

Abstract Submitted
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Atmospheric Ionization Measurements¹ THOMAS SLACK, RILEY MAYES, Loyola University New Orleans — The measurement of atmospheric ionization is a largely unexplored science that potentially holds the key to better understanding many different geophysical phenomena through this new and valuable source of data. Through the LaACES program, which is funded by NASA through the Louisiana Space Consortium, students at Loyola University New Orleans have pursued the goal of measuring high altitude ionization for nearly three years, and were the first to successfully collect ionization data at altitudes over 30,000 feet using a scientific weather balloon flown from the NASA Columbia Scientific Ballooning Facility in Palestine, TX. In order to measure atmospheric ionization, the science team uses a lightweight and highly customized sensor known as a Gerdien condenser. Among other branches of science the data is already being used for, such as the study of aerosol pollution levels in the atmosphere, the data may also be useful in meteorology and seismology. Ionization data might provide another variable with which to predict weather or seismic activity more accurately and further in advance. Thomas Slack and Riley Mayes have served as project managers for the experiment, and have extensive knowledge of the experiment from the ground up.

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