

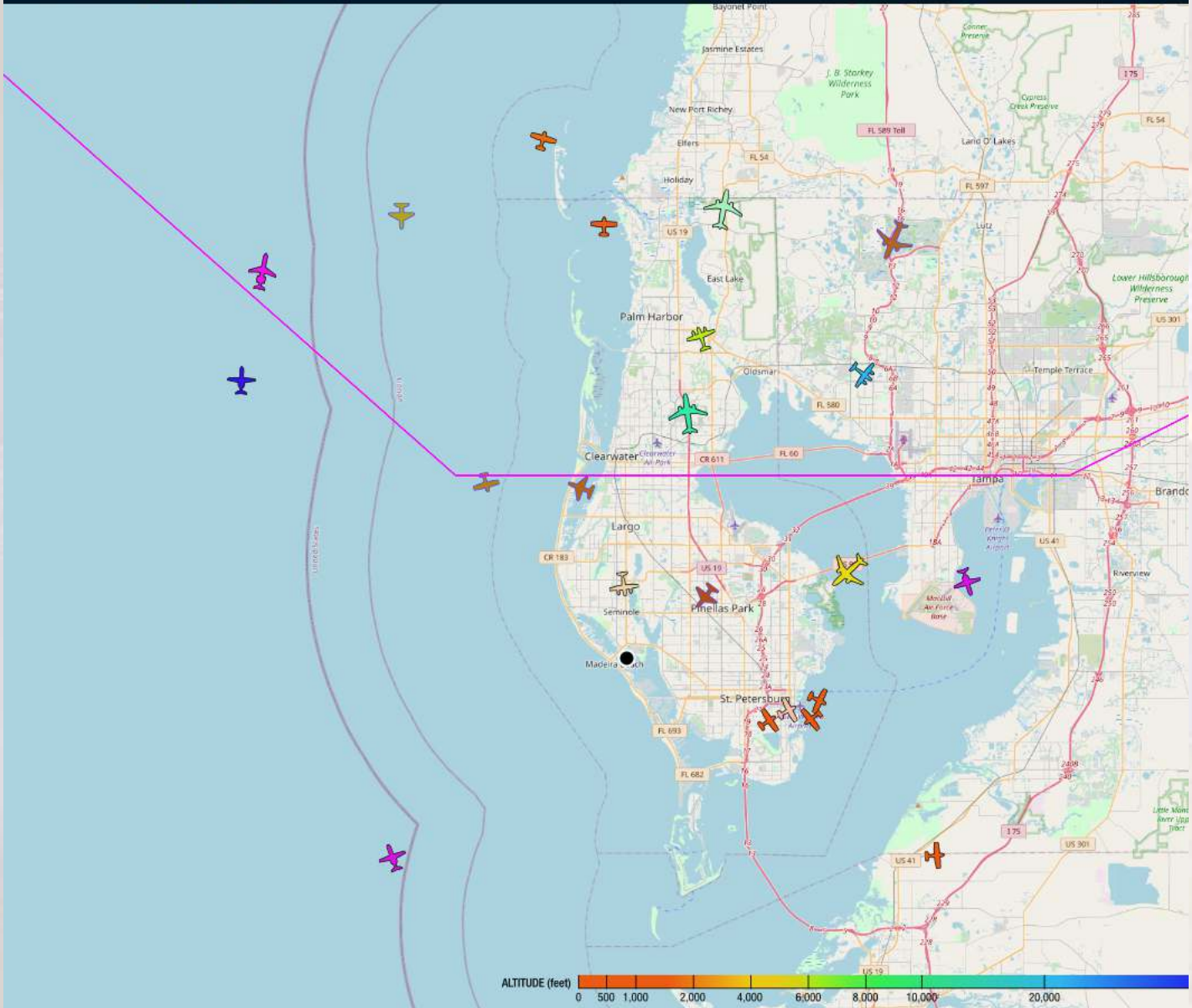
The background features a large, semi-transparent globe with a grid of latitude and longitude lines. The globe is centered and slightly tilted. The overall color palette is light blue and white, with a yellow vertical bar on the right side. There are also some faint, glowing lines and dots scattered across the background, suggesting a digital or network theme.

