DISCUSSION

When a tropical cyclone threatens a given location, the focus is typically on issues such as “When will tropical storm force winds begin to affect that location?” and “What will the maximum winds be and when will those winds be experienced at that location?” While these questions are important, when considering an evacuation, especially the evacuation of general aviation aircraft, another important question is “What will the weather conditions be just prior to the time a tropical cyclone affects a location (i.e., during the time when an evacuation is being carried out)?”

Being able to quantify the amount of time before conditions deteriorate for a number of storms will help us to better understand how to prepare and may give insight into the overall evolution of tropical cyclones. To accomplish this, storm tracks and reports from the National Hurricane Center and surface hourly data from the National Climatic Data Center were used to create analyses of aviation weather conditions for the 120 hours leading up to the first tropical storm force winds experienced at an observing site. Analyses were created for each individual storm as well as aggregates of storms based on strength, location of impact, and time of impact.

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REFERENCES

