November, 2004 magnetic storm: Solar, heliospheric, and magnetospheric disturbances

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We present and discuss main data on observations of the Sun, interplanetary medium, and magnetosphere, obtained before and during the strongest magnetic storm with Dst= -373 nT on November 08, 2004 (see preliminary version in paper by Yermolaev et al., A Year Later: Solar, Heliospheric, and Magnetospheric Disturbances in November 2004, Geomagnetism and Aeronomy, Vol. 45, No. 6, 2005, http://solarwind.cosmos.ru/txt/gma681.pdf). These events were observed in year after the series of the strongest solar flares (including flares of class $>$ X17) and the magnetic storm with Dst = -401 and - 472 nT during October - November 2003. Although the number and power of the flares were much smaller during the period under study, the magnetic storm was one of the strongest for the entire period of observation of the Dst index and was apparently caused by the interaction of frequently occurred coronal mass ejections in the interplanetary space, as a result of which the region of interaction compressed and the southern IMF component increased to less than -45 nT. Paper is supported in part by RFBR, grant 04-02-16131.