

Newsletter Cosmic Rays / January 2017

January 2017 has been a less active month in the sense of geomagnetic activity. A number of only 31 CMEs has been spotted, with only 1 CME with angular width 90° < da < 180° resulting into distinct modulation of the galactic cosmic rays (source: http://sidc.oma.be/cactus/catalog.php). January was a very quiet month in the production rate of solar flares (SFs). A number of only 8 SFs were spotted, the most energetic one being a C9.3 SF on 21/01/2017 at 07:14 UT (start time) from the site with coordinates N10E44 (Fig. 1).

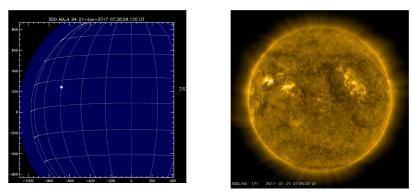
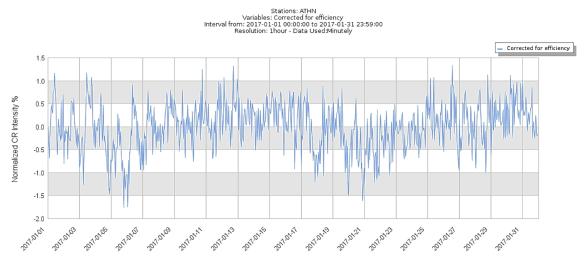


Figure 1: The C9.3 SF of 21/01/2017 at 07:26 UT peak time (from http://www.lmsal.com/solarsoft and http://sdo.gsfc.nasa.gov/data/aiahmi/)

The interaction of high speed streams of solar wind from large coronal holes with Earth's magnetosphere on January 26-27 was triggered a geomagnetic storm of G1 level. The results of this event, as well as the disturbances on Jan. 03-10 and 18-21, were spotted on the cosmic ray intensity as a series of Forbush decreases during this month, recorded at Athens Neutron Monitor Station (cut-off rigidity 8.53 GV) with amplitudes varied from 1.5% up to almost 2.5% (Fig. 2).



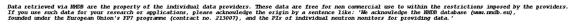


Figure 2: Hourly corrected for pressure and efficiency values of the cosmic ray intensity recorded by Athens Neutron Monitor Station from 01-31/01/2017 (From the multi station data service of Athens NM Station).

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