

# **Possible connections between the twist inversions of the solar active region NOAA 10720 and the Violent Solar Flare Class X and the spatial and geomagnetic disturbances**

W.R. Guevara Day, H. Rivero

Comisión Nacional de Investigación y Desarrollo Aeroespacial - CONIDA, Lima Perú.  
(walter@conida.gob.pe / Phone: +51 1 4429973)

We study the active region (AR) NOAA 10720 (N13L179) that produced three X class flare between January 15<sup>th</sup> and 17<sup>th</sup> of 2005. The first of these events was an X1.2 at 0039 UT and the second an X2.6 at 2302UT for January 15<sup>th</sup>, this last flare was associated with a faster asymmetric full-halo CME. The last event was an X3.8 class at 0952UT and was associated with a complex NW directed full-halo CME. Tian et al (2002, SoPh 209: 361-374) established some parameters to defining a active region as a Violent Super Active Region (VSAR) so has a longitudinal activity band and this two characteristic the AR NOAA 10720 will be a VSAR. We show preliminary results for the possible connection of the sudden inversion of the rotation of this AR and the solar intense flare class X produced after and the consequence in our high atmosphere.