

September 2015 has been an active month in the sense of solar activity. A number of 98 CMEs have been spotted, with 2 CMEs with angular width $90^\circ < \text{da} < 180^\circ$ and 2 HALO CMEs resulting into distinct modulation of the galactic cosmic rays (source: <http://sidc.oma.be/cactus/catalog.php>). September was an active month in the production rate of solar flares (SFs). A number of 154 solar flares were spotted with 130 C- and 24 M-class SFs, the most energetic one being a M7.6 one on 28/09/2015 at 14:53 UT from the AR 12422, S20W28 (Fig. 1).

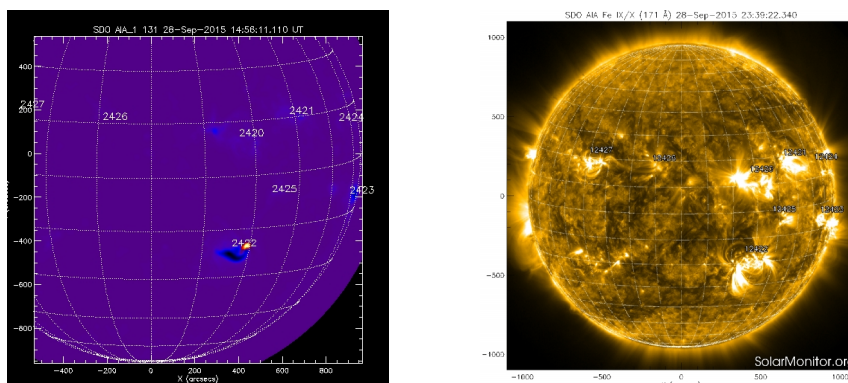


Figure 1: The M7.6 solar flare of 28/09/2015 at 14:58 peak time (from solarmonitor.org)

The interaction of high speed solar wind streams with Earth's magnetosphere on September 9, 2015 and of another one with the almost simultaneously arrival of a minor CME on September 11, 2015 had resulted to a series of geomagnetic storms G2 and G3, respectively. The influence of these events were spotted on the cosmic ray intensity as a series of Forbush decreases starting from late hours of September 8, 2015 with an amplitude of 4% on September 11, 2015 recorded at Lomnický štít Neutron Monitor Station. Hourly values of the cosmic ray intensity from the Lomnický štít station (cut-off rigidity 3.84 GV) are illustrated in Fig. 2.

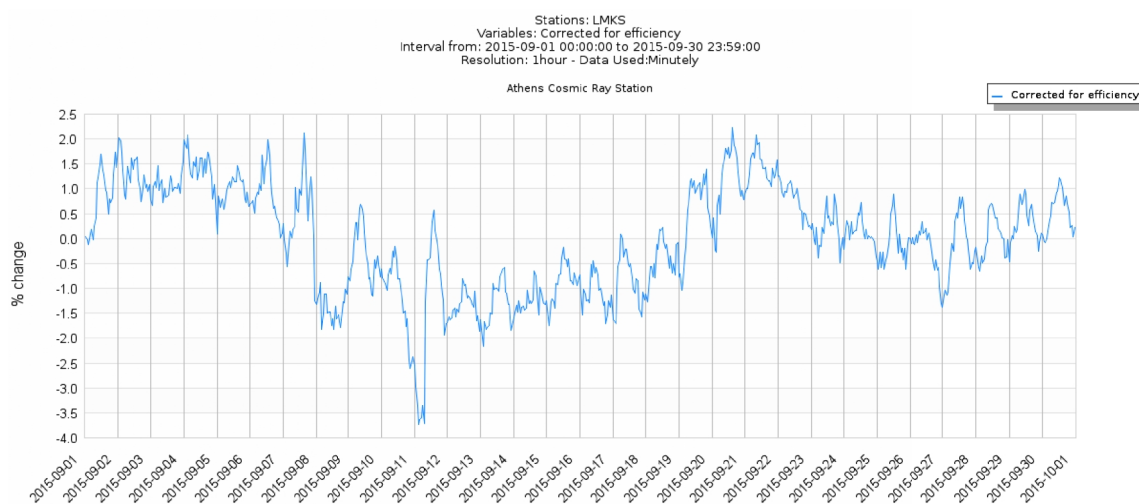


Figure 2: Hourly corrected for pressure and efficiency values of the Lomnický štít (Slovakia) Neutron Monitor Station from 01-30/09/2015 (From multi station service of ANeMoS).

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