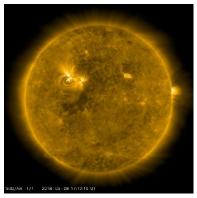
Newsletter Cosmic Rays / May 2018

May 2018 has been a more active month than April in the sense of geomagnetic activity. A number of only 16 CMEs has been spotted (source http://sidc.oma.be/cactus/catalog.php) with only one CME with angular width 90° < w < 180° . These CMEs together with the high-speed streams of solar wind for this month resulted to a distinct modulation of the galactic cosmic rays. May was a more active month in the sense of proton flux levels of solar flares (SFs) in contrary to April. A number of only three solar flares with magnitude > C1.0, was recorded during this period. The most energetic solar flare was a C2.7 noticed on 28/05/2018, 17:10UT (peak time) with coordinates N14E24 (Fig. 1).



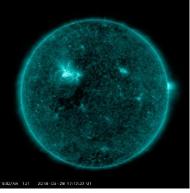
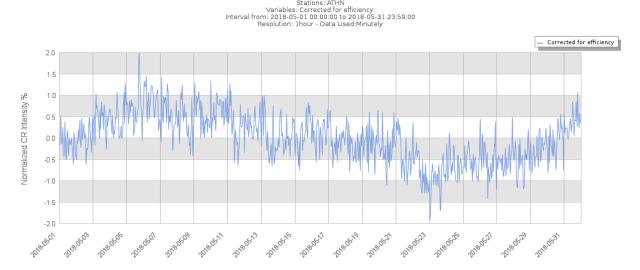


Figure 1: The C2.7 solar flare of 28/05/2018 at 17:10 UT peak time (from http://www.lmsal.com/solarsoft and https://www.solarmonitor.org)

The interaction of a high-speed solar wind stream from a coronal hole on May 5-7 triggered a moderate geomagnetic storm of G2 level. Active conditions noticed also on May 8-11, 17 and 31 as a result of the interaction of a high-speed solar wind streams from coronal holes. The results of these events during this month were spotted on the cosmic ray intensity as Forbush effects, recorded at Athens Neutron Monitor Station (cut-off rigidity 8.53 GV) with amplitudes varied from 0.5% up to almost 3% (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 01-31/05/2018

(From the multi station data service of Athens NM Station)

Prof H Mavromichalaki