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Product: Daily Forecast of Geomagnetic Activity
Issued: 2025 January 01 09:56UTC
Prepared by the Athens Space Weather Forecasting Center
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**I. Solar activity**
*--Current Status*
Solar Flux (10.7cm) measured on 31.12.2024 at 23:00 UTC was 218 sfu.
The background X-Ray flux is at the class C4.5 level.
Three M-class flares were produced on December 31 and the largest was the M2.9.
AR3938 erupted on December 31 at 22:50 UT peak time producing a M2.9-Class solar flare and a radio blackout of category R1.
---CME arrival forecast
A CME was observed on December 29 at 06:24 UT.The source is associated with the M2.0 solar flare from AR3939 (S17E30) starting on December 29 at 04:40 UT. This CME was expected to reach Earth on December 31 between at 09:46 UT and at 21:48 UT.

**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 543 Km/s on January 01 at 05:50 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 December 31 at 19:00 UT during the last 24 hours.
The geomagnetic field was at quiet to minor storm (G1) levels during the last 24 hours.
The Kp index now is at minor storm (G1) levels with Kp=5.

**IV. 3-day Geomagnetic Activity Forecast**
The geomagnetic field is expected to be at quiet to minor storm (G1) levels on January 01 and at quiet to unsettled levels on January 02-03.

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| **Date** | **Ap index forecast** | **Geomagnetic Activity level** |
| 01.01.2025 | 20 | Quiet to Minor Storm (G1) |
| 02.01.2025 | 08 | Quiet to Unsettled |
| 03.01.2025 | 06 | Quiet to Unsettled |

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