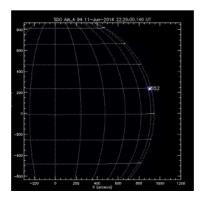


Newsletter Cosmic Rays / June 2016

June 2016 has been at the same levels as May 2016 in the sense of solar activity. A number of 72 CMEs has been spotted, with only 2 CMEs with angular width 90° < da < 180° resulting into distinct modulation of the galactic cosmic rays (source: http://sidc.oma.be/cactus/catalog.php). June was also a very quiet month in the production rate of solar flares (SFs). A number of only 6 C-class SFs were spotted, the most energetic one being a C6.5 one on 11/06/2016 at 21:59 UT (start time) from the AR 12552, N14W79 (Fig. 1).



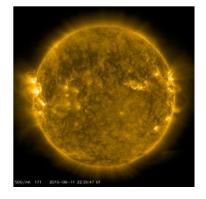
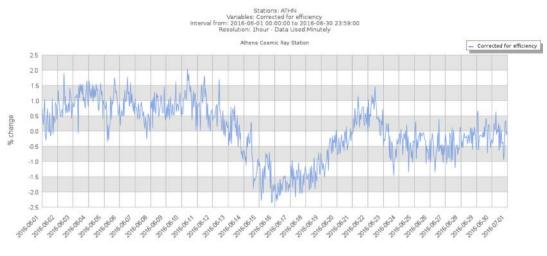


Figure 1: The C6.5 SF of 11/06/2016 at 22:28 UT peak time (from http://www.lmsal.com/solarsoft and http://sdo.gsfc.nasa.gov/data/aiahmi/)

The interaction of high speed solar wind streams with Earth's magnetosphere had as a result two geomagnetic storms on June 5-6 and 14-15 (G1 and G2, respectively). The results of these events, as well as disturbances on June 11-12 and 22-24 without storm effects, 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 3% to 4.5% (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 01-30/06/2016 (From the multi station data service of Athens NM Station).

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