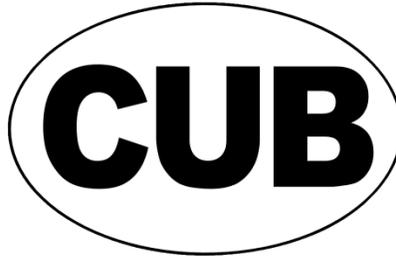


**Richland County Airport Commission
Jim Hamilton – LB Owens Airport (CUB)
Richland County Department of Public Works
Columbia, South Carolina**



**Meeting Minutes
March 21, 2022 – 12:00 Noon**

Commission Members in attendance

John Parrish, Chairman
Mike Kelly, Esquire, Vice Chairman
Prentiss McLaurin, Secretary
Joel McCreary, AIA, Treasurer
Lynn Hutto
Kaela Bailey
Michael Medsker
Lindsey Ott

Richland County Staff in attendance

Allison Terracio, Richland County Liaison
Michael Maloney, PE, Director of Public Works
Patrick Bresnahan, Director of Geographic Information Systems
Chris Eversmann, PE, AAE, Airport General Manager
Ebony Tyler, Administrative Coordinator

Visitors in attendance

Joseph Barkevich, AICP, WK Dickson
Andy Busbee, PE, Michael Baker
Jim Herpst, EAA-242
Jack Mayfield, GMC
Michael McGovern, BPS
Lee Thomas, Eagle Aviation
Melissa Sprouse Browne, Porsche Club of America
Phillip Strobe, PE, ADC
Rock Webb, Porsche Club of America

Encl: (1) Airport General Manager's Report PowerPoint Presentation

Richland County Airport Commission
Jim Hamilton – LB Owens Airport (CUB)
Richland County Department of Public Works
Columbia, South Carolina

(2) Richland County Geographic Information System (GIS) ADS-B Mapping

Call to Order and Welcome – **Chairman Parrish** called the meeting to order at 12:01 p.m. and announced a quorum in attendance. He then welcomed everyone.

Commissioner Kelly delivered the invocation.

Report of Items for Executive Session – **Chairman Parrish** reported that there were items pertaining to future services contracts that required an Executive Session.

Approval of Agenda – **Chairman Parrish** presented the agenda as distributed.

Commissioner Medsker made a motion to approve the agenda as presented.

Commissioner Bailey seconded the motion, and all voted for approval.

Approval of Minutes – **Chairman Parrish** presented the minutes of January 10, 2022 Airport Commission meeting for approval. **Commissioner Kelly** made a motion to approve the minutes as presented. **Commissioner Bailey** seconded the motion, and all voted for approval.

Chairman’s Report / Executive Committee Report – **Chairman Parrish** reported on the following:

- Owens Field Park – There are no updates pertaining to renegotiation of the Owens Field Park land lease.
- Breakfast Club – The South Carolina Breakfast Club recently met at the Airport and was hosted by EAA-242 Chapter. All are glad for the opportunity to resume in-person gatherings (as well as raising money for the Chapter).
- Vacant Commission position – There is a Neighborhood Representative vacancy on the Airport Commission. Applications are being received and interviews will commence soon.

Operations & Facilities Committee – **Commissioner McCreary** reported on the following:

- Document review – A list of guiding documents is being compiled and a plan of action developed. Among those documents is the County Airport Ordinance (Chapter 3). Its review will include the number of Airport neighborhood representatives and the geographic limits from which they may be drawn.
- **Commissioner McCreary** deferred to the Airport General Manager to provide a report on other Operational and Facilities matters.

Promotional Committee – **Commissioner Medsker** reported on the following:

- Strategic vision and strategic planning.

Richland County Airport Commission
Jim Hamilton – LB Owens Airport (CUB)
Richland County Department of Public Works
Columbia, South Carolina

- Dr Carolyn Donelan of The Challenger Learning Center is seeking a statement of support for student group tours of the Airport and EAA for an aerospace program under development.
- There is a wonderful aviation exhibit at the SC State Museum, Edventure forum.
- A Mid-Air Collision Avoidance (MACA) session to be presented by the SC Air National Guard to raise private pilot awareness of military fighter jet traffic in the area while temporarily based out of CAE.

Airport General Manager's Report – **Dr Patrick Bresnahan** provided a presentation on Richland County GIS's support of the Airport over several years on a variety of projects. The most recent (and most ambitious) brings together GIS mapping technology and Automatic Dependent Surveillance-Broadcast (ADS-B) transponder data. Copies of **Dr Bresnahan's** and of **Mr Eversmann's** PowerPoint presentation are contained in the enclosures.

County Liaison's Report – There was no report provided.

Unfinished Business – There was no unfinished business.

Executive Session – An executive session was conducted to discuss future service contract matters. The executive session commenced at 1:09 p.m. and finished at 1:28 p.m. No business was transacted nor votes taken while in executive session.

Adjournment – The meeting adjourned at 1:29 p.m.

Next Meeting – The next meeting of the Airport Commission will occur on Monday, May 9, 2022 at 12:00 Noon.

Airport General Manager's Report

Richland County Airport
Commission
Meeting

March 21, 2022



Agenda



- Meetings, Events, and Visits
- AIP / Project Updates
- Eagle Aviation Update
- Budget & Finance
- Aircraft Complaints
- Other items
- Questions?

Meetings, Events, and Visits

Meetings:

- Jan 11 – Airport Informational Signage
- Jan 14 – Rwy Anti-icing agent application
- Jan 19 – Rwy Anti-icing agent application
- Feb 14 – WK Dickson
- Feb 14 – RC GIS
- Feb 16 – 18 – SCAA Conference
- Feb 22 – Document Review
- Feb 25 – Consultant site visit (Holt)
- Feb 28 – FY23 Budget
- Mar 1 – Airport Informational Signage
- Mar 2 – DPW / RDM
- Mar 3 – Pre-proposal Conf (Zoom)
- Mar 4 – Porsche Car Club CWH event
- Mar 8 – Turf mowing
- Mar 9 – Site recon NaturChem
- Mar 9 – Consultant site visit (ADC)
- Mar 9 – Consultant site visit (Michael Baker)
- Mar 9 – Consultant site visit (WK Dickson)
- Mar 14 – 16 – Hershey Conference



Meetings, Events, and Visits



Children group visits:
→ Feb 25

Adult group visits:
→ None



AIP / Project Updates

→ Various Site / Civil Airport Improvements (Project 2)



AIP / Project Updates

Various Airport Site / Civil Improvements (Project 2)

- 100% Federally Funded (CARES Act Provision)
- Scope – Taxiway A5 rehabilitation / Retaining wall extension / Infield drainage structure rehabilitation
- Final completion / project close out.

Eagle Aviation Update

- Fuel Sales
- Ramp Fees collected
- Hangar occupancy



Budget & Finance



Budget & Finance

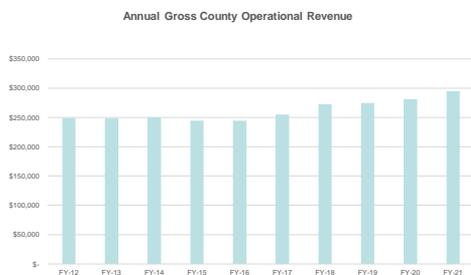


- Jan Operational Revenue
\$24,688.81 (Jan '21 - \$24,226.08)
- Feb Operational Revenue –
\$24,677.32 (Feb '21 - \$24,370.72)
- Feb Operating Budget Status:
 - Personnel \$ 83,022 55%
 - Operations \$152,620 49%
 - Capital \$ 11,213 1%
 - Total \$246,855 43%

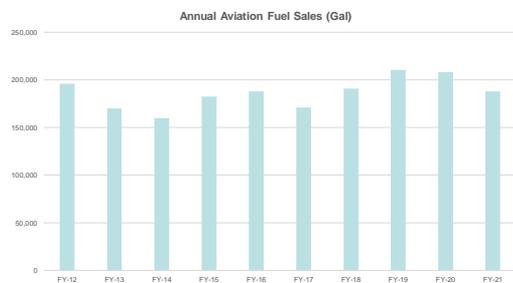
County Revenue / Activity Trends

Line #	FY	Gross County Operational Revenue (\$)	AvGas Volume (Gal)	JetA Volume (Gal)	Total
1	FY-12	\$ 248,995	64,911	130,931	195,842
2	FY-13	\$ 248,302	53,701	116,291	169,992
3	FY-14	\$ 249,676	55,742	104,096	159,838
4	FY-15	\$ 244,426	53,967	128,519	182,486
5	FY-16	\$ 244,628	58,087	129,818	187,905
6	FY-17	\$ 254,718	58,932	111,940	170,872
7	FY-18	\$ 272,160	62,596	128,301	190,897
8	FY-19	\$ 274,629	42,763	167,511	210,274
9	FY-20	\$ 281,038	49,447	158,762	208,209
10	FY-21	\$ 294,788	46,097	141,856	187,953
		\$ 2,613,360	546,243	1,318,025	1,864,268

County Revenue / Activity Trends



County Revenue / Activity Trends



Aircraft Complaints

Aircraft complaints

- There were no (00) aircraft complaints during the period of Jan 1 – Feb 28, 2022.
- There were no (00) identification / Information letters sent.
- There were no (00) sources for these aircraft complaints.



Other Items

- Informational Signage, Phase 1
- Fuel Farm Repairs – Complete
- Fuel Farm Perimeter Hardening Project – ACIP
- Planning & Engineering Consultant RFQ
- Long-term project – Guiding Document comprehensive review
- Conference Room A/V system upgrade
- Lobby Kiosk
- Bi-partisan Infrastructure Law (BIL) distribution – \$295,000 / year (in addition to Non-Primary entitlement) / ACIP
- MACA Lunch (Mar 28th)
- Car Club Event at Curtiss-Wright Hangar (Apr 24th)
- Warbirds at CUB (Sep 24th)
- Richland One, MSAP grant, K – 12 Aerospace Magnet Program
- SCAA Board of Directors
- Runway excursion / stranded aircraft
- 12,000 Gallon, above ground, self-service tank, turnkey cost (2018) - \$411,888





SCHAF / B-25 Restoration

The South Carolina Historic Aviation Foundation (SCHAF) was founded in 2008 for the purpose of preserving "this State's valuable contributions to aviation - from its very beginnings." Their landmark project is the restoration of a B-25C that was recovered after a crash into Lake Marion on D-Day during a training flight and spent nearly 40-years underwater. Their hangar is opened to the general public for visits on a monthly basis.