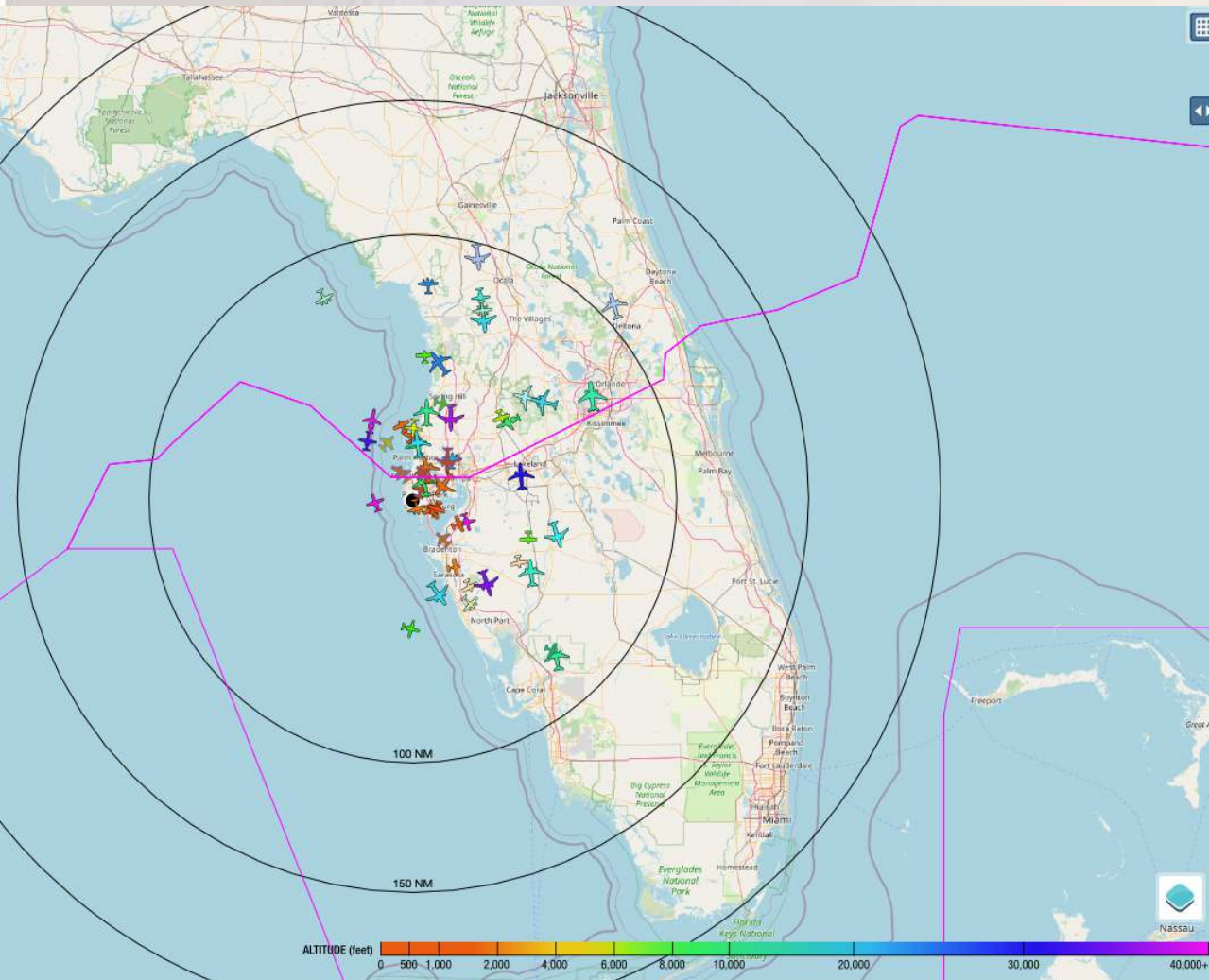
ADS-B Information

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What is ADS-B?

- **A**utomatic **d**ependent **s**urveillance-**b**roadcast
- Data transmitted from most airplanes
 - Position, speed, heading, id, etc.
- Shows planes and their tracks on local website hosted by your Raspberry Pi
- No Internet required
 - Feed data to FlightAware and receive a free Enterprise Account





