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Product: Daily Forecast of Geomagnetic Activity

Issued: 2023 December 20 05:04UTC

Prepared by the Athens Space Weather Forecasting Center

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I. Solar activity

--Current Status

Solar Flux (10.7cm) measured on 19.12.2023 at 23:00 UTC was 161 sfu.

The background X-Ray flux is at the class C2.7 level.

No obviously Earth directed CMEs were observed in available LASCO imagery on December 16-18.

A coronal hole (CH1193) at northern hemisphere was Earth facing on December 14-16.

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 635 Km/s on December 19 at 14:20 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 -6 nT on December 20 at 00:40 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 active levels with Kp=4.

The Dst index reached the value -46 nT on December 19 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 active levels on December 20, at quiet to unsettled levels on December 21 and at quiet levels on December 22.

Date Ap index forecast Geomagnetic Activity level

20.12.2023 12 Quiet to Active

21.12.2023 08 Quiet to Unsettled

22.12.2023 05 Quiet

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