Guiding Document Comprehensive Review

- Task – To complete a thorough review and update to significant Airport Guiding Documents by stakeholders in order to ensure currency, accuracy, completeness, and correctness.
- Sponsor (Owner) Stakeholders:
 - Richland County Council
 - Richland County Airport Commission
 - Richland County Government Staff (Administration / Legal / Public Works / et al)
 - Jim Hamilton – LB Owens Airport Staff
- Other (Consultation) Stakeholders:
 - Regulators (FAA / SCAC)
 - FBO
 - SASO
 - EAA-242

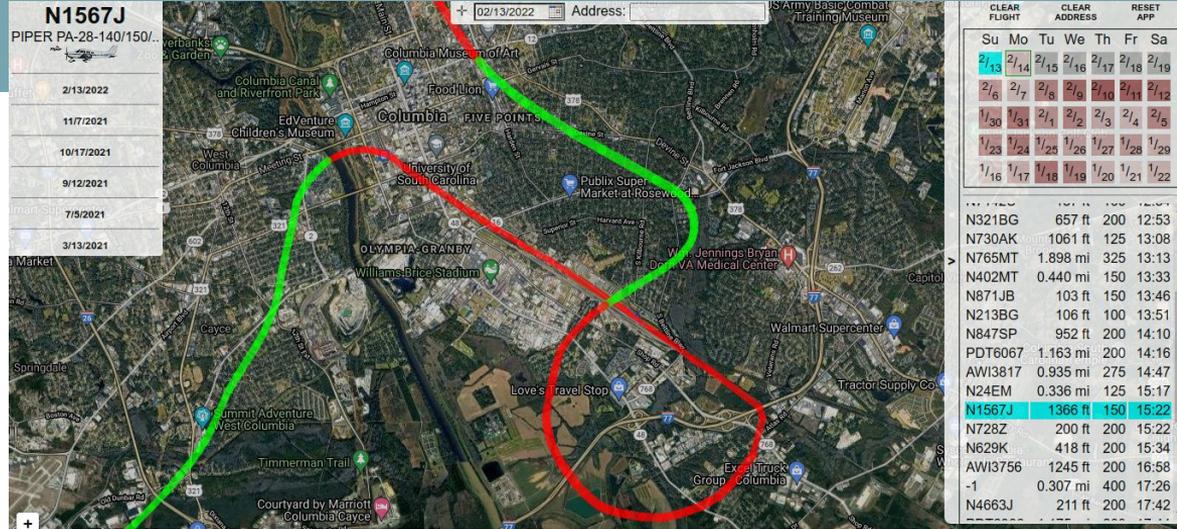
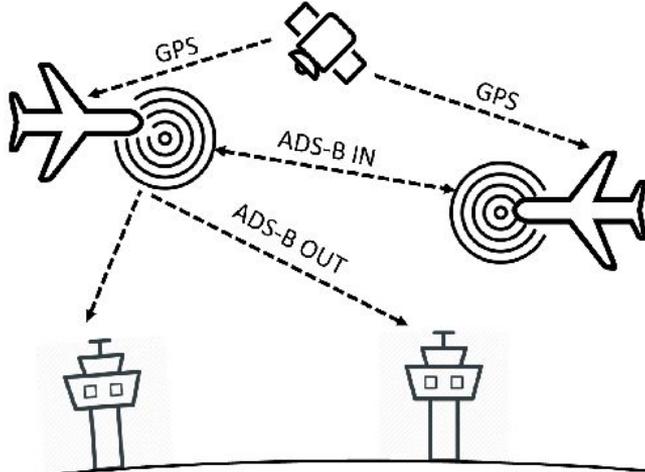
Guiding Document Comprehensive Review

- Guiding Documents (Primary / Upper Tier):
 - Richland County Code of Ordinances, Chapter 3 (*)
 - Richland County Code of Ordinances, Chapter 26, Section 104 (Airport Overlay District)
 - Airport Operations Manual (*)
 - Airport Minimum Standards (*)
 - FBO Services Agreement / Lease (*)
 - SASO Services Agreement / Lease (*)
 - FBO Services Documents (*)
 - ESF 22 – Air Operations Plan
 - Annex H – Aircraft Accident Annex
- (*) – Directly related to FBO Services procurement.
- Guiding Documents (Secondary / Lower Tier):
 - Hangar Lease Agreement
 - Tie Down Lease Agreement
 - EAA Club House Lease Agreement
 - Terminal Office Lease Agreement
 - Hangar Storage Area Lease Agreement

Questions?



Richland County GIS ADS-B Mapping



Richland County GIS

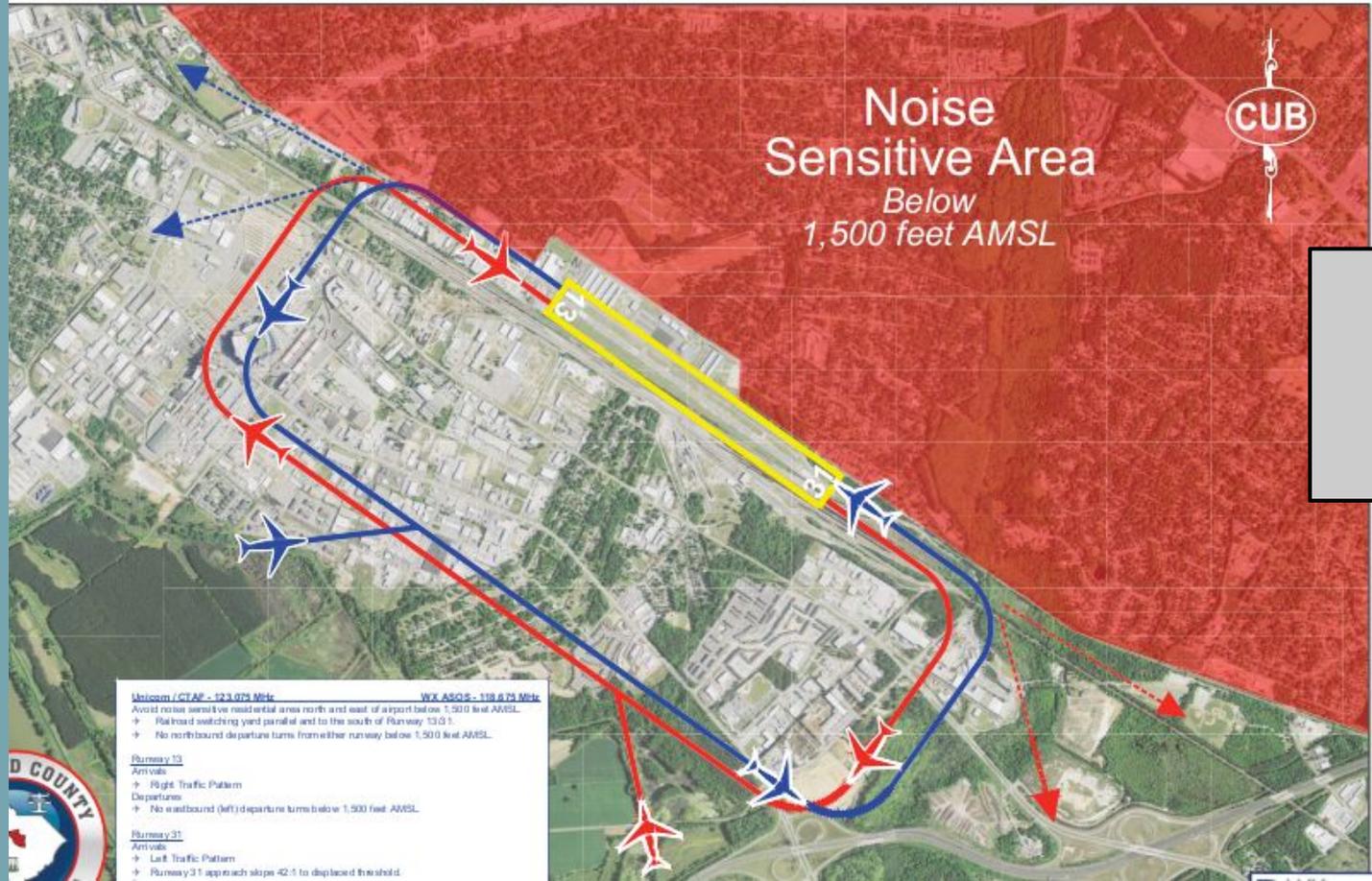
Patrick Bresnahan, Ph.D.

ADS-B: Automatic Dependent Surveillance-Broadcast



JIM HAMILTON - L.B. OWENS AIRPORT (CUB)

Noise Abatement / Aircraft Traffic Pattern Information



Runway 13 - Right Traffic Pattern To Avoid Noise Abatement Area

Wilson / CLAF - 12.075 Mile **WX ASOS - 119.675 Mhz**
 Avoid noise sensitive residential areas north and east of airport below 1,500 feet AMSL.
 → Railroad switching yard parallel and to the south of Runway 13/31.
 → No northbound departure turns from either runway below 1,500 feet AMSL.

Runway 13
 Arrivals
 → Right Traffic Pattern
 Departures
 → No westbound (left) departure turns below 1,500 feet AMSL.

Runway 31
 Arrivals
 → Left Traffic Pattern
 → Runway 31 approach slope 42:1 to displaced threshold.



The Issue: Efficient and effective identification of aircraft (typical examples)

Dr Bresnahan,
Good morning, sir.

Would you please confirm the presence of Helicopter
N407RC vic South Maple on the morning of February 2, 2022?

We rec'd a complaint about same.

Good morning, sir.

Would appreciate your assistance with the subject:

200 South Saluda
Sunday, April 25th
0957

Twin engine, propeller

Apparently flying extremely low.

The Solution: Develop a system to record and map aircraft positions meeting the specific criteria of KCUB management.

- Consider the logistics required
 - > Map an object moving/moved in 3D space
 - > Data, comms, server, database, application development/UI
 - > FAA ADS-B mandate (Jan. 1, 2020) makes this possible



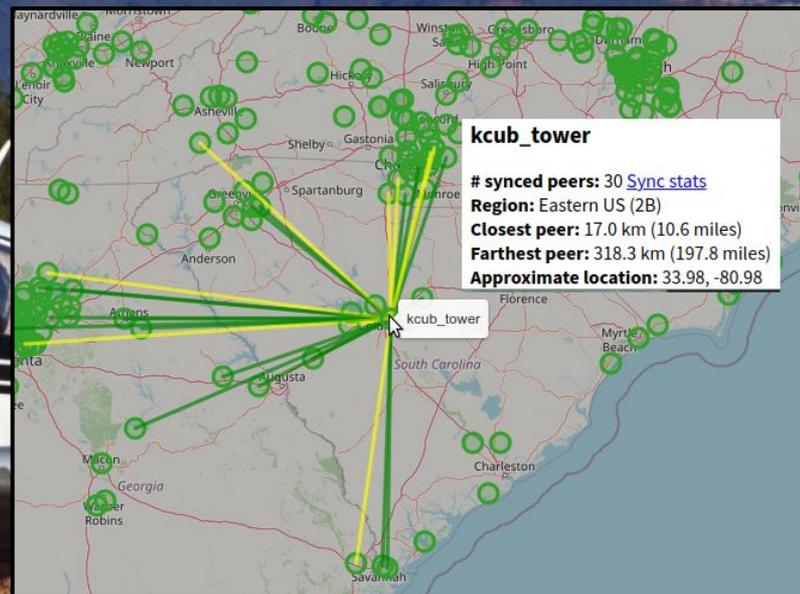
Technology Partnership

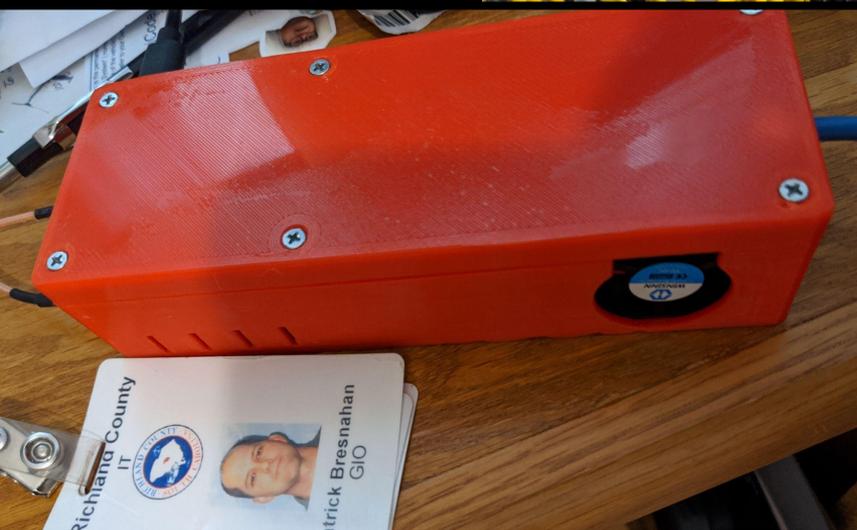
(a TRUE partnership...no \$!)



