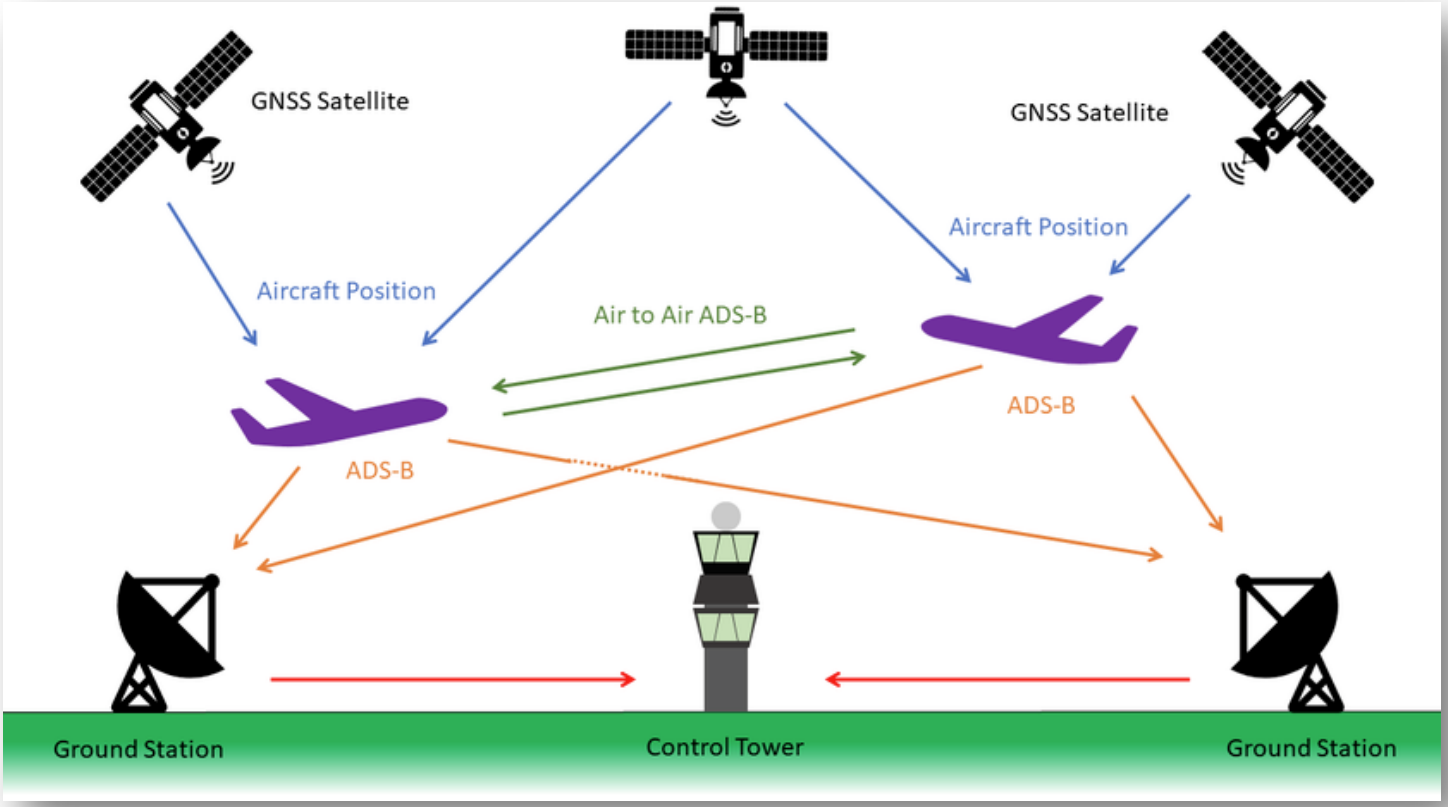
Automatic Dependent Surveillance–Broadcast (ADS-B)

Introduction:

https://en.wikipedia.org/wiki/Automatic_Dependent_Surveillance%E2%80%93Broadcast

https://www.youtube.com/watch?v=7K1xFb1REHU



Build Your Own ADS-B Receiver:

https://www.flightaware.com/adsb/piaware/build

https://www.flightradar24.com/build-your-own

Plug and Play ADS-B Receivers:

https://flightaware.store/products/1090mhz-piaware-ads-b-kit?variant=44932648403121

https://flightaware.store/products/flightfeeder-pro-ads-b-flight-tracker-1090-mhz-piaware

Common ADS-B Data Aggregator Websites:

- FlightAware *
- FlightRadar24 *(best mobile app)
- RadarBox *
- Planefinder *
- OpenSky Network
- ADSB.fi
- Airplanes.live
- ADSBExchange
- PlanePlotter **
- Virtual Radar Server **