With Positions: 56

History: 3935 positions

Filter by Altitude: ft to ft

Select Columns

	Ident	Aircraft type	Squawk	Altitude (ft)	Speed (kt)	Distance (NM)	Heading	Age	Data Source
	GAJ513	C56X		40,000		154.8		48	ADS-B
	N193PP	C25A		30,900 ▼	372	117.8	343°	0	ADS-B
	DAL1399	B752			468	116.7	340°	53	ADS-B
	JBU28	A320		22,675 ▲	419	105.3	343°	50	ADS-B
	AAL1380	A321	6032	25,175 ▼	418	94.6	174°	8	ADS-B
	N414WE	C414	3256	10,925	189	83.7	151°	23	ADS-B
	N44KA	BE20	2306	22,000	267	80.8	357°	0	ADS-B
	N282WN	B737	6676	12,525 ▲	299	80.7	349°	0	ADS-B
	N93XP	BE40		16,300 ▼	369	80.6	173°	0	ADS-B
	DAL1998	B763		13,450 ▲	366	78.2	354°	3	ADS-B
	N1400H	C172		9,450 ▲	96	77.0	118°	1	MLAT
	N995TX	BE20	6024	11,000	269	76.9	173°	1	ADS-B
	N709FR	A321		18,150 ▼	443	73.5	174°	2	ADS-B
	SWA6569	B737	1006	18,125 ▲	382	61.8	284°	1	ADS-B
	DAL2074	B738	1077	18,275 ▲	411	58.1	283°	36	ADS-B
	AAL2206	A320		17,325 ▼	394	56.2	162°	2	ADS-B
	N7JZ	C210	1200	7,200 ▲	137	54.3	357°	0	ADS-B
	AAL2538	A321		23,125 ▲	435	52.8	325°	0	ADS-B
	AAJ2486	A320	6061	15,750 ▲	372	52.7	354°	0	ADS-B
	N219JL	LJ45	7437	8,675 ▼	364	48.7	105°	5	ADS-B
	N365AV	CL30		11,100 ▼	303	46.4	244°	3	ADS-B
	N313E		1200	3,375	121	46.1	170°	23	ADS-B
	N9205X	P28A	4736	7,400	104	45.9	179°	0	ADS-B
	N873L	BE36	0747	6,025 ▼	154	45.9	159°	0	ADS-B
	N414AR	C414		6,250 ▲	143	44.2	135°	36	ADS-B
	N605FT	P28A		3,400 ▲	84	44.0	132°	3	ADS-B
	AAJ2032	A320		27,875 ▲	446	42.6	5°	32	ADS-B
	N361FR	A20N		29,600 ▲	448	42.0	355°	3	ADS-B
	NKS518	A20N	4057	34,375 ▼	467	41.9	162°	3	ADS-B
	N121LD	C182	0071	3,425	120	38.7	153°	9	ADS-B
				6,900 ▼	252	38.4	104°	0	MLAT
	UAL2167	B738	1354	18,675 ▼	386	36.6	145°	0	ADS-B
	UAL1855	A320	1325	37,000	482	34.5	179°	0	ADS-B
	LXJ534	CL30	3353	43,000	430	33.6	11°	0	ADS-B
	AAJ931	A319	5740	12,700 ▲	407	33.6	360°	3	ADS-B
	N316ND		0164	2,525 ▲	80	29.5	78°	0	ADS-B
	N17705	C172	1800	3,200	140	28.0	230°	0	ADS-B