ADS-B Exchange

World's largest source of unfiltered flight data

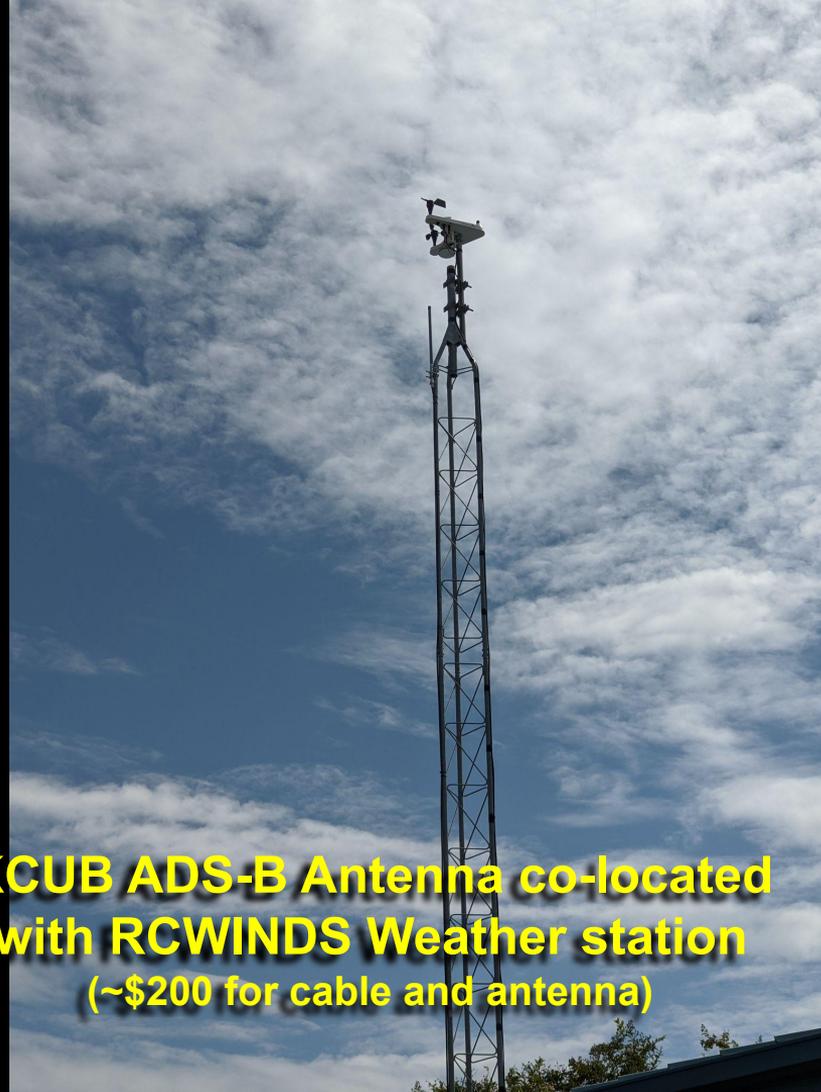
[Home](#)[Share your data](#)[ADSBX Radar View](#)[Data](#)[Forum](#)[Store](#)[About](#)[Donate](#)



**Raspberry Pi server with 1090 and 978 MHz
USB receivers (><18000AGL or MSL?)**



**KCUB ADS-B Antenna co-located
with RCWINDS Weather station
(~\$200 for cable and antenna)**



```
48 whiptail --backtitle "$BACKTITLETEXT" --title "$BACKTITLETEXT" --yesno "Thanks for choosing to share your data with ADS-B Exchange!\n\nADSExchange.com\n49\n- ADSBEXCHANGEUSERNAME=$(whiptail --backtitle "$BACKTITLETEXT" --title "Feeder MLAT Name" --nocancel --inputbox "\nPlease enter a unique name to be shown\n50 + ADSBEXCHANGEUSERNAME=$(whiptail --backtitle "$BACKTITLETEXT" --title "Feeder MLAT Name" --nocancel --inputbox "\nPlease enter a unique name to be shown\n51\n52 NOSPACENAME=$(echo -n -e "${ADSBEXCHANGEUSERNAME}" | tr -c '[a-zA-Z0-9]_\\-\n53\n- whiptail --backtitle "$BACKTITLETEXT" --title "$BACKTITLETEXT" \\  
- --msgbox "For MLAT the precise location of your antenna is required.\  
- \n\nA small error of 15m/45ft will cause issues with MLAT!\  
- \n\nTo get your location, use any online map service or this website: ht\n54 + if [[ "$NOSPACENAME" != 0 ]]; then\n55 +   whiptail --backtitle "$BACKTITLETEXT" --title "$BACKTITLETEXT" \  
56 +     --msgbox "For MLAT the precise location of your antenna is required.\  
57 +       \n\nA small error of 15m/45ft will cause issues with MLAT!\  
58 +       \n\nTo get your location, use any online map service or this website: https://www.mapcoordinates.net/en" 12 78 || abort\n59 + else\n60 +   whiptail --backtitle "$BACKTITLETEXT" --title "$BACKTITLETEXT" \  
61 +     --msgbox "MLAT DISABLED!\  
62 +       \n\nFor some local functions the approximate receiver location is still useful, it won't be sent to the server." 12 78 || abort\n63 + fi\n64\n65 #((-90 <= RECEIVERLATITUDE <= 90))\n66 LAT_OK=0\n\n@@ -71,7 +77,8 @@ until [ $LON_OK -eq 1 ]; do\n77     LON_OK=`awk -v LON="$RECEIVERLONGITUDE" 'BEGIN {printf (LON<180 && LON>-180 ? "1" : "0")}'`\n78 done\n79\n- until [[ $SALT =~ ^(-?[0-9]*)ft$ ]] || [[ $SALT =~ ^(-?[0-9]*)m$ ]]; do
```

Open Source Server and Application

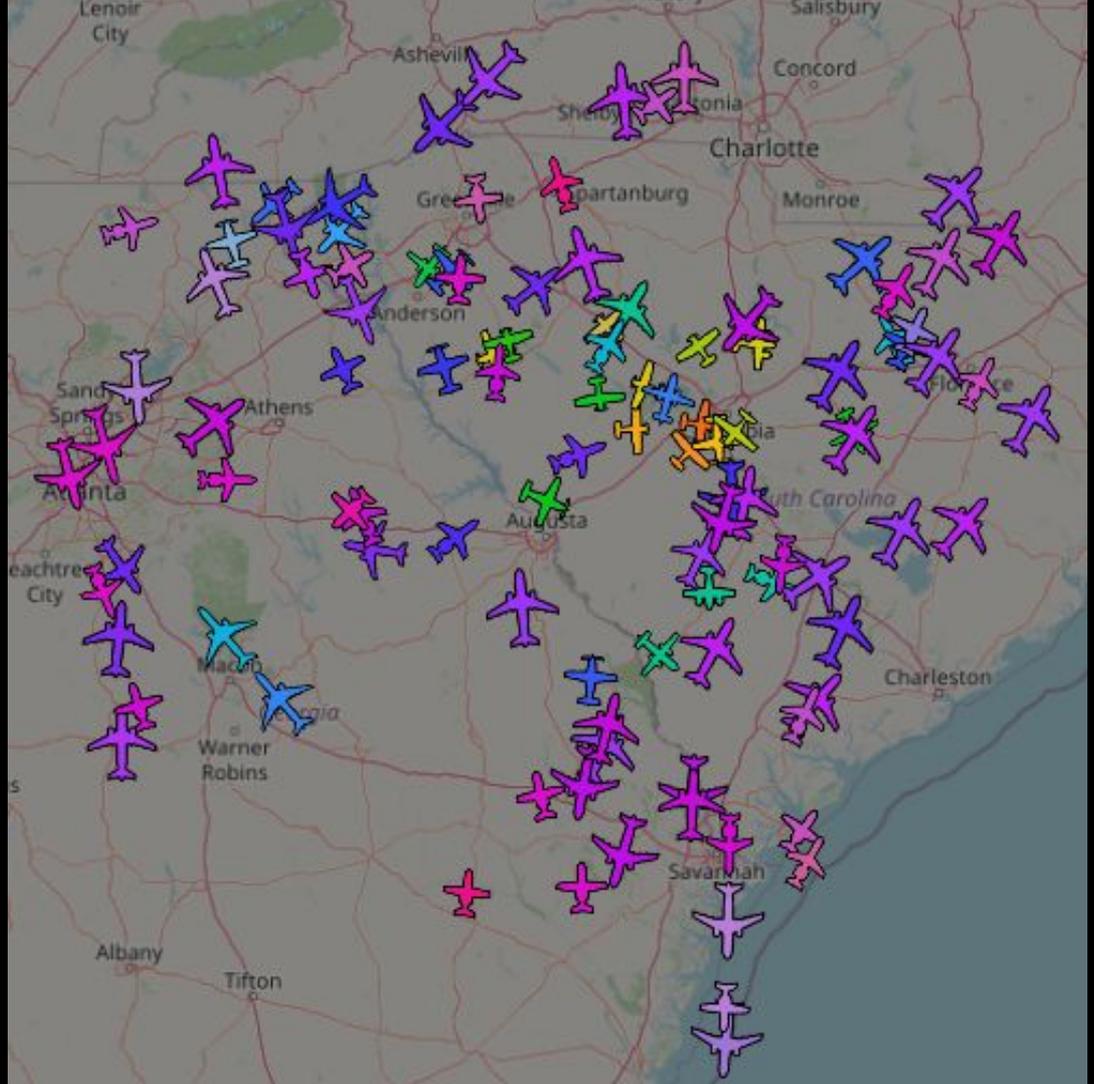
Requires: signal input from antenna, antenna geographic location, and internet access*.

***Mesh Network**

Extent of KCUB ADS-B Antenna Reception

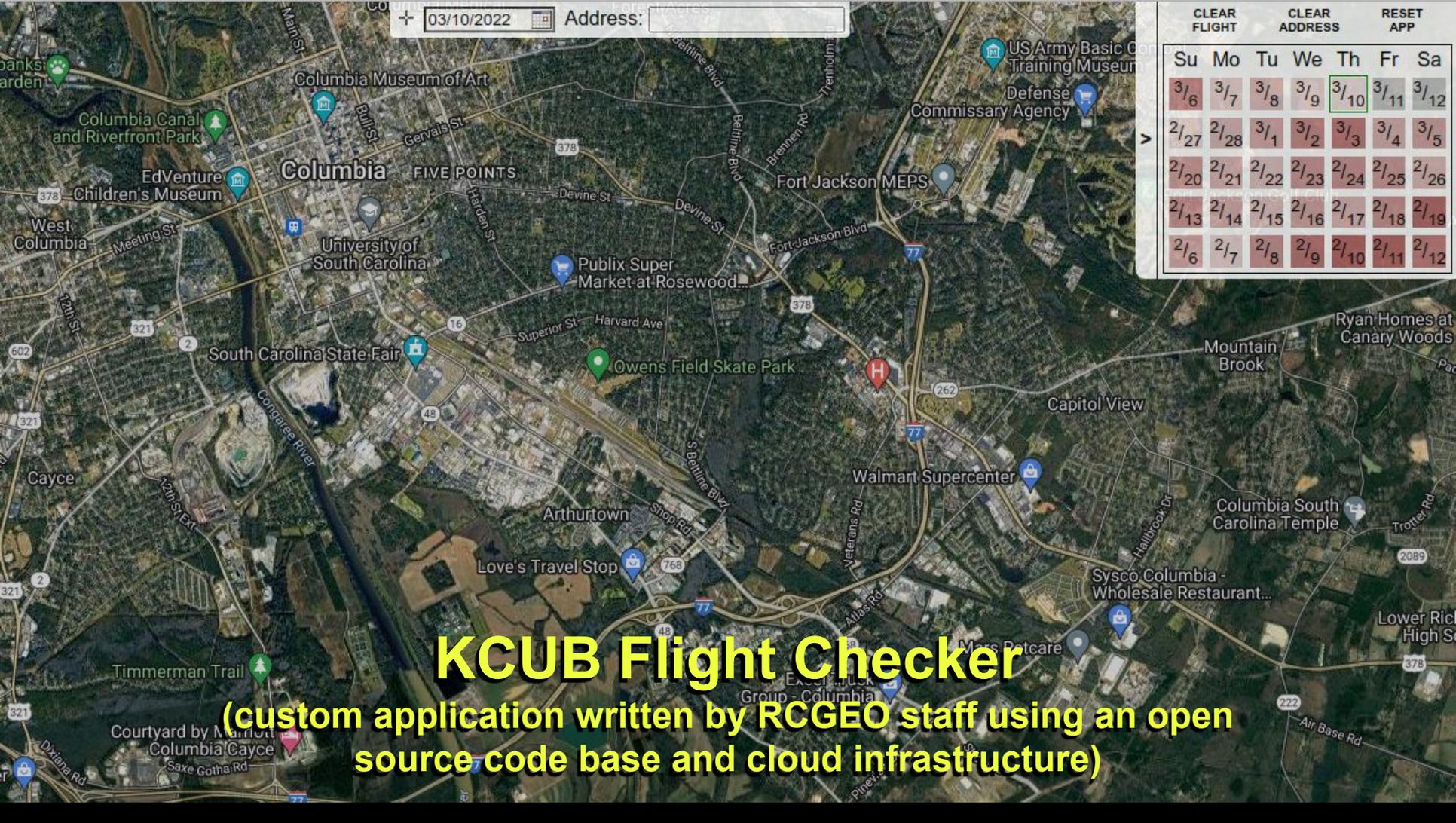
Near-ground coverage
decreases over distance
(~ 200 miles for higher altitudes,
warmer colors low/cooler colors high)

This is where the mesh
network comes in! To
provide and access
cooperative global
coverage.



