

Newsletter Cosmic Rays / May 2017

May 2017 has been a less active month in the sense of geomagnetic activity. A number of 28 CMEs has been spotted with 1 CME with angular width $90^{\circ} < da < 180^{\circ}$ resulting into distinct modulation of the galactic cosmic rays (source: http://sidc.oma.be/cactus/catalog.php). May was a less active month in the sense of proton flux levels of solar flares (SFs). A number of only 5 SFs were spotted, the most energetic one being a C1.3 on 31/05/2017 at 18:41 UT (start time) from AR2661 with coordinates N04E89 (Fig. 1).

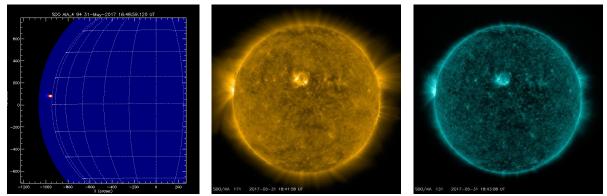
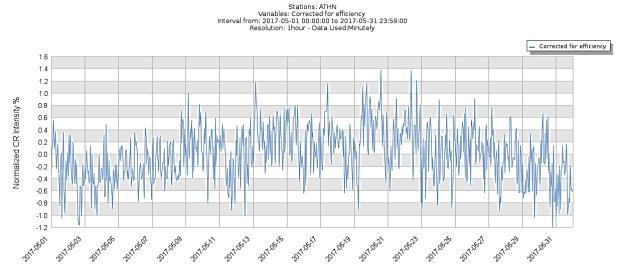


Figure 1: The C1.3 SF of 31/05/2017 at 18:48 UT peak time (from http://www.lmsal.com/solarsoft and http://sdo.gsfc.nasa.gov/data/aiahmi/)

The interaction of one CME and high speed streams of solar wind from large coronal holes with Earth's magnetosphere on May 27-28 and May 15, 19-20 respectively, triggered geomagnetic storms of G3 and G1 levels respectively. The results of these events were spotted on the cosmic ray intensity as Forbush decreases during this month, recorded at Athens Neutron Monitor Station (cut-off rigidity 8.53 GV) with amplitudes varied from 1% up to almost 2.5% (Fig. 2).



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Figure 2: Hourly corrected for pressure and efficiency values of the cosmic ray intensity recorded by Athens Neutron Monitor Station from 01-31/05/2017 (From the multi station data service of Athens NM Station).

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