

TITLE: The Linkage between Geo-Magnetic Field Variations with Meteorological Parameters in the Caribbean

AUTHORS: Anil Bandoo
Kyon Esdelle

SUPERVISORS: Dr. Priscilla V. Pilli (University of the Southern Caribbean)
Dr. S. Haque



The geo-magnetic field data was taken as the K- Planetary values. The K-index is quasi-logarithmic local index of the 3-hourly range in magnetic activity relative to an assumed quiet-day curve for a single geomagnetic observatory site. K_p is the mean standardized K-index from 13 geomagnetic observatories between 44 degrees and 60 degrees northern or southern geomagnetic latitude. This value is taken as a constant over the entire Earth. The meteorological parameters that are being considered, in detail, are wind-speed, and pressure of the hurricane event. Other parameters were looked at as well. Graphs were constructed using wind-speed, pressure, and K_p values for different storms that passed within the Caribbean Sea between Trinidad and the Yucatan Peninsula and between South America and the Tropic of Capricorn, within the years 2004 to 2007. From these graphs an attempt to formulate a scientific relationship between the geo-magnetic field variation with meteorological parameters, in the Caribbean was made.