03/10/2022 Address:

CLEAR FLIGHT	CLEAR ADDRESS						RESET APP
Su	Mo	Tu	We	Th	Fr	Sa	
3/6	3/7	3/8	3/9	3/10	3/11	3/12	
2/27	2/28	3/1	3/2	3/3	3/4	3/5	
2/20	2/21	2/22	2/23	2/24	2/25	2/26	
2/13	2/14	2/15	2/16	2/17	2/18	2/19	
2/6	2/7	2/8	2/9	2/10	2/11	2/12	



KCUB Flight Checker

(custom application written by RCGEO staff using an open source code base and cloud infrastructure)

“Can’t we just use a commercially available system for this?”

The screenshot displays the Flightradar24 interface. At the top, the navigation bar includes: flightradar24 LIVE AIR TRAFFIC, Apps, Add coverage, Data / History, Subscription plans, Social, Press, About, and Commercial services. A search bar is located in the top right corner.

The main content area is split into a left sidebar and a right map. The sidebar for flight N321BG shows:

- Registration: N321BG
- Owner: Private owner
- Aircraft image: Cirrus SR22
- Origin: CUB (COLUMBIA, EST (UTC -05:00))
- Destination: HVS (HARTSVILLE, EST (UTC -05:00))
- Scheduled: 11:30 AM
- Actual: 11:26 AM
- Estimated: 12:00 PM
- Aircraft Type: Cirrus SR22
- Registration: [blurred]
- Country of Reg: [blurred]

The map shows the flight path from Columbia, SC to Hartsville, SC. The aircraft N321BG is highlighted in red on the map, with a yellow line indicating its path. Other nearby airports are marked with triangles and labels like GAMCK, GRNET, DOUGH, UXPIC, PUUFF, ZIXIG, and HOPKI. The map includes street names, highways, and terrain features.

At the bottom, there is a mobile navigation bar with icons for 3D view, Route, Follow, Share, and More. Below this is a secondary bar with icons for Settings, Weather, Filters, Widgets, and Playback.

Our use case and solution requires more...

"200 South Saluda
Sunday, April 25th
0957

Twin engine, propeller
Apparently flying extremely low."

Richland County, SC, Internet Mapping

User Options:
 Hide Info on Hover Hide Legend

Base Map Type:
Roadmap **Richland County**
Imagery Google Satellite
Hybrid (Combine Above)

Richland County Layers:

- Property:
 - Address Labels
 - Parcel Number Labels
 - Road Maintenance Authority
 - Parcels
 - Zoning
 - Subdivisions
 - Tax Districts
 - Garbage/Waste Collection
- Boundaries:
 - County Boundary
 - Neighborhood Improvement Areas
 - Municipalities
 - Zip Codes
- Public Safety:
 - Police Stations
 - Sheriff Regions
- Civic:
 - Voting Locations

Parcel Information:
Parcel Number: R11310-17-07
Situs Address: 200 S SALUDA AVE
Primary Zoning: RS-3
Secondary Zoning:
Tax District: 1CC
NBHD Code: 021.02
Taxable Value: 401,600
Market Value: 401,600
Building Value: 326,600
Land Value: 70,000
Acreage: 0
Owner Name: WEISSMAN SHARON B &
Owner Address: /DAVID PAUL REDDY
Owner Address: 200 SOUTH SALUDA AVE
Owner City: COLUMBIA

2010-06-08	\$530,000	Qualified S
2006-11-07	\$525,000	Qualified S
2006-03-08	\$510,000	Qualified S

Commercial services

SHORTCUTS TO FIND

- Flight by route
- LIVE flight by airline
- Airports by country

Nearby

AIRPORTS 4 of 4

- Louisburg Triangle North Exec...** (LFN/KLHZ) 23 mi away
- Rocky Mount Wilson Airport (RWI/KRWI) 25 mi away
- Raleigh-Durham International... (RDU/KRDU) 30 mi away
- Kinston Regional Jetport (ISO/KISO) 45 mi away

10 of 147

N406BL / DA40 / N40...	11 mi away
N/A - N/A	

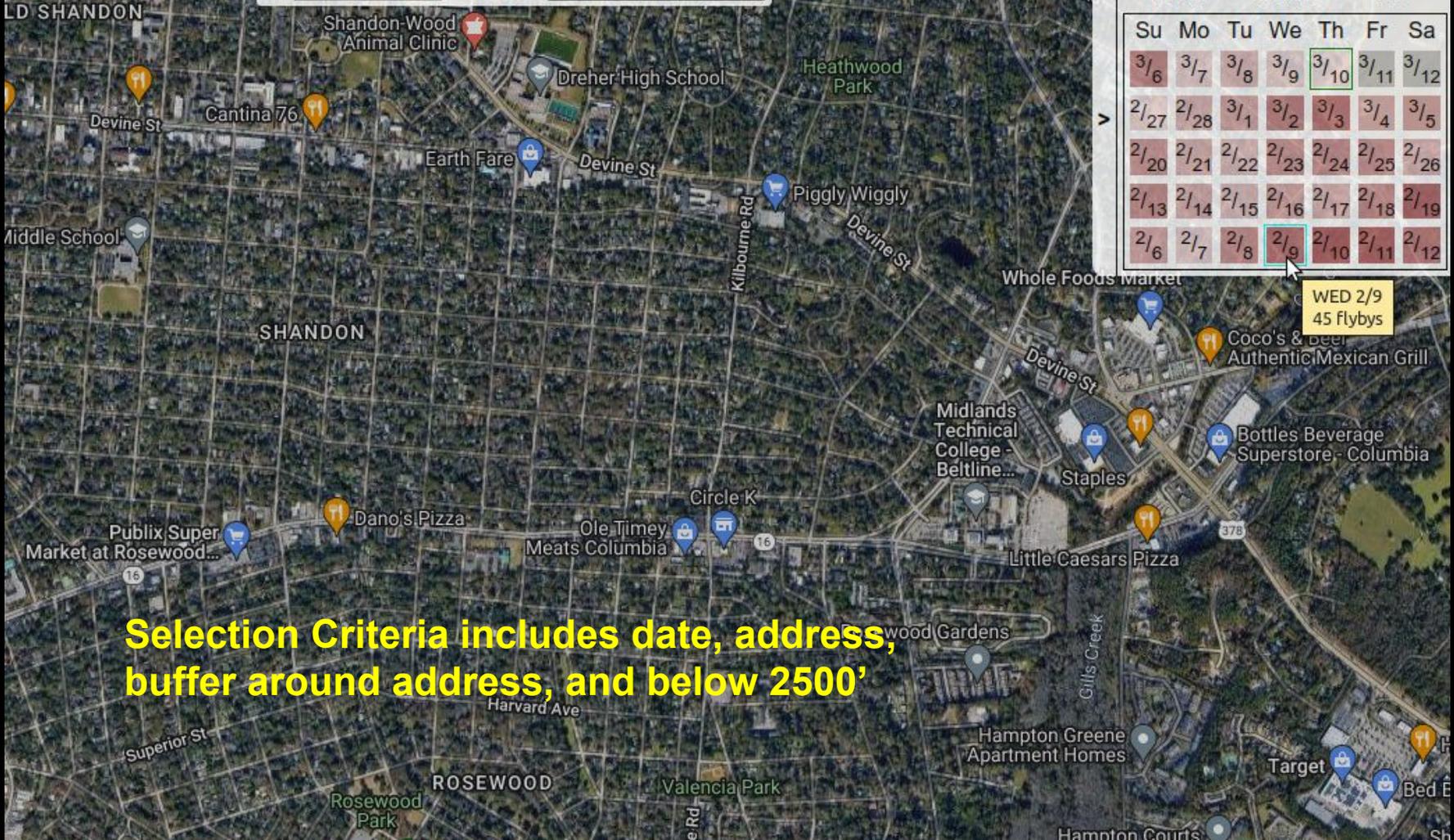
**Local Data Focus
vs
Commercial Airline Focus**

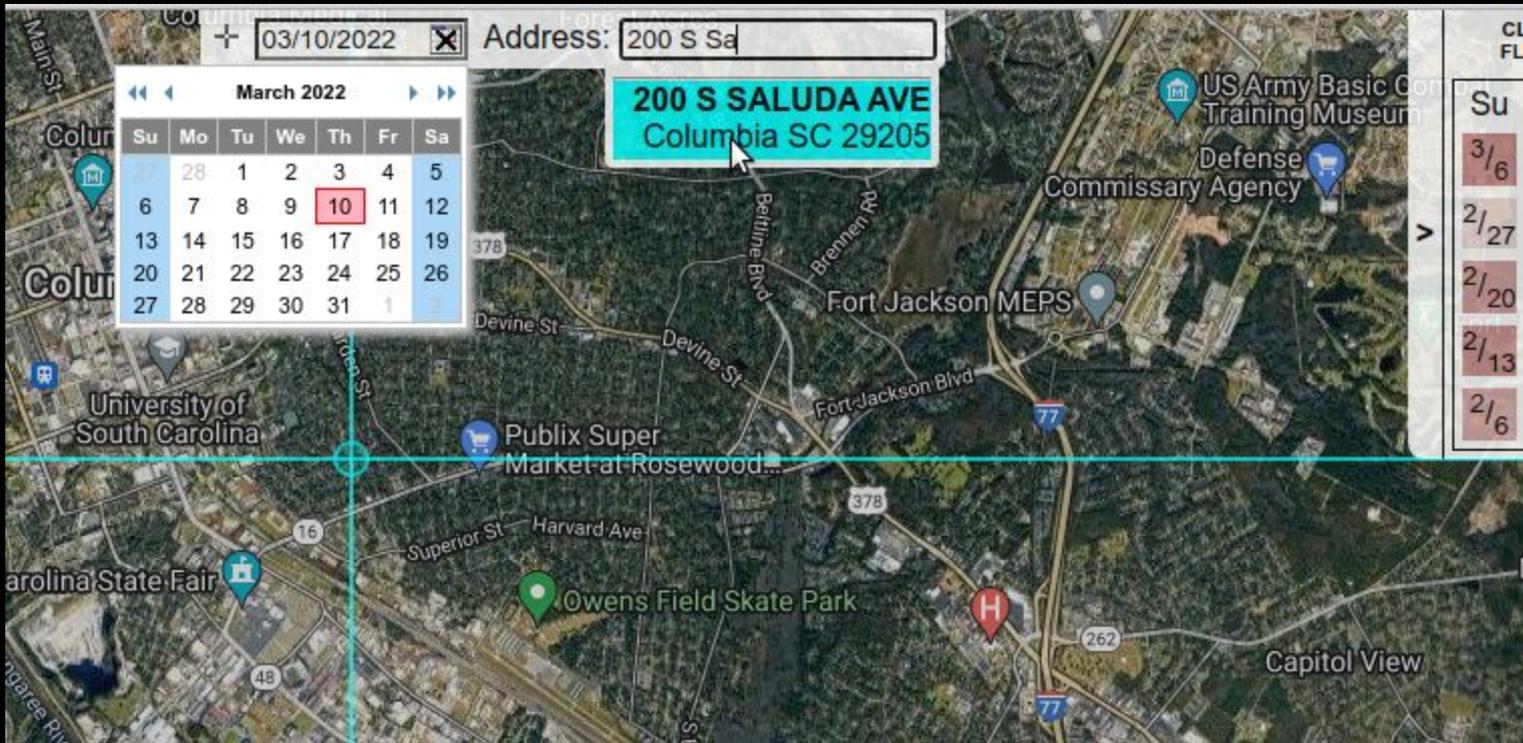
03/10/2022 Address:

