

QUANTITATIVE ESTIMATION METHOD TO CORRECT BY DAILY VARIATION THE MAGNETIC SURVEYS

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The main source of the daily variations of the geomagnetic field are the current systems located in the magnetopause, plasmasphere, "ring currents", magnetotail and ionosphere. These variations are produced by the interaction of particles for the former three current systems, and by the photonic interaction in order to the fourth system. Quantitative methods based on the determination of nocturnal intervals of minimum magnetic activity (according to the a_p index) are detailed. These methods will be applied, a posteriori, as Nocturnal Reference Level to determine the residual daily variation. We select the five quiet international monthly days in the (0-3) UT hours intervals to obtain minimum statistical dispersion in low solar activity. The results are presented using the quiet days selected in the Trelew Geomagnetic Observatory (Chubut, Argentina). These methods are used to correct all the offshore and terrestrial surveys realized, with geological application.