



Solar and Earth environment observations associated to active region #10759 and its effects

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In this paper we will present an overview of a solar event that occurred on 13th May 2005 and some of its consequences to the Earth environment. A M8 solar flare erupted from the active region #10759 at 16:57 UT. The blast produced a Coronal Mass Ejection at 17:42 UT which was directed toward the Earth. On 15th May, the cloud compressed the magnetosphere and produced a geomagnetic storm. Although the particle density was low, a high value of the Interplanetary Magnetic Field's southwardly directed component (B_z) favoured the particle precipitation into the atmosphere. The index Dst arrived at values down to -256nT and Kp index reached severe values for 24 hours. The effects on the ionosphere due to this solar event have been analyzed. At middle latitudes, the F2 layer uplifted and the critical frequency decreased reducing the Total Electron Content. These effects have been observed using both ionosonde and GPS data.