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Product: Daily Forecast of Geomagnetic Activity  
Issued: 2024 October 20 06:30UTC  
Prepared by the Athens Space Weather Forecasting Center  
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**I. Solar activity**  
*--Current Status*  
Solar Flux (10.7cm) measured on 19.10.2024 at 23:00 UTC was 162 sfu.  
The background X-Ray flux is at the class C2.9 level.  
Two M-class flares were produced on October 19 and the largest was the M6.5.  
AR3854 erupted on October 19 at 06:56 UT peak time producing a M6.5 class solar flare and a radio blackout of category R2.  
No obviously Earth directed CMEs were observed in available LASCO imagery on October 16-18.  
A coronal hole (CH1247) rotated across the central meridian on October 14-16.  
Another coronal hole (CH1248) at northern hemisphere was Earth facing on October 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 470 Km/s on October 19 at 20:25 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 -7 nT on October 19 at 08:50 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 active levels on October 20 and 22 due to effect of the coronal hole high speed stream and at quiet to unsettled levels on October 21.

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| **Date** | **Ap index forecast** | **Geomagnetic Activity level** |
| 20.10.2024 | 12 | Quiet to Active |
| 21.10.2024 | 08 | Quiet to Unsettled |
| 22.10.2024 | 12 | Quiet to Active |

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