Build you own

- What do you need?
 - Raspberry Pi
 - ADS-B receiver
 - Antenna
- Local System

One way to do it

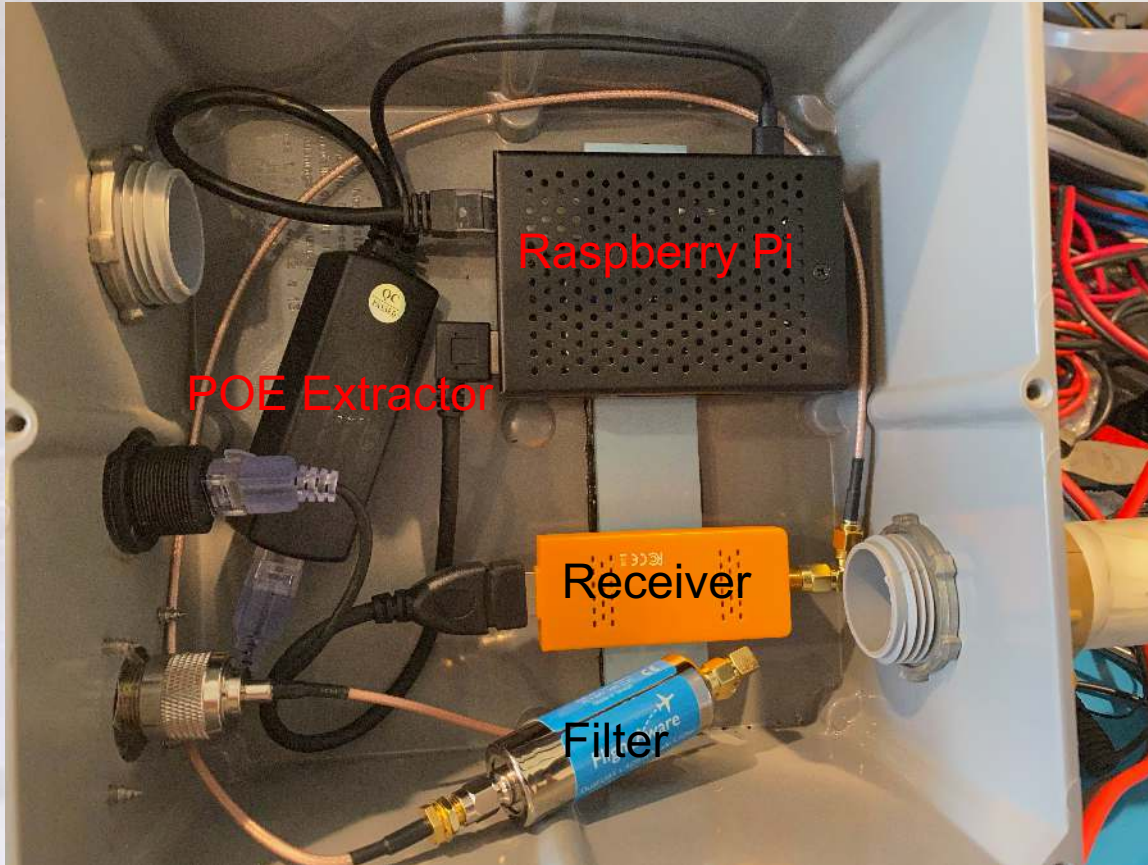
- Raspberry Pi with PiAware image
 - From FlightAware
 - <https://flightaware.com/adsb/piaware/build>
- Receiver
 - FlightAware USB Dongle
 - European TV SDR Receiver
- Antenna
 - Small mag mount or larger FlightAware antenna

How about a list?

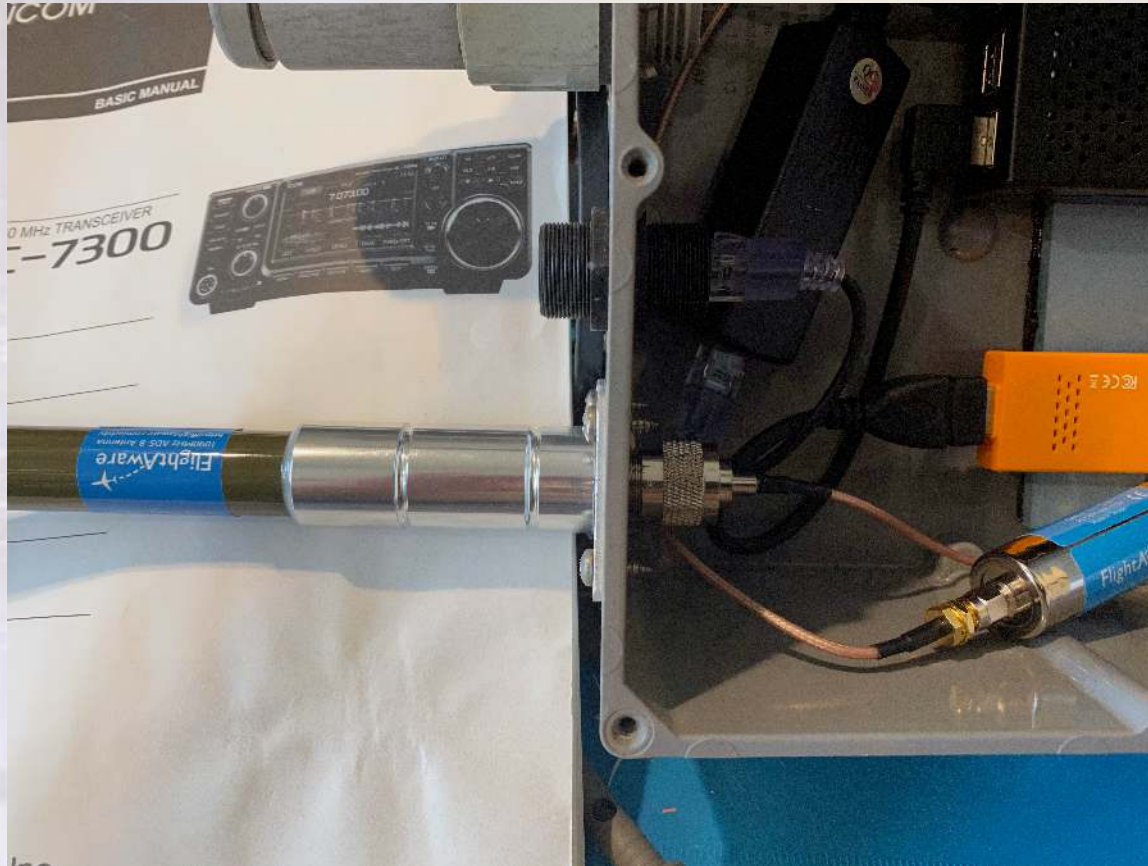
- Amazon Shopping List
 - https://www.amazon.com/hz/wishlist/ls/1UE5YLXS0VPPR?ref=wl_share

