

September 2016 has been a very active month in the sense of geomagnetic activity. A number of 51 CMEs has been spotted, with only 1 CME with angular width $90^\circ < \text{d}\alpha < 180^\circ$ resulting into distinct modulation of the galactic cosmic rays (source: <http://sidc.oma.be/cactus/catalog.php>). September was a very quiet month in the production rate of solar flares (SFs). A number of only 9 SFs were spotted, the most energetic one being a C5.6 on 22/09/2016 at 05:40 UT (start time) from the site with coordinates: N10W89 (Fig. 1).

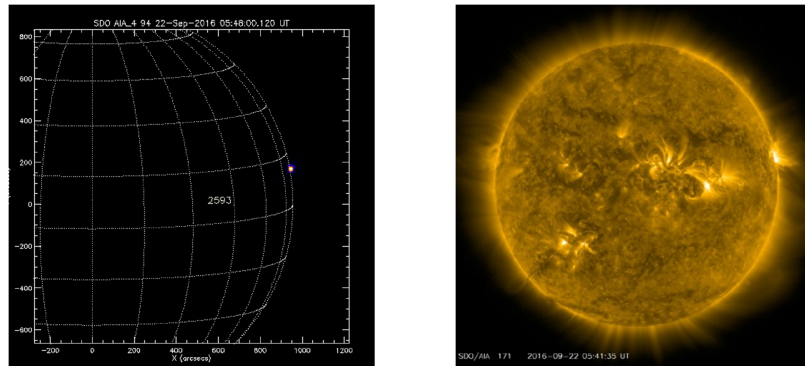
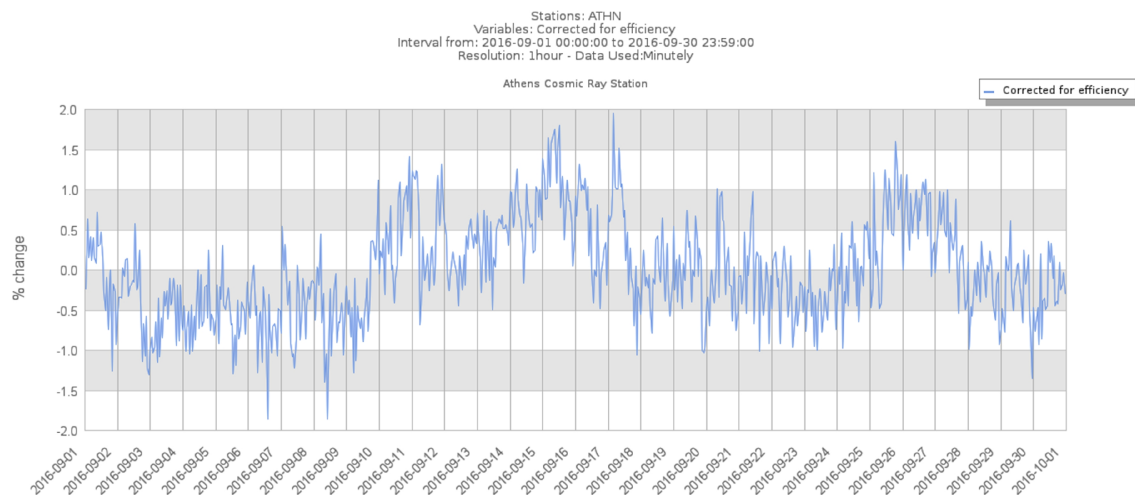


Figure 1: The C5.6 SF of 22/09/2016 at 05:47 UT peak time (from <http://www.lmsal.com/solarsoft> and <http://sdo.gsfc.nasa.gov/data/aiahmi/>)

The interaction of high speed streams of solar wind with Earth's magnetosphere on September 1-7, 20 and 25-30 had as a result a series of geomagnetic storms varying from G1 up to G2. The results of these events 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 2.5% up to 4% (Fig. 2).



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Figure 2: Hourly corrected for pressure and efficiency values of the cosmic ray intensity recorded at Athens Neutron Monitor Station from 01-30/09/2016 (From the multi station data service of Athens NM Station).

Contact: Prof. H. Mavromichalaki
 Email: emavromi@phys.uoa.gr
<http://cosray.phys.uoa.gr>