

EARTH OBSERVATION SYMPOSIUM (B1)
Earth Observation Applications and Economic Benefits (5)

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TESTING AN IONOSPHERIC SIGNATURE ANOMALIES ANALYSIS METHOD ON KHARTOUM
(MS = 5.5) EARTHQUAKE**Abstract**

In this paper an ionospheric precursor's analysis method is applied to the earthquake event of Khartoum, took place on July 31, 1993 at 21:20:40 UT, which of magnitude (MS = 5.5). The precursor anomaly was checked out via a statistical method where bounds were calculated. In addition, the daily variation of the ionospheric parameter under study (f0F2) is delineated such that the percentage deviation of the ionospheric parameter is detected from being increase from the upper bound and decreasing from the lower bound. The resultant precursor is found to occur 8 days before the peak shock of the event of the earthquake took place in Khartoum. This could have help in reducing the effect of the earthquake on the people and environment. It was also found that the size or the magnitude of the detected ionospheric anomaly has a specific characteristic in that, it is much bigger than the one found on the literature's similar study. It is found that the size of the anomaly is (46.3 MHz), and its corresponding value of the percentage deviation is (612.30