

Engineers Flying Club



Monthly Newsletter



November 1, 2017

Email contact: membership@efcokc.com

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Next Monthly Member Meeting will be Tuesday, November 7, 2017 at 6:30PM at the PWA Pilots Lounge

Board Meeting at 6:00PM

President's Corner

ADS-B, what do we do? This has been a question the board has been reviewing the last several months. Do we proceed Proactive or do we take a wait and see (Reactive) view.

Since this a Federal Mandate, not just wanting to add a new piece of equipment to our airplanes, how do we pay for the mandated upgrades? Come to the next membership meeting for discussion.

This month we have Senator Inhofe's assistant as our guest speaker. See Blake's article on details. Also, mark December 5th on your calendar for the EFC Christmas party.

November Board / Meeting

5:30 - 6:20	Executive Session
6:20 - 6:30	Interviews
6:30 - 7:00	Financials, Maintenance, Operations
7:00 - 7:30	Guest Speaker

7:30 Adjournment

Mike Crabtree
EFC President

Guest Speaker for November Membership Meeting

Bryson Panas is a 2008 graduate of the University of Oklahoma with a Degree in Business Entrepreneurship and minors in African American Studies and Marketing. He was born in Tulsa, grew up in Edmond, and is a lifelong resident of Oklahoma.

Before working for Senator Inhofe, Bryson operated a small screen-printing and clothing business in Oklahoma City, served as bailiff for Oklahoma County District Judge Jerry Bass, and operated an internet-based health initiative company that served communities across the US.

Bryson began working for Senator Inhofe in January 2016 as NW Field Representative, and then moved to cover SW and Oklahoma County in August 2017. He has enjoyed his time serving the constituents of Oklahoma and learning more about the state and federal governments.



Bryson Panas

Bryson will be speaking on behalf of senator James Inhoffe and will be discussing the following Aviation Topics:

- Senate passed 6-month FAA extension for appropriations- provides budget assurance for airport improvement funding
- ATC privatization
- Passage of FAA reauthorization out of Commerce committee
- Pilots Bill of Rights I and II
- Fairness for Pilots Act
- FLIGHT Act
- Federal Contract Towers (6 in OK)

I will also briefly touch on what's happening in the Senate Armed Services Committee, and add a few sentences about Infrastructure and Tax Reform happenings.

Hope to see you at the meeting!

ADS-B Mandate And The EFC Fleet

What are our options???

Do nothing and keep on flying...

If we do nothing, after 2019, we will be limited to flying no higher than 10,000 ft. msl or 3000 ft. msl over the Gulf or coasts. We could not fly over any class B airspace or within 30 miles of a class B airport (within the mode-C veil). We could not fly into Mexico and would probably not be able to fly into Canada. That is somewhat limiting but not a complete show stopper. In the longer term who knows if FAA will begin to limit services for flight following or IFR flight plans.

A probable impact for the club is a drop in the value of the fleet. Resale of aircraft will be competing with aircraft that are fully ADS-B compliant.

Install UATs in the airplanes...

UAT options can be less expensive for the box but the install would be more expensive. The UAT would be an additional avionic system in our airplanes, therefore the wiring and mounting would be substantially more involved than the 1090 option from Garmin. The overall cost may be less, but probably not by much. The UAT route would make our planes compliant and let us continue to use all airspace available to us now.

Replace the transponders in our planes with Garmin GTX 345's

This option has several advantages. We would be completely compliant with the ADS-B mandate and receive all services/functions available. We have to continue to have a functional transponder, not just ADS-B out to fly in the airspace that requires ADS-B. Since that

is the requirement it seems prudent to upgrade/replace our current transponders and comply with both requirements.

The GTX 345 has the following benefits since we have GNS430W's and MX20's:-

Fit into the panel where the current transponder sits.

Uses the GNS430W for the certified position source (saves \$'s)

Feeds traffic, and other ADS-B in products to the MX-20 and GNS430. (a benefit of staying with Garmin)

Also feeds up to 2 tablets or phones via Bluetooth from the GTX345. This gives the features of the Stratus/Foreflight combo without the Stratus. If you do not have a Stratus this gives you an immediate \$900 benefit. Some of the functions available on your tablet are:-

- Weather
- Traffic (both 1090 and 930UAT sources)

- **FIS-B** (current products at no subscription cost) are:
 - Airmen's Meteorological Information (AIRMET)
 - Significant Meteorological Information (SIGMET)
 - Convective SIGMET
 - METAR
 - CONUS NEXRAD
 - Regional NEXTRAD
 - NOTAM
 - PIREP
 - Special Use Airspace (SUA) Status
 - Terminal Aerodrome Forecast (TAF)
 - Winds & Temperatures Aloft
 - TIS-B Service Status
 - Attitude reference (AHRS)

How much does it cost?

The GTX 345 is \$5500 – \$6000 each (depends on options required for our slightly different avionics configuration from plane to plane). The install is about \$3k/plane.

We will be discussing how to cover this cost at the meeting Tuesday, Nov 7.

Why is this being discussed now?

We only have two years before ADS-B is required. The prices and products have likely stabilized and may go up from here. Only a third of business jets are compliant now. The demand for equipment is only going up and availability of installation appointments is going down. We have been told by Taft that the first available install time is next July. We need 4 planes equipped. The board of directors believe we must make a plan now to fulfill our responsibility to you.

For your reference the following is from the **GTX345 Pilots Guide**

(PED – personal electronic device i.e. iPad, iPhone..)

6 CONNEXT BLUETOOTH

The GTX 345 Connex interface allows communication with applications (i.e., Garmin Pilot and ForeFlight Mobile), while running on a PED. Connex works via the Bluetooth data link to provide up-to-date, wireless information throughout the cockpit. Refer to section 3.4 for Bluetooth pairing instructions. Up to two Bluetooth connections are supported by the GTX 345.

GTX 345 CONNEXT FEATURES

GPS Position and Velocity

• GPS position and velocity information from the GNS 430 is made available to PEDs.

ADS-B In Traffic

• ADS-B In traffic data that is provided to certified traffic displays is made available to PEDs.

FIS-B Weather and Flight Information

• FIS-B weather and flight information that is provided to certified displays is made available to PEDs.

Pressure Altitude

• Uncorrected barometric pressure altitude used by the GTX 345's certified transponder and ADS-B functionality is made available to PEDs.

Attitude and Heading Reference System (AHRS)

• When the GTX 345 is installed as a stand-alone device, a built-in