CLEAR FLIGHT	CLEAR ADDRESS	RESET APP				
Su	Mo	Tu	We	Th	Fr	Sa
3/6	3/7	3/8	3/9	3/10	3/11	3/12
2/27	2/28	3/1	3/2	3/3	3/4	3/5
2/20	2/21	2/22	2/23	2/24	2/25	2/26
2/13	2/14	2/15	2/16	2/17	2/18	2/19
2/6	2/7	2/8	2/9	2/10	2/11	2/12

WED 2/9
45 Flybys

Selection Criteria includes date, address, buffer around address, and below 2500'





03/10/2022

Address: 200 S Sa

200 S SALUDA AVE
Columbia SC 29205

March 2022

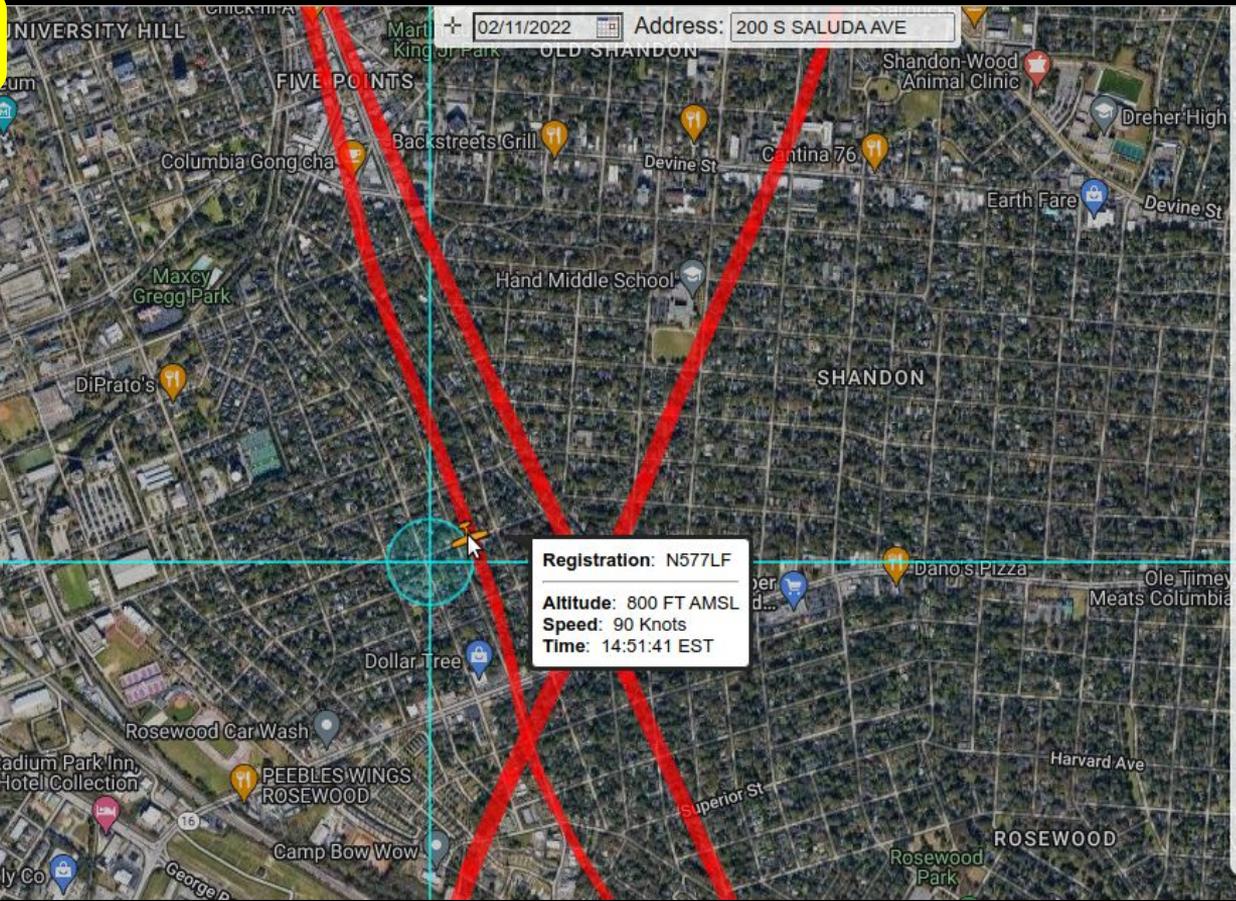
Su	Mo	Tu	We	Th	Fr	Sa
	28	1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

CL
FL

Su	3/6
>	2/27
	2/20
	2/13
	2/6

N577LF
AIRBUS HELICOPTERS E.

- 3/7/2022
- 3/4/2022
- 3/2/2022
- 2/28/2022
- 2/26/2022
- 2/25/2022
- 2/24/2022
- 2/23/2022
- 2/22/2022
- 2/21/2022
- 2/19/2022
- 2/18/2022
- 2/16/2022
- 2/13/2022
- 2/11/2022



CLEAR FLIGHT							CLEAR ADDRESS							RESET APP						
Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa
3/6	3/7	3/8	3/9	3/10	3/11	3/12														
2/27	2/28	3/1	3/2	3/3	3/4	3/5														
2/20	2/21	2/22	2/23	2/24	2/25	2/26														
2/13	2/14	2/15	2/16	2/17	2/18	2/19														
2/6	2/7	2/8	2/9	2/10	2/11	2/12														

N516RC	739 ft	225	14:00
N76AC	1271 ft	250	14:25
N934CT	0.631 mi	100	14:26
N213DB	649 ft	200	14:30
N321BG	699 ft	175	14:31
DCM6425	1367 ft	125	14:44
N577LF	260 ft	325	14:52
N1256P	1.031 mi	175	15:07
N9713W	596 ft	300	15:17
N483DA	214 ft	100	16:03
N9562B	92 ft	100	16:14
N21452	832 ft	300	16:30
N715RD	599 ft	25	16:49
N5965J	515 ft	-1	17:25
N345AC	1.979 mi	225	17:26
N5088N	1173 ft	-1	17:39

FAA REGISTRY

N-Number Inquiry Results

Data Updated Each Federal Working Day At Midnight



N577LF is Assigned

N-NUMBER ENTERED: 577LF

AIRCRAFT DESCRIPTION

Serial Number	7362	Status	Valid
Manufacturer Name	EUROCOPTER	Certificate Issue Date	08/15/2017
Model	EC 130 B4	Expiration Date	08/31/2023
Type Aircraft	Rotorcraft	Type Engine	Turbo-shaft
Pending Number Change	None	Dealer	No
Date Change Authorized	None	Mode S Code (base 8 / Oct)	51664552
MFR Year	2012	Mode S Code (Base 16 / Hex)	A7696A
Type Registration	Corporation	Fractional Owner	NO

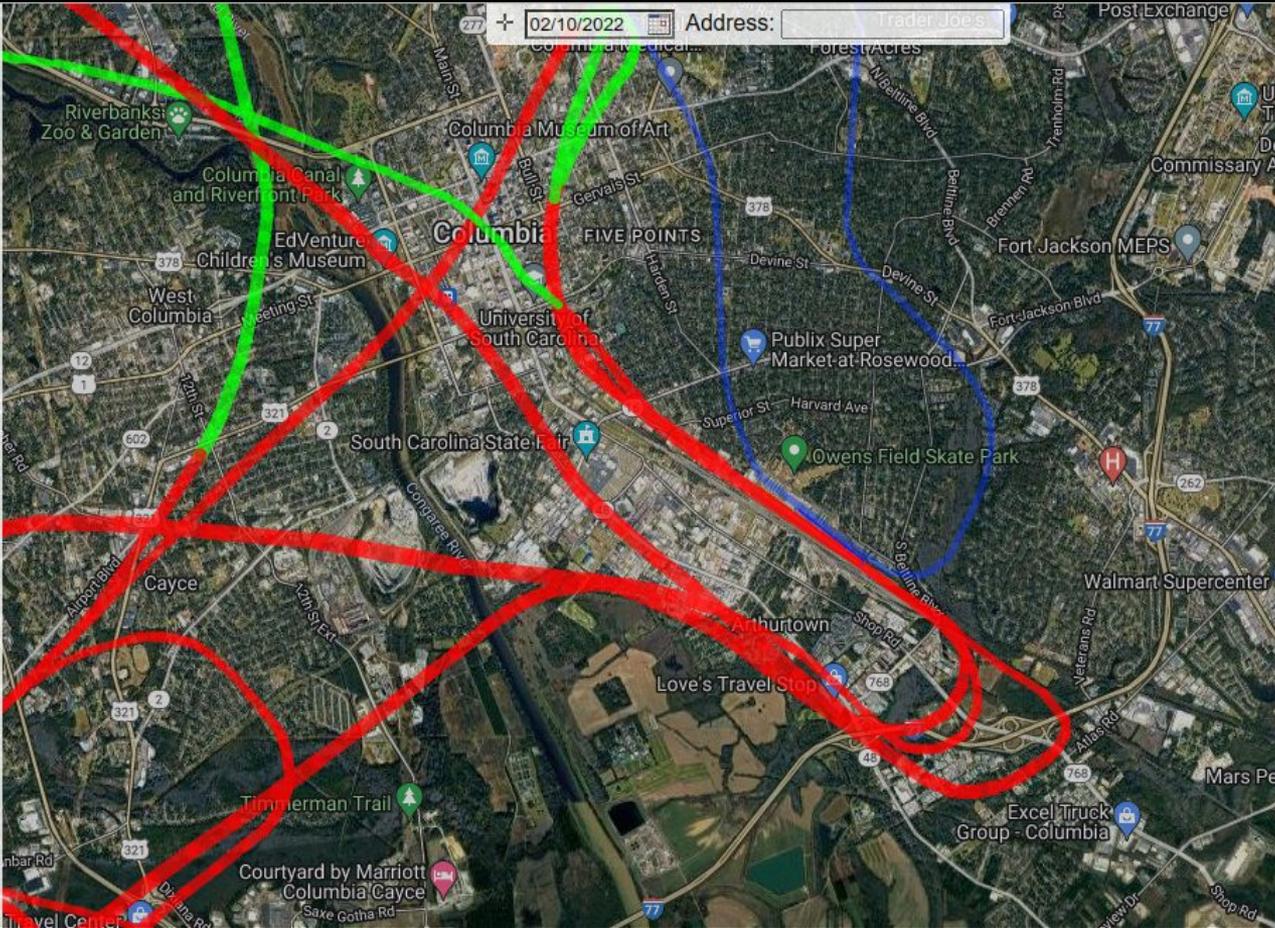
REGISTERED OWNER

Name	KEYBANK NA		
Street	1000 S MCCASLIN BLVD		
City	SUPERIOR	State	COLORADO
County	BOULDER	Zip Code	80027-9437