  * commercial sites

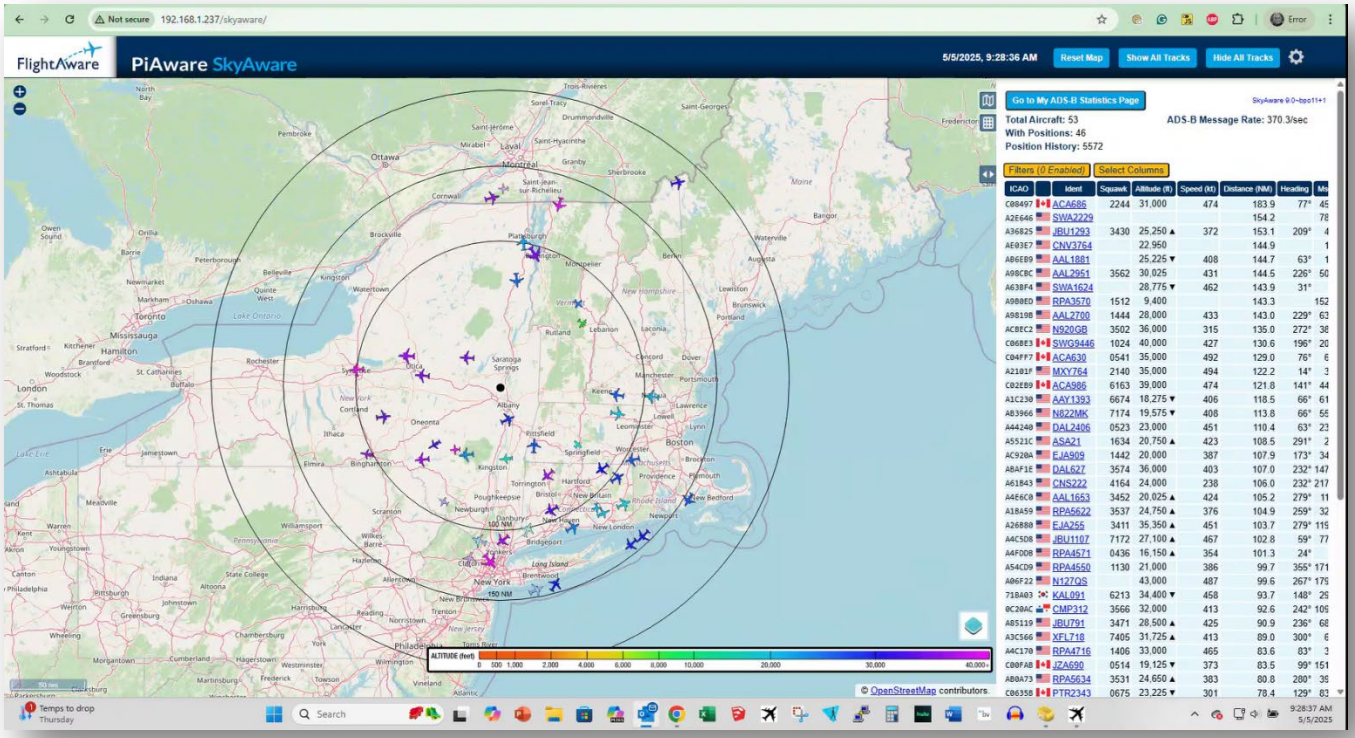
  ** advanced aviation enthusiasts

My Station Statistics:

https://www.flightaware.com/adsb/stats/user/vannossc

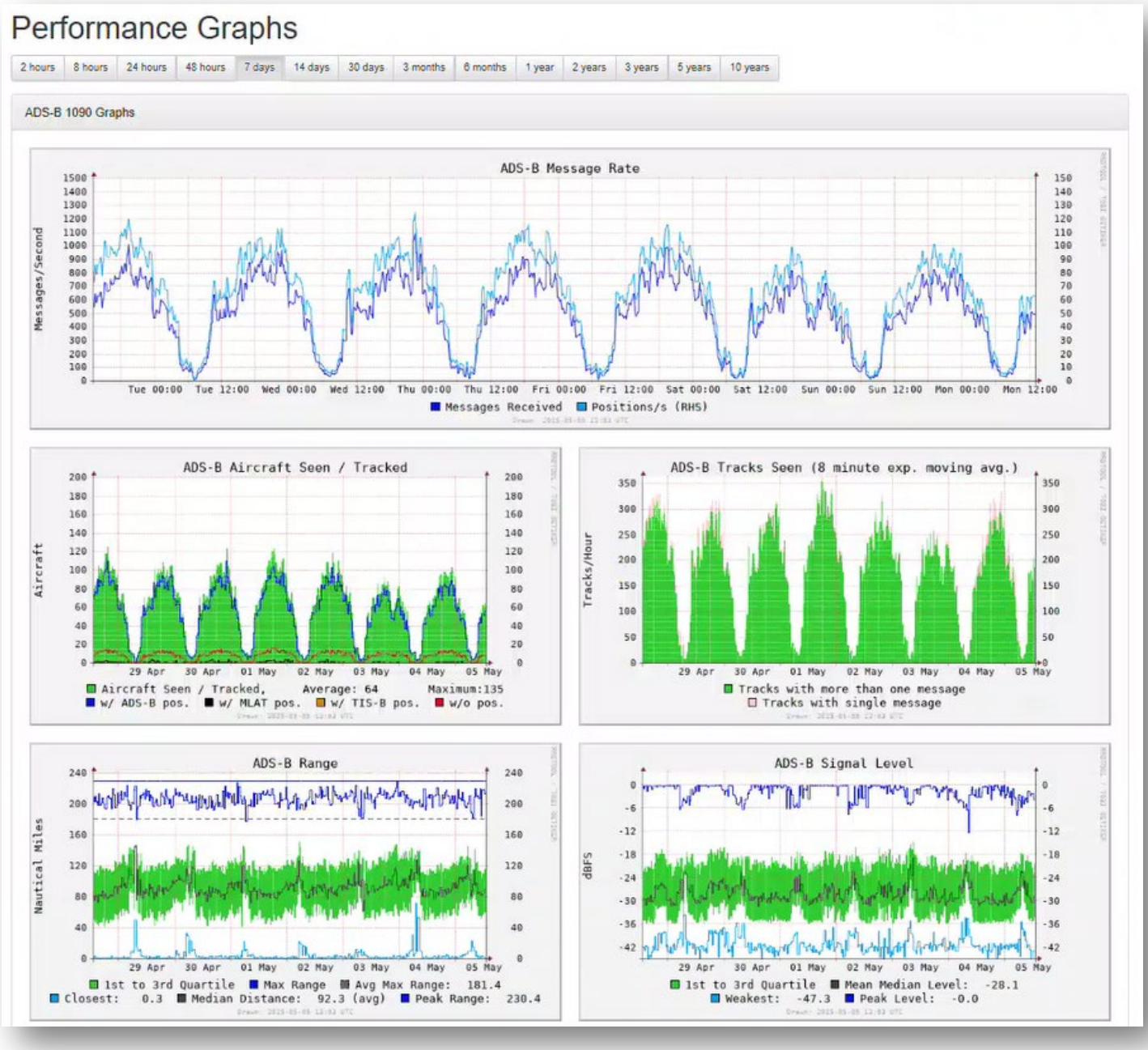
Raw ADS-B Data:

This map is displaying the decoded ADS-B data directly from the receiver on the roof (via a web server built into the decoding software bundle). FlightAware is shown in this case but almost all data aggregators have a similar functionality to see your local data being decoded live.



Station Dashboarding/Statistics:

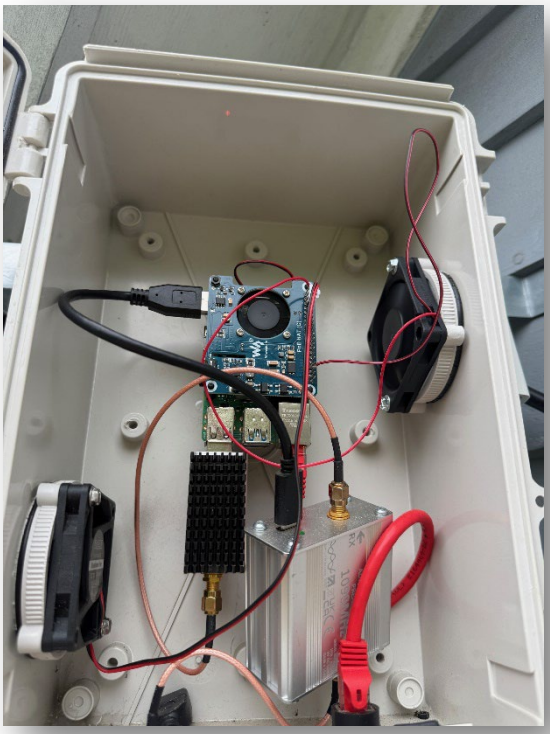
A very savvy enthusiast has developed some dashboarding software that can be used to log data and tune your station's settings. These graphs can be monitored after a change is made to the software or hardware to determine if that change is optimizing aircraft and position counts.



N2ZYI Station Hardware

- Antenna: DPD Productions 1090 MHz
- Coax: LMR-240 (N Connectors)
- Mast: RCA 4.5ft x 2
- Mount: 18” Stand-Off

- Weatherproof Enclosure, Dual Vents
- Cable Bulkhead Mounts (N to N, RJ-45)
- 50 ft Outdoor Cat 6 LAN Cable (Power Over Ethernet – POE)



- Raspberry Pi 4: 8GB
- POE Top Hat (5V USB to power the preamp)
- Airspy Mini SDR
- Uputronics 1090 MHz Filtered Preamp
- 5V Fans (in and out)
- Screened Vents
- SDR Heatsink