

ABSTRACT NO.: 542

TITLE: **The Study of the Daily Geomagnetic Variations with Hurricane Parameters**

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This study examines the relationship between the daily geomagnetic activities and hurricanes parameters. It particularly looks at the effects of geomagnetic storms on the parameters of hurricanes. For the study, nine hurricanes, which occurred over the time period of 2004-2006, were investigated using data gathered from NOAA (National Oceanic and Atmospheric Administration.) The gathered data were graphed for the relationships of wind speed and pressure versus AA magnetic values and using Microsoft Office software the correlation coefficient are determined.

From the results it would seem that, for all but one, a positive correlation existed between the pressure and magnetic fluctuations where as a negative correlation was seen for the wind speed and geomagnetic fluctuations. The values for the correlations however were low and leading to the conclusion that daily geomagnetic activity might not greatly affect parameters of the hurricane. For the determination of the effect of geomagnetic storm of parameters a comparative look at the hurricane categories, that is, maximum wind speed and minimum pressure are observed and lead to the conclusion that they may indeed affect the intensity of the hurricane owing to the higher percentage of high category hurricanes observed after geomagnetic storms.