N22467

CESSNA 172 Skyhawk

- 3/8/2022
- 3/6/2022
- 3/5/2022
- 3/4/2022
- 3/3/2022
- 3/2/2022
- 3/1/2022
- 2/28/2022
- 2/26/2022
- 2/25/2022
- 2/24/2022
- 2/23/2022
- 2/22/2022
- 2/21/2022
- 2/20/2022
- 2/19/2022



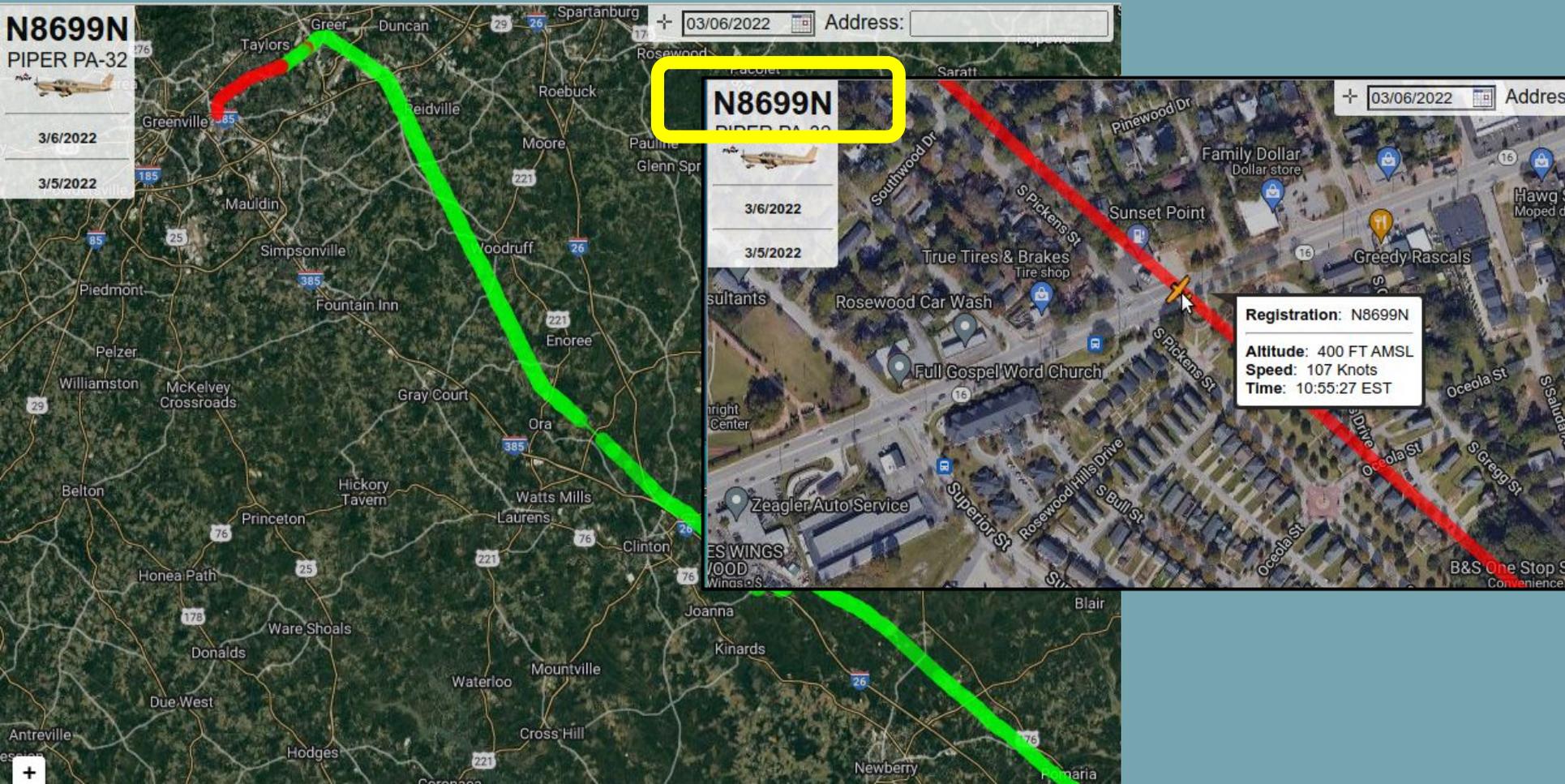
02/10/2022 Address: Trader Joe's

CLEAR FLIGHT		CLEAR ADDRESS		RESET APP		
Su	Mo	Tu	We	Th	Fr	Sa
3/6	3/7	3/8	3/9	3/10	3/11	3/12
2/27	2/28	3/1	3/2	3/3	3/4	3/5
2/20	2/21	2/22	2/23	2/24	2/25	2/26
2/13	2/14	2/15	2/16	2/17	2/18	2/19
2/6	2/7	2/8	2/9	2/10	2/11	2/12

REG	DIST	ALT	TIME
UPS1292	0.315 mi	50	07:49
PDT6216	0.485 mi	50	08:38
N522MM	341 ft	25	09:28
N321LN	0.346 mi	125	09:43
N5994S	192 ft	100	10:16
N22467	94 ft	25	10:27
PDT6189	0.669 mi	50	10:44
N9481T	0.285 mi	350	11:06
N77VR	1.400 mi	125	11:11
FDX2749	0.275 mi	175	11:17
N9154Q	949 ft	25	12:13
N12232	1042 ft	100	12:15
N730AK	1023 ft	100	12:31
XSR340	0.774 mi	200	12:34
N454GC	0.723 mi	150	12:42
N912AV	0.335 mi	50	13:00

Red: Below 1500, Green: 1500 and above

Familiar with KCUB?



“Can we talk to your programmer?”



From: Moses Calouro <moses.calouro@motioninfo.com>
Sent: Friday, August 27, 2021 4:31 PM
To: CHRIS EVERSMANN <EVERSMANN.CHRIS@richlandcountysc.gov>
Subject: Operations Reports & Aircraft Tracking

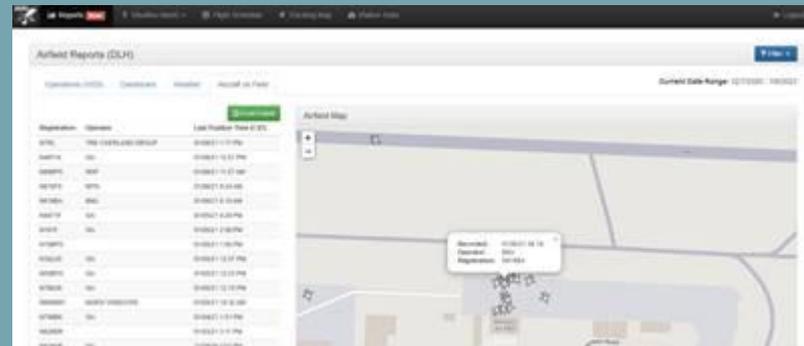
Hi Chris,

Would the airport be interested in a web demonstration of operations reports and aircraft tracking?

Our company can provide operations reports of ADS-B equipped aircraft along with aircraft details and ownership.

Here are few screenshots of our system:

Moses Calouro
Maritime Information Systems, Inc. / MotionInfo
www.motioninfo.com



ADS-B Considerations

(We do run into data issues - AGL/AMSL, Data Skips, etc.)

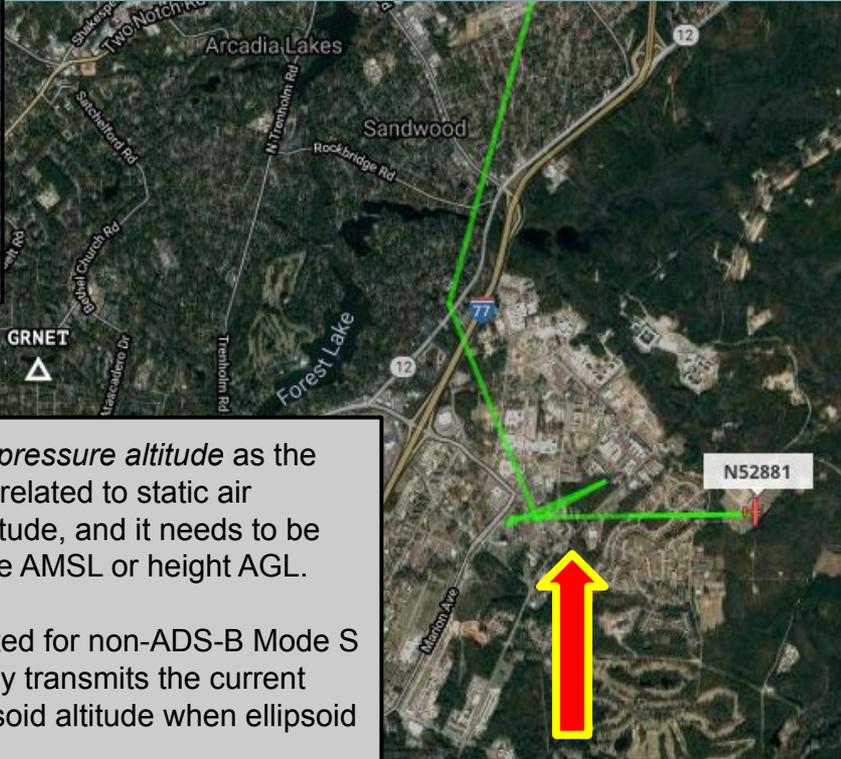
SERIAL NUMBER (MSN)	AGE (YUN)
32584	20 ye
Recent N73860 flights	
CALIBRATED ALTITUDE	VERTIC
36,000 ft	0 fpm
GPS ALTITUDE	TRACK
36,925 ft	184°
Speed & altitude graph	

Registration: N500SC
Altitude: 575 FT AMSL
Speed: 101 Knots
Time: 13:34:12 EST

SERIAL NUMBER (MSN)	AGE		
4170	7 y	N/A	N/A
Recent N327EE flight			
CALIBRATED ALTITUDE			
6,825 ft			
GPS ALTITUDE			
N/A			
Speed & altitude gra			

ADS-B and Mode S transmit *uncorrected pressure altitude* as the primary altitude value. That is, it's directly related to static air pressure. That's not necessarily a true altitude, and it needs to be adjusted to produce a correct height above AMSL or height AGL.

This is also the *only* altitude type transmitted for non-ADS-B Mode S transponders), and, separately, periodically transmits the current difference between baro altitude and ellipsoid altitude when ellipsoid altitude is available.



