

Science Team

Project 4

Title: Characterizing Hurricanes using Meteorological Data and GIS

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Design Team Membership: Science Design Team

IT/STEM Tools Used: GPS/GIS

Project Overview: Hurricanes produce heavy rains and strong winds, which contribute to death and destruction and are the basis for a number of hurricane categorization systems. Among the defining hurricane characteristics are wind speed and storm surge, which are neatly organized in the on-line Geographic Information Systems (GIS). The purpose of this study was to evaluate certain characteristics of Category 1 Hurricane Danny and Category 5 Hurricane Ivan using the Saffir-Simpson Hurricane Scale. Damages and number of fatalities caused by other common hurricanes were correlated with category to better understand the variable geographic distribution of human resources affected by hurricanes of varying magnitude.