Tower Mounted System

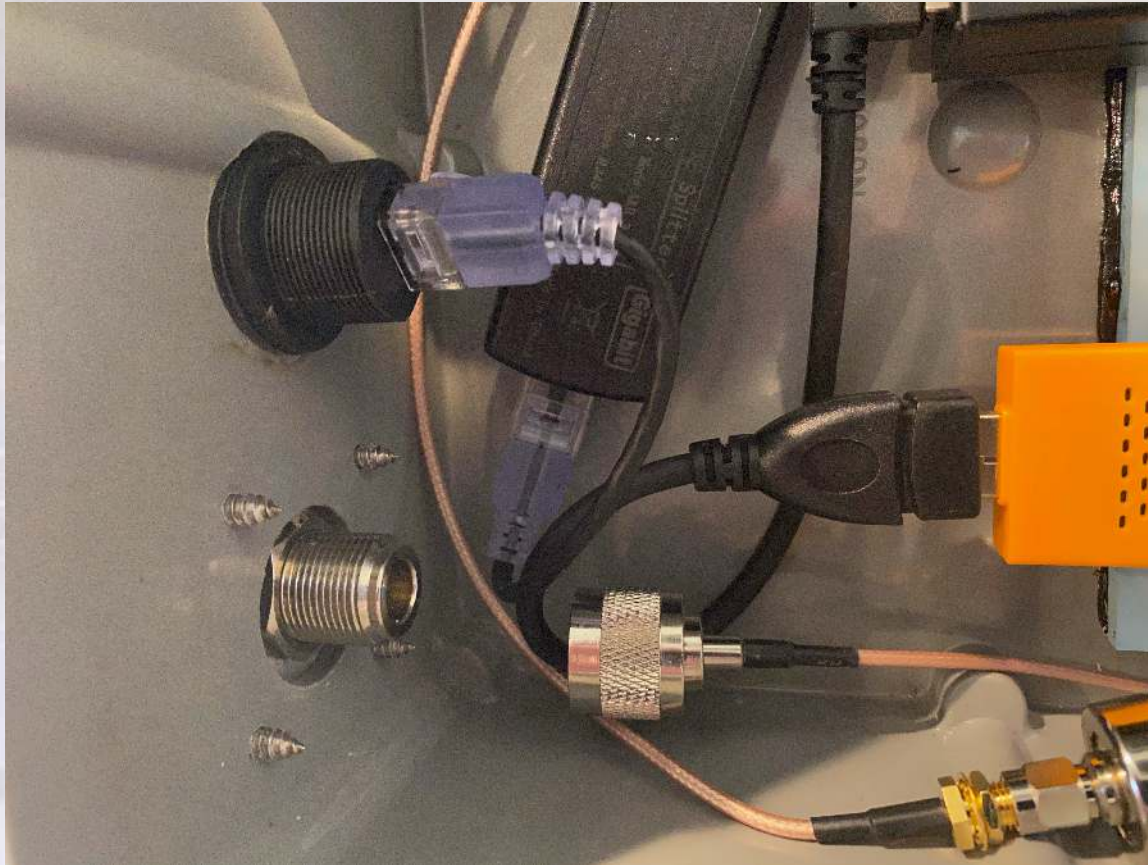
- Minimize coax loss
 - 50 feet LMR400 @ 1090 Mhz = 2.1 dB loss
 - Trade complexity for gain
- NEMA 4 box with Pi, receiver, antenna attached
- All fed by single Ethernet cable that provides power via POE



Internals



Antenna mounted on box



Bottom of antenna (N connector)

Waterproof Ethernet bulkhead connector



Outside of Ethernet connector

Questions