N52881

Beyond Paid Tracking Services

JONAH01 
Hex: AE040F [Share](#)


Image © Mike Fuchslocher

Reg.: 162784
United States
DB flags: military
Type: E6
Boeing E-6B Mercury
Type Desc.: L4J
Squawk: 2107

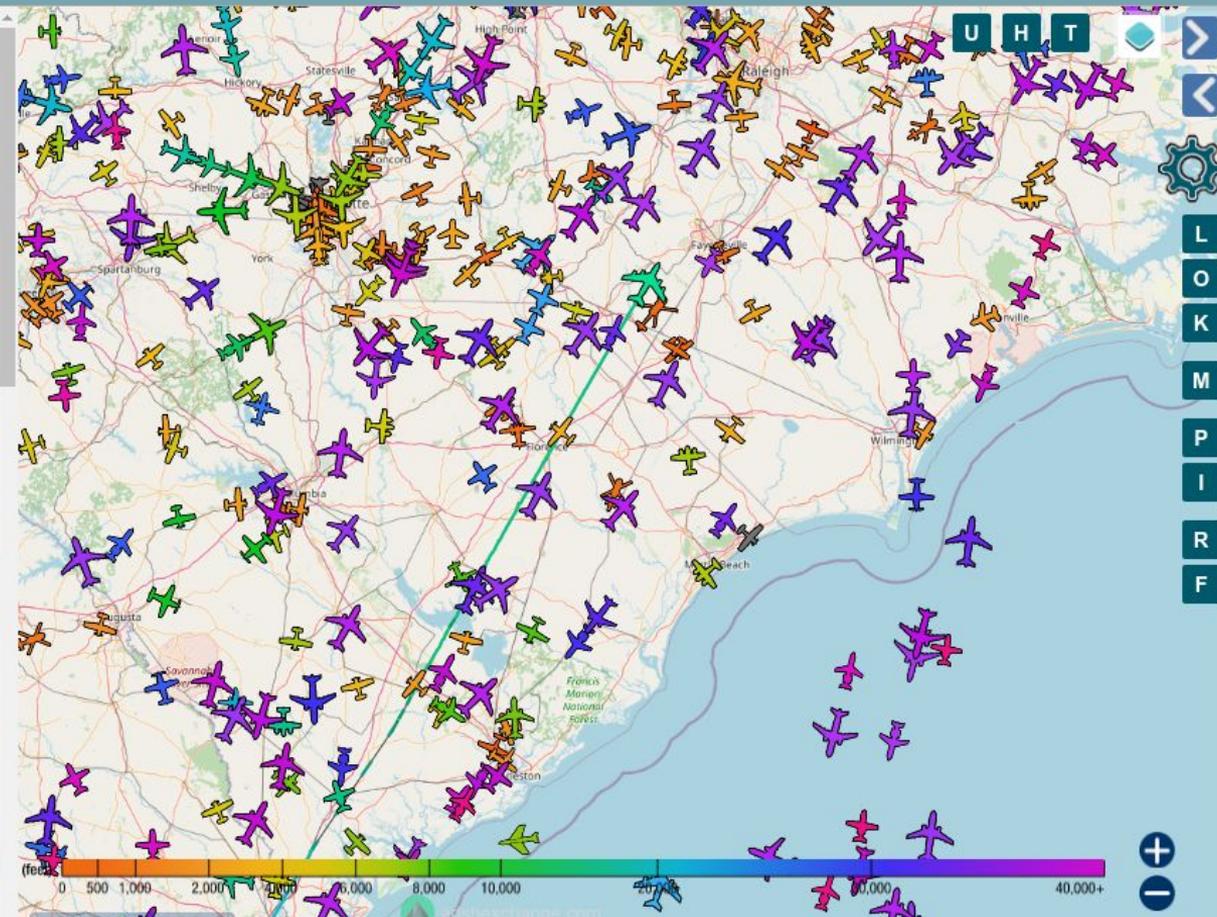
History 

SPATIAL

Groundspeed: 404 kt
Baro. Altitude: 14600 ft
Geom. Altitude: 14600 ft
Vert. Rate: 0ft/min
Track: 30.0°
Pos.: 34.887°, -79.252°
Distance: 67.3 NM

SIGNAL

Source: MLAT



Search Filters Columns

Search: Search Clear Search

Jump to Airport or Latitude, Longitude: Jump Clear

	Callsign	Type	Squawk	Altitude(ft)	Spd(kt)	D
	N408BL	DA40	1200	4000 ▲	97	
	N413BL	DA40	1200	-125 ▼	75	
	N134DW	PA44	0435	3475	119	
	N585AB	SR22	1200	3150 ▼	169	
	N4789N	C182	1200	3025	138	
	N35BL	C172	5317	2000 ▼	106	
	N54257	C172	1200	6025	112	
	AAL1327	B738	6152	37000	456	
	N319TB	TBM7	1200	900 ▼	127	
	MJS8902	FA50	5757	37000	442	
	N422BL	DA42	1200	750	114	
	N61HS	C182	1200	2575	126	
	N9390J	P28A	0451	2600	107	
	N425MF	C421	6620	25000	235	
	AAL1153	B738	1464	3775 ▼	238	
	JBU2004	A320	6673	33050	453	
	N2021E	BE35	1200	500 ▼	95	
	RPA5616	E75L	5652	2925 ▲	230	
	N69012	C152	0074	2500 ▲	90	
	N407LT	B407	1200	725	118	
	N717NB	C56X	2673	40000	381	
	RPA3437	E170	5743	35000	443	
	SWA344	B738	3770	36975	454	
	ASA754	B738	3535	5725 ▼	234	
	N302K	CL30	1525	41000	466	

More Than Commercial A/C

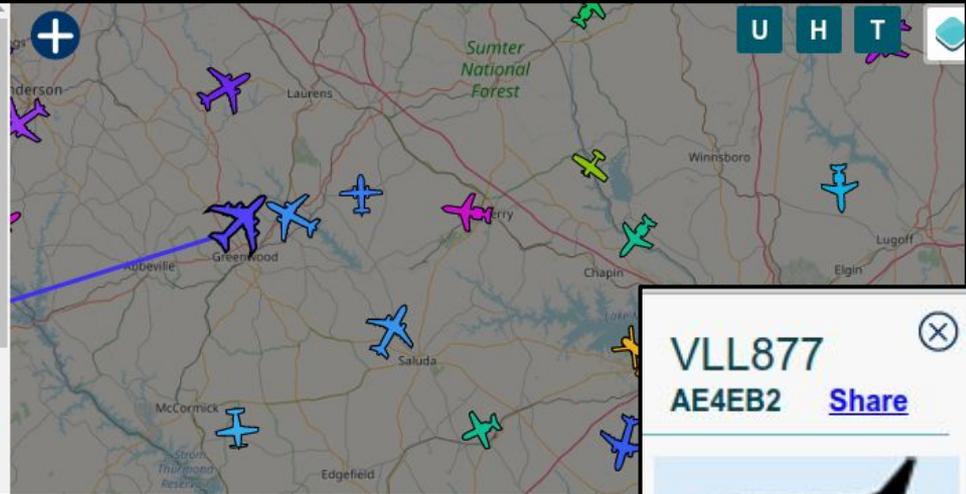
SPICE98
ADFEB6



Reg.: 75-0125
Country: United States
Type code: B742
Type: Boeing E-4B
Type Desc.: L4J
Squawk: 3635

SPATIAL

Speed: 477 kt
Altitude: 20,025 ft



NightWatch over Richland County

Training

Midair Refueling

PACK41
AE5E0F [Share](#)

Reg.: 17-46034
Country: United States
Type code: B762
Type: Boeing KC-46A Pegasus
Type Desc.: L2J
Squawk: 3520
[View on Planespotters](#)

History +

SPATIAL

Speed: 414 kt
Altitude: 26,025 ft
Vert. Rate: 0 ft/min
Track: 128.9°
Pos.: 31.828°, -79.795°
Distance: 144.7 NM



VLL877
AE4EB2 [Share](#)

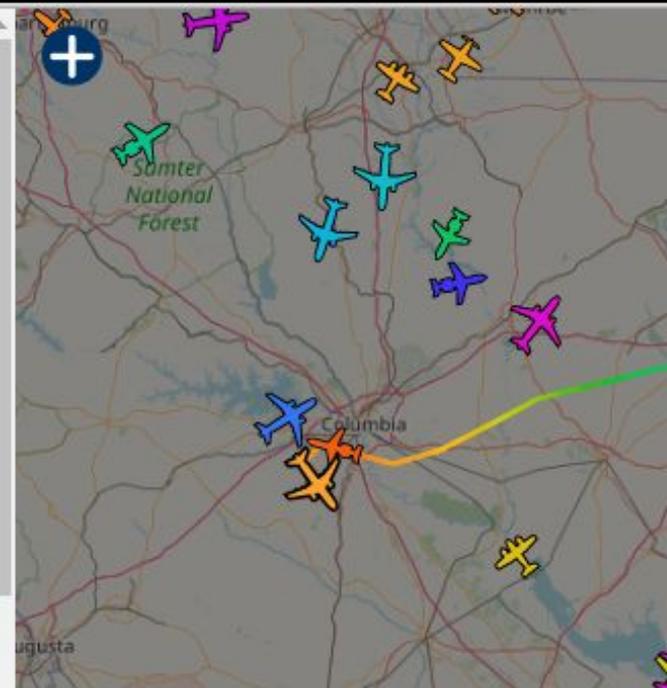


Reg.: 168428
Country: United States
Type code: P8
Type: Boeing P-8A Poseidon
Type Desc.: L2J
Squawk: 3613

History +

SPATIAL

Speed: 223 kt



EAGLE64

Hex: AE49C4 [Share](#)

 adsbexchange.com



Image © Jose L Roldan

Reg.: 09-9208

United States

DB flags: military

Type: C17

Boeing C-17A Globemaster III

Type Desc.: L4J

Squawk: 6274

History

SPATIAL

Groundspeed: 186 kt

Baro. Altitude: 1275 ft

Geom. Altitude: 1175 ft

Vert. Rate: 0 ft/min

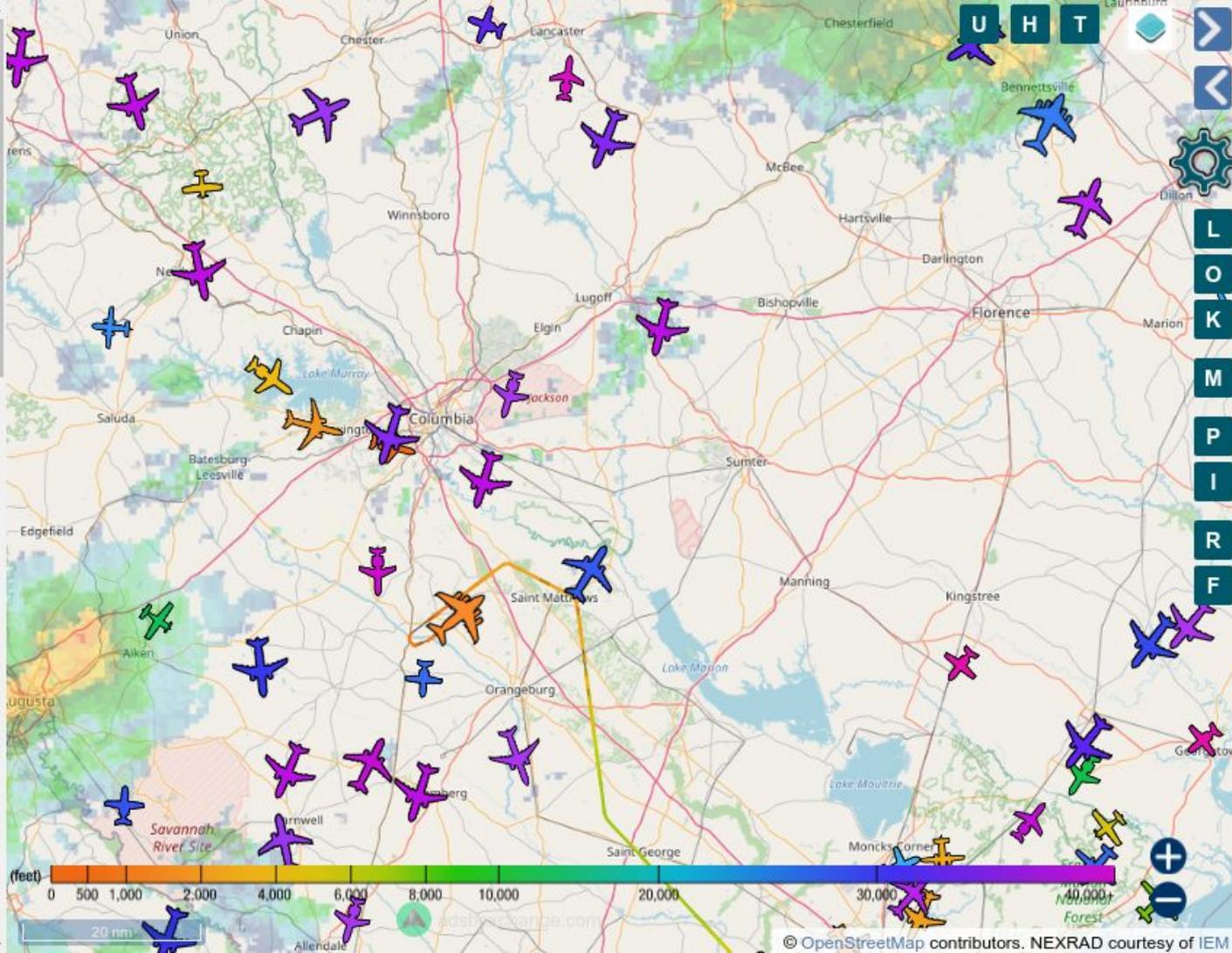
Track: 51.1°

Pos.: 33.631°, -80.993°

Distance: 181.8 NM

SIGNAL

Source: ADS-B



You don't see that every day in Richland County...

