

UNIVERSITI TEKNOLOGI MARA

**AN INVESTIGATION ON VLF VARIATIONS
FROM AWESOME ARRAY**

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ABSTRACT

Very Low Frequency (VLF) is the part of electromagnetic waves for radio waves especially used for military communication with submarines in the range of 3 kHz to 30 kHz. The purpose of this study is to perform variation of Very Low Frequency (VLF) due to space weather conditions, different distance between receiver and transmitter stations and day and night time. It has carried out VLF signal from Atmosphere Weather Electromagnetic System for Observation Modelling and Education (AWESOME) VLF Receiver. In analysis of VLF variation, amplitude data was observed from VLF receiver located at Universiti Kebangsaan Malaysia (UKM) to the four (4) chosen transmitter stations located at Datong, China (3SB), Ebino, Japan (JJI), Katabomman, India (VTX) and North West Cape, Australia (NWC). Three categories of data have been investigate for this study that is quiet day on 23rd May 2010, weak geomagnetic storm on 24th May 2010 and moderate geomagnetic storm on 30 May 2010.

Keywords: Very Low Frequency (VLF), Geomagnetic storm, AWESOME receiver

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