\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  
Product: Daily Forecast of Geomagnetic Activity  
Issued: 2024 December 23 07:20UTC  
Prepared by the Athens Space Weather Forecasting Center  
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  
  
**I. Solar activity**  
*--Current Status*  
Solar Flux (10.7cm) measured on 22.12.2024 at 23:00 UTC was 223 sfu.  
The background X-Ray flux is at the class C3.3 level.  
Three M-class solar flares were produced on November 22 and the largest was the M1.2.  
AR3932 erupted on December 22 at 20:49 UT peak time producing a M1.2-Class solar flare and a radio blackout of category R1.  
No obviously Earth directed CMEs were observed in available LASCO imagery on December 18-20.  
A coronal hole (CH1263) at southern hemisphere rotated across the central meridian on December 19-20.  
  
**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 716 Km/s on December 22 at 18:25 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 22 at 20:15 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 quiet levels with Kp=2.  
  
**IV. 3-day Geomagnetic Activity Forecast**  
The geomagnetic field is expected to be at quiet to unsettled levels on December 23-25.

|  |  |  |
| --- | --- | --- |
| **Date** | **Ap index forecast** | **Geomagnetic Activity level** |
| 23.12.2024 | 08 | Quiet to Unsettled |
| 24.12.2024 | 08 | Quiet to Unsettled |
| 25.12.2024 | 08 | Quiet to Unsettled |

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  
Athens Space Weather Forecasting Center  
Physics Department, National & Kapodistrian University of Athens  
Athens Neutron Monitor Station A.NE.MO.S  
Tel.: +30 210 727 6901  
email: spaceweather@phys.uoa.gr  
URL: http://spaceweather.phys.uoa.gr  
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*