

April 2024 has been a more active month in the sense of solar activity. A number of 189 coronal mass ejections (CMEs) has been spotted, 5 CMEs with angular width $90^\circ < \alpha < 180^\circ$, 0 CME with angular width $180^\circ < \alpha < 270^\circ$ and 1 HALO CME recorded in this month, resulting into distinct modulation of the galactic cosmic rays (GCRs) (source: <http://sidc.oma.be/cactus/catalog.php>). April was less productive month than April in the sense of solar flares (SFs). A number of 47 M-class and 0 X-class solar flares were spotted this month (<https://solarmonitor.org>), the most energetic one being a M9.5 flare on April 30 at 23:46 UT (peak time) from the AR3654 (Figure 1).

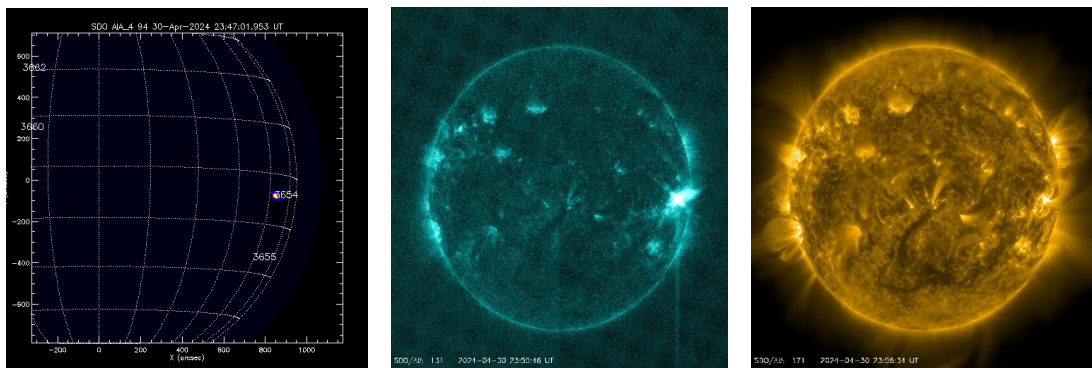


Figure 1: The M9.5 solar flare of April 30 at 23:46 UT peak time (from <https://www.lmsal.com/solarsoft> and <http://sdo.gsfc.nasa.gov/data/aiahmi/>).

April was less active month in the sense of geomagnetic activity in contrary to previous months. The interaction of CME effects combined with high-speed solar wind streams from coronal holes caused geomagnetic storms on April 16, 19 and 26. The biggest geomagnetic storm reached the level G3 for 3 hours on April 19 (Figure 2). This storm was noticed due to the effects of the CME that was observed on the Sun on April 15.

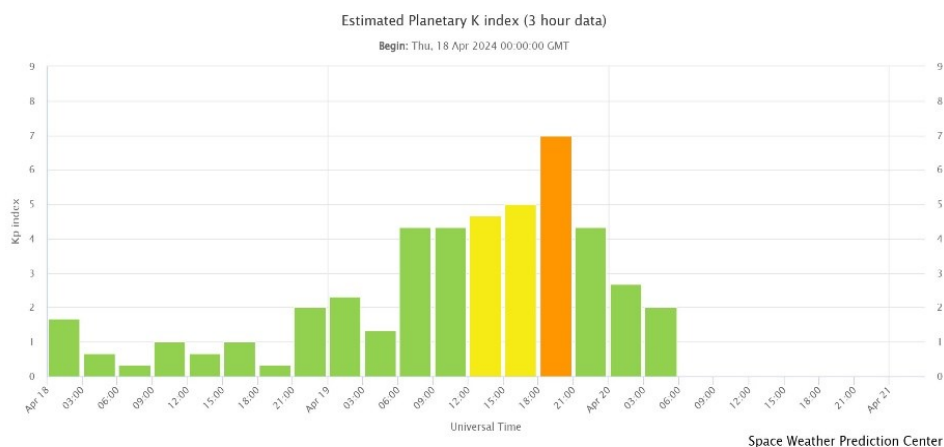


Figure 2: The Kp index values during the geomagnetic storm of April 19. (<http://www.swpc.noaa.gov/products/planetary-k-index>)

The results of these events during this month were spotted on the cosmic ray intensity, recorded at Athens Neutron Monitor Station (cut-off rigidity 8.53 GV).

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