Overview
The Hyper Local Weather and Prognostics iOS Application is a student-led design effort to construct a software application that can project weather data from a local radar station that is connected with the iOS device. With this connectivity the iOS device would then overlay the map mode with weather information in the corresponding regions.

Objectives
The goal of the project was to research design concepts and methods while documenting our progress such that Raytheon could use our final source code or engineering notes to potentially learn ideas or rather new iOS techniques from students who’ve learned it more recently.

Approach
- Establish communication with Raytheon sponsors and discuss project objectives.
- Receive and review previous team’s source code and project report.
- Begin design process, evaluate previous code vs. desired coding framework.
- Research hardware topics for video encoding and connectivity between PC and iOS device.
- Receive and research netcdf file type for radar weather information.
- Search for API libraries that will allow integration of netcdf files and iOS device functionality.
- Software testing on team test device to prototype UI and caching functionality.
- Still more work left to do on weather-data overlay and weather-data streaming from simulated radar base-station to iOS device.

Outcomes
The overall outcome of this project is an iOS software application:
- The UI framework is space efficient and avoids using storyboards.
- Documentation of progress and reports to detail our design process.
- This project can be continued by another project team that can focus on the hardware-software communication and interaction.
- The project shows the benefits and shortfalls of a student-led design process: anywhere from experienced students programming in Xcode or inexperienced students in the role of project manager.