Rapid Intensification of Hurricanes in the Atlantic Basin

Carter, Cameron (School: Ocean Lakes High School)

There is a growing concern within the meteorological community regarding how the world should be handling the forecasting of tropical cyclones. Rapid intensification is happening more and more often, but the systems used are not good at reliably predicting five or more days out whether a storm will rapidly intensify or not. This research and project are aimed at reliably, and efficiently predict tropical storms and their subsequent intensification. Weather buoys were utilized, alongside storm archives through the National Weather Service's subdivision, the National Hurricane Center, to create a model that is able to predict Rapid Intensification solely through water temperature as a proof of concept. Now, the foundation has been laid to allow the researcher further study in a university setting to make a much more sophisticated model that can do all of the things this project does manually, but automatically, and without any human interaction needed at all, whatsoever.

Awards Won: