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Product: Daily Forecast of Geomagnetic Activity
Issued: 2023 December 21 05:00 UTC
Prepared by the Athens Space Weather Forecasting Center
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I. Solar activity --Current Status Solar Flux (10.7cm) measured on 20.12.2023 at 23:00 UTC was 179 sfu. The background X-Ray flux is at the class C1.5 level. No obviously Earth directed CMEs were observed in available LASCO imagery on December 17-19. A coronal hole (CH1193) at northern hemisphere was Earth facing on December 14-16. A coronal hole (CH1194) at southern hemisphere was Earth facing on December 18-19.

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 566 Km/s on December 20 at 05:05 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 -4 nT on December 20 at 09:45 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. The Dst index reached the value -35 nT on December 20 at 05:00 UT during the last 24 hours.

IV. 3-day Geomagnetic Activity Forecast The geomagnetic field is expected to be at quiet to unsettled levels on December 21 and at quiet levels on December 22-23.

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| **Date** | **Ap index forecast** | **Geomagnetic Activity level** |
| 21.12.2023 | 10 | Quiet to Unsettled |
| 22.12.2023 | 05 | Quiet |
| 23.12.2023 | 05 | Quiet |

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