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Product: Daily Forecast of Geomagnetic Activity
Issued: 2025 January 23 04:43UTC
Prepared by the Athens Space Weather Forecasting Center
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**I. Solar activity**
*--Current Status*
Solar Flux (10.7cm) measured on 22.01.2025 at 23:00 UTC was 214 sfu.
The background X-Ray flux is at the class C3.9 level.
AR3961 erupted on January 22 at 11:08 UT peak time producing a M1.4-Class solar flare and a radio blackout of category R1.
No obviously Earth directed CMEs were observed in available LASCO imagery on January 19-20.
A CME was observed on January 21 at 10:53 UT. The source is the M3.4 class solar flare. This CME could reach Earth on January 24 between at 08:20 UT and at 08:58 UT according to EAM predictions.
Another CME was observed on January 22 at 11:36 UT. This CME could reach Earth on January 25 between at 09:29 UT and at 11:12 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 485 Km/s on January 22 at 10:15 UT during the last 24 hours.
The solar wind speed from STEREO A was detected 500 Km/s during the last 24 hours.
The vertical component of IMF Bz reached the max value -5 nT on January 22 at 09:35 UT during the last 24 hours.
The geomagnetic field was at quiet to unsettled 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 levels on January 23, at quiet to active levels on January 24 and at quiet to minor storm (G1) levels on January 25 due to the effects of CMEs observed on January 21-22.

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| **Date** | **Ap index forecast** | **Geomagnetic Activity level** |
| 23.01.2025 | 05 | Quiet |
| 24.01.2025 | 15 | Quiet to Active |
| 25.01.2025 | 25 | Quiet to Minor Storm (G1) |

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