UT peak time producing a M6.5 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 was expected to reach Earth on February 12 between 11:20 UT and 22:51 UT according to EAM predictions.
Another partial halo was observed on February 10 at 23:36 UT from AR3576 after the M9.0 class solar flare. This CME could reach Earth on February 13 between 01:00 UT and 14:22 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 12 at 08:00. 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 536 Km/s on February 12 at 11:20 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 February 13 at 02:35 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=2.

**IV. 3-day Geomagnetic Activity Forecast**
The geomagnetic field is expected to be at quiet to minor storm (G1) levels on February 13-14 due to effects of CMEs observed on February 10 and at quiet levels on February 15.

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| **Date** | **Ap index forecast** | **Geomagnetic Activity level** |
| 13.02.2024 | 30 | Quiet to Minor storm (G1) |
| 14.02.2024 | 15 | Quiet to Minor storm (G1) |
| 15.02.2024 | 07 | Quiet |

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