

Secular variation of ionospheric conductivity and geomagnetic Sq amplitude

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Effects of the secular variation of geomagnetic main field on the Sq field were examined for geomagnetic data in long period. It was predicted that weaking of the geomagnetic main field enhances the Sq field mainly because the weakening lifts the dynamo region where neutral wind blows more strongly. The results of the present analysis show that the Sq amplitude is increasing at the observatories where geomagnetic main field is declining.