5Y8680 /GT18680
Atlas Air



© Samuel Zerilli

	MIA MIAMI EDT (UTC-04:00)	MMT COLUMBIA EDT (UTC-04:00)
SCHEDULED	7:30 AM	9:13 AM
ACTUAL	7:37 AM	ESTIMATED 9:06 AM

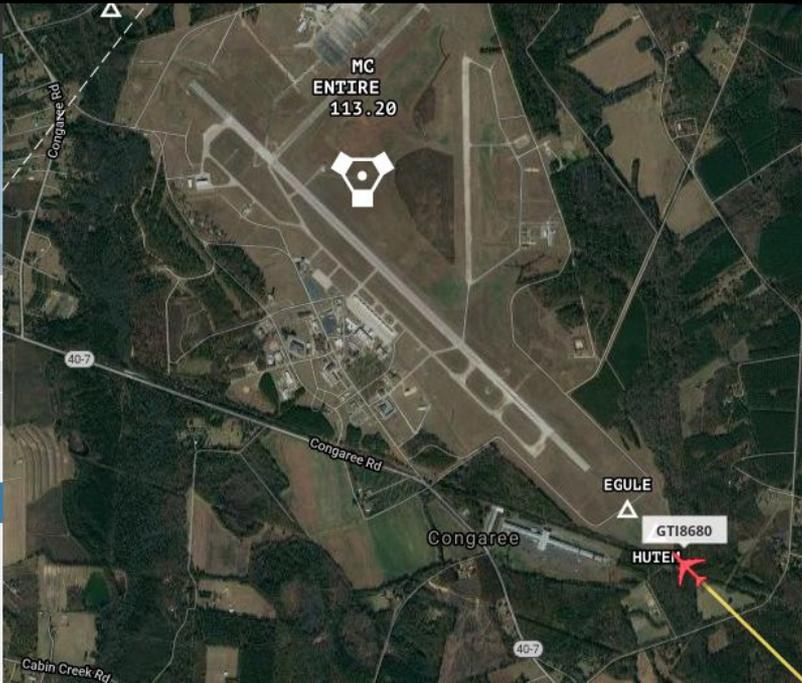
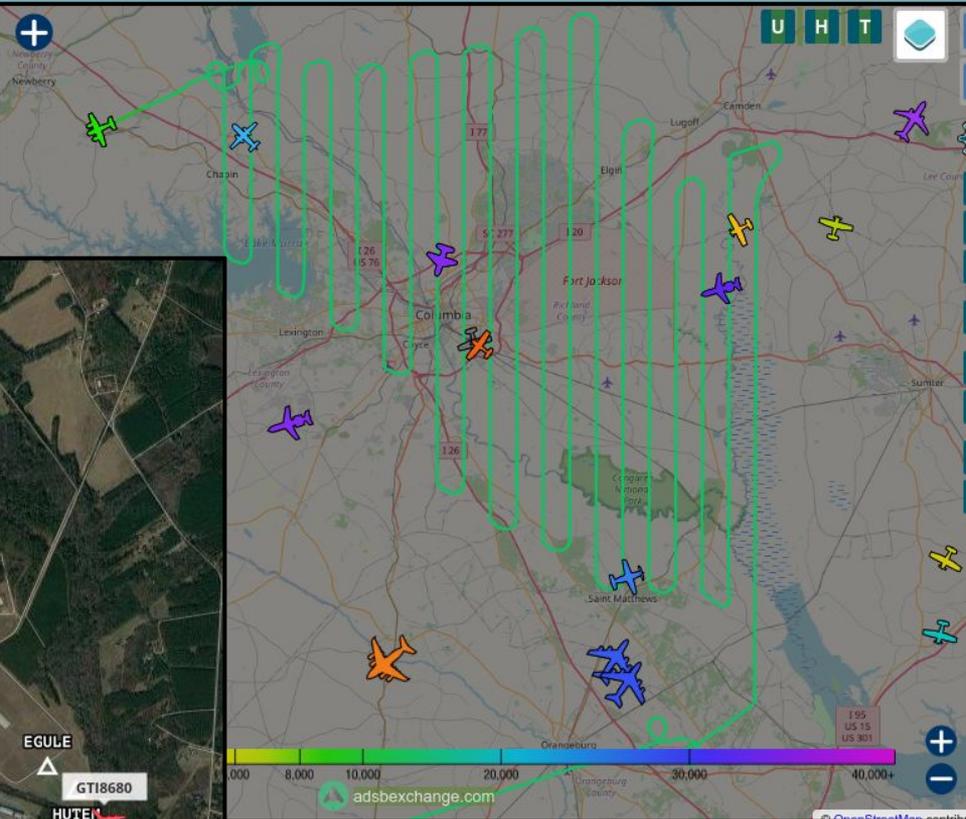
558 mi, 01:28 ago 3 mi, in 00:00

More 5Y8680 information

AIRCRAFT TYPE (B744) Boeing 747-48E(F)	COUNTRY OF REG. USA
REGISTRATION N419MC	AGE (DEC 1996) 24 years
SERIAL NUMBER (MSN) 28367	

N475RC
Hex: A5D527 Share

Reg.: N475RC
United States
Type: C404
Cessna 404
Type Desc: L2P



Our Own Richland County Assets

N262RC
Hex: A287E5 [Share](#)



Reg.: N262RC
United States
Type: UH1
BELL UH-1 Huey
Type Desc.: H1T
Squawk: 1200

[View on Planespotters](#)

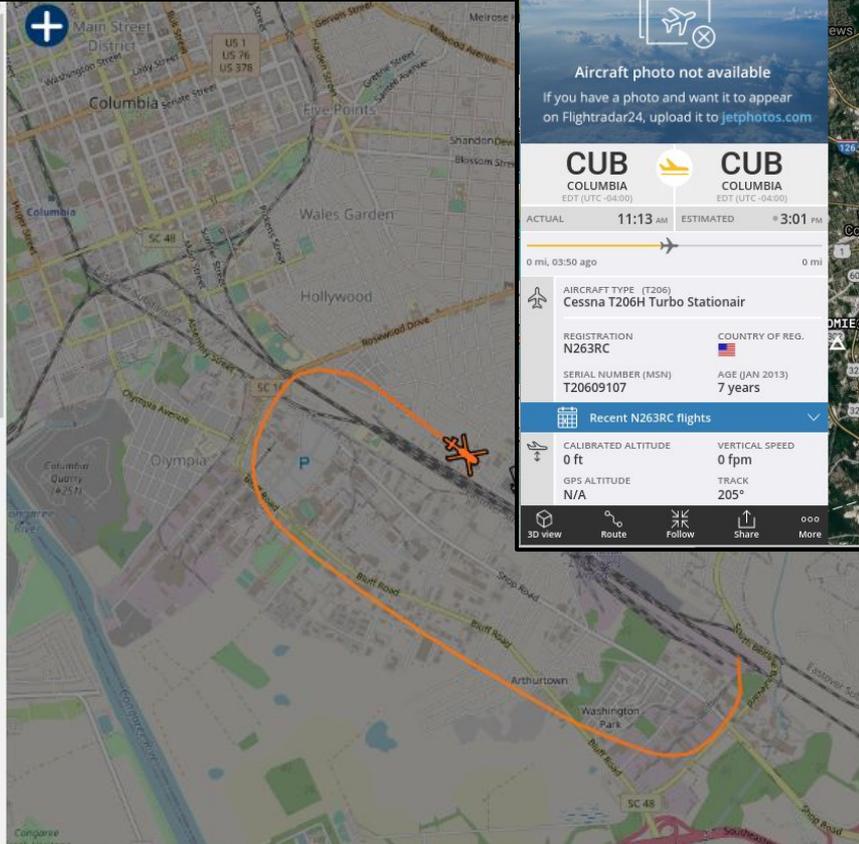
History [+](#)

SPATIAL

Speed: 32 kt
Altitude: ▼ 125 ft
Vert. Rate: -256 ft/min
Track: 126.2°
Pos.: 33.977°, -81.006°
Distance: 4.9 NM

SIGNAL

Source: ADS-B
RSSI: -1.7
Msg. Rate: 0.0
Receivers: 0
Last Pos.: 21 s
Last Seen: 21 s



N263RC
Private owner

Aircraft photo not available
If you have a photo and want it to appear on Flightradar24, upload it to [jetphotos.com](#)

CUB COLUMBIA
EDT (UTC-04:00)

CUB COLUMBIA
EDT (UTC-04:00)

ACTUAL 11:13 AM ESTIMATED 3:01 PM

0 mi, 03:50 ago → 0 mi

AIRCRAFT TYPE (T206)
Cessna T206H Turbo Stationair

REGISTRATION N263RC COUNTRY OF REG. USA

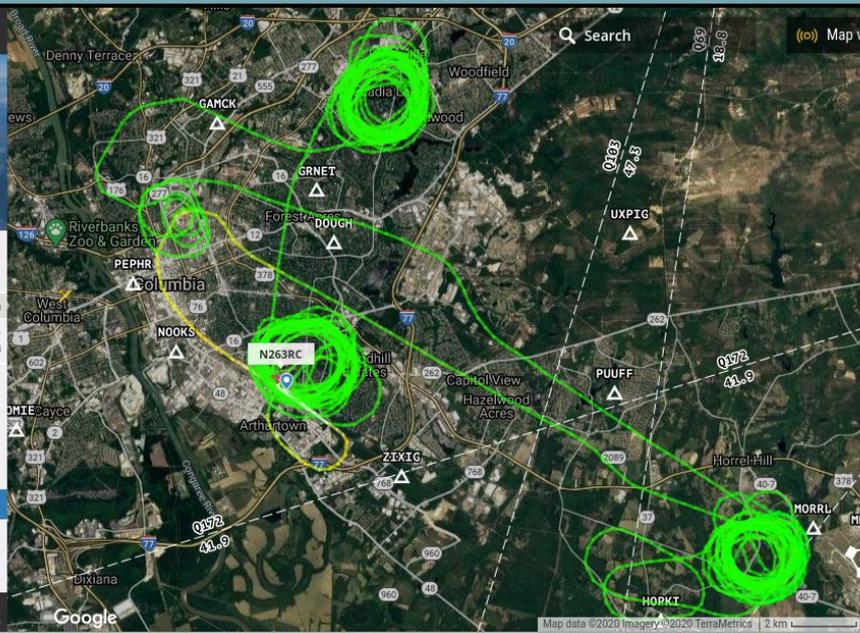
SERIAL NUMBER (MSN) T20609107 AGE (JAN 2013) 7 years

Recent N263RC flights

CALIBRATED ALTITUDE 0 ft VERTICAL SPEED 0 fpm

GPS ALTITUDE N/A TRACK 205°

3D view Route Follow Share More



RCGEO Supports KCUB

cure | flykcub.com



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(e.g., 124.400, 128.75)

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HF Oceanic Feeds
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City: Columbia State/Province: South Carolina
Country: United States Continent: North America
KCUB METAR Weather: KCUB 151453Z AUTO 15005KT
KCUB Flight Activity (FlightAware)
KCUB Airport Info (iFlightPlanner)
KCUB VFR Sectional Chart (iFlightPlanner)
KCUB IFR Low Altitude Chart (iFlightPlanner)
KCUB IFR High Altitude Chart (iFlightPlanner)

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