



## **A TEC positive effect of a major geomagnetic storm over Europe**

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On January 22, 2004 a very pronounced increase of vertical Total Electron Content (TEC) was observed over the European sector at several locations from Rabat (Lat. 33.98 N, Long. 353.14 E) to Potsdam (Lat. 52.38 N, Long. 13.07 E) associated to a major geomagnetic storm characterized by a Dst minimum value of -149 and daily Ap index of 64. Unusual values of TEC up to three times the corresponding median value for the month have been observed in this occasion. It has to be noted that geomagnetic storms over the European sector produces generally a negative effect over TEC. The presence of the observed positive effects of the storm is described and discussed in detail. Ionosonde data from the region are also analyzed.