

August 2015 has been an active month in the sense of solar activity. A number of 102 CMEs have been spotted, with 4 CMEs with angular width $90^\circ < da < 180^\circ$, 1 CME with $180^\circ < da < 270^\circ$ and 1 HALO CME resulting into distinct modulation of the galactic cosmic rays (source: <http://sidc.oma.be/cactus/catalog.php>). August was an active month in the production rate of solar flares (SFs). A number of 160 solar flares were spotted with 148 C- and 12 M-class SFs, the most energetic one being a M5.6 on 24/08/2015 at 07:35 UT from the AR 12403, S14E00 (Fig. 1).

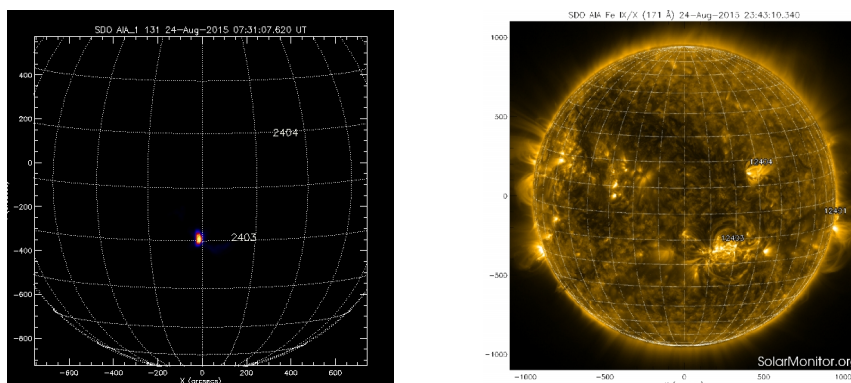


Figure 1: The M5.6 solar flare of 24/08/2015 at 07:35 peak time (from solarmonitor.org)

The interaction of high speed streams of solar wind with Earth's magnetosphere on August 7 and 27 and the arrival of a CME on August 15 had as a result a series of geomagnetic storms G1-G2 and G3 respectively. The result of these events were spotted on the cosmic ray intensity as a series of Forbush decreases starting from August 7 with an amplitude of 3.5% on August 17 recorded at Athens Neutron Monitor (NM) Station. Hourly values of the cosmic ray intensity from the Athens NM station (cut-off rigidity 8.53 GV) are illustrated in Fig. 2.

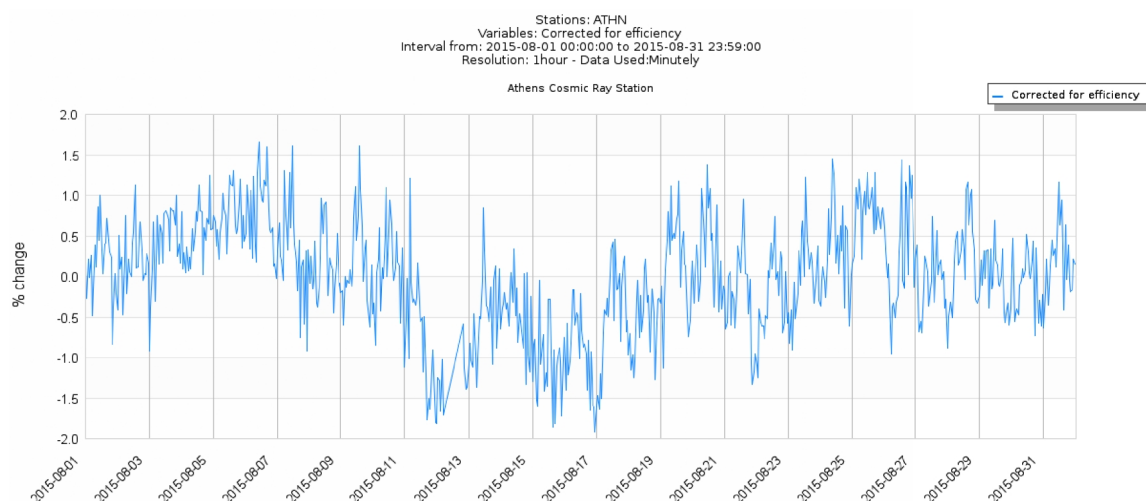


Figure 2: Corrected for pressure and efficiency hourly values of the Athens Neutron Monitor Station from 01-31/08/2015 (From multi station service of Athens CR Station).

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