

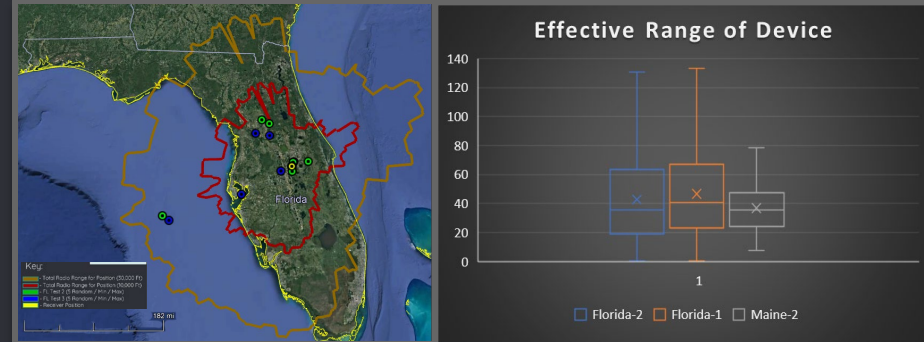
# The Design and Implementation of a Portable Aircraft Signal Processor

## Engineering Problem and Objective

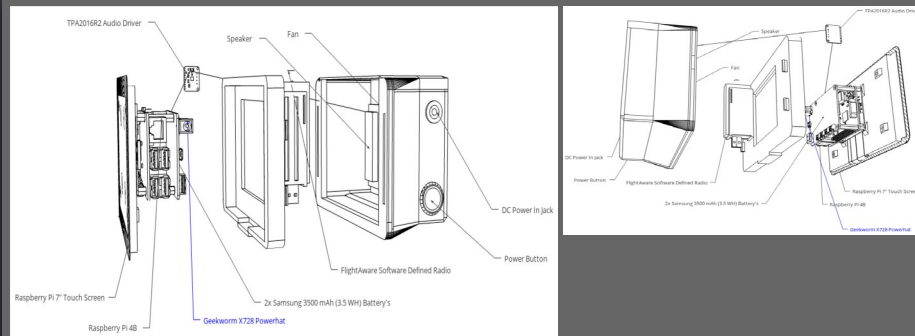
**Problem:** There is not an inexpensive, widely available product on the market that allows portable reception of aircraft ADS-B signals without an internet connection or direct connection to power via an outlet.

**Objective:** To design, produce, and program a portable device that can receive ADS-B signals from aircraft, process the data, and display it on a map all without being plugged in and without an internet connection.

## Data Analysis and Results



## Project Design



## Interpretation and Conclusion

### Interpretation:

Analysis of performance and data of the device shows consistent performance between 20 and 60 miles of the receiver regardless of elevation of both aircraft and base station.

**Conclusion:** In its current form, the device is a reliable, portable unit with consistent performance in the general vicinity around the receiver with its basic antenna.