

# **ON THE GROUND-BASED $\Delta D$ DIURNAL VARIATIONS IN THE EQUATORIAL ELECTROJET INFLUENCE AREA IN THE AFRICAN LONGITUDE SECTORS**

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During the International Equatorial Electrojet Year (IEEY), the  $\Delta H$ ,  $\Delta Z$  and  $\Delta D$  diurnal variations of the geomagnetic field have been recorded across the dip-equator in West-Africa. During a former experiment in Central Africa, these same magnetic variations were recorded from 1968 to 1970. In this work we analyze the structure of the daily regular variation of the  $\Delta H$ ,  $\Delta Z$  and  $\Delta D$  and show the magnitude of  $\Delta D$  is far from being negligible with respect to that of  $\Delta H$  and  $\Delta Z$ . After describing its structure and seasonal variability, we make an attempt of interpreting, in term of equivalent current, the  $\Delta D$  variations as observed under the equatorial electrojet.

Equatorial electrojet, electric current, geomagnetic field, meridional current.