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Title: Linkage between Geomagnetic activity, variability of Total Ozone during July- September of the Hurricane season over the Atlantic Ocean (2003-2007)

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Recent geophysical studies have proven with sufficient degrees of certainty that variations in Ozone levels (from surface ozone to upper atmospheric ozone) are closely related to the formation, intensification and the movement of hurricanes. The major objective of this project is to not only confirm this link but additionally we have attempted to show any possible relation between Geomagnetic activity; through analysis of Kp data, and the above mentioned phenomena. To show possible correlation (ie. between Geomagnetic and Ozone Variations) and their influence on, or how they are affected by hurricane activity, as the hurricane moves across the Atlantic, we carefully analyzed the Geomagnetic and Ozone data collected by credible sources prior, during and shortly after twelve (12) major hurricanes over the last three years, (focus was placed on the hurricane track between 5- 31 degrees north latitude). With the use of minitab software, dual axis graphs were plotted allowing the observation of any trends. Additionally we were able to conduct statistical analysis which aided greatly in the deduction of any mathematical relationship between the variations of these parameters. As expected, notable relationship between hurricane activity and that of Ozone surface ozone variations, while only through ANOVA analyses of plots were we able to detect the magnitude of the functional relationship of Geomagnetic activity during the hurricanes. The results obtained from this project have supported the theory that ozone variation has impact on hurricanes, specifically on Hurricane intensity. The Ozone, Geomagnetic correlation still remains a little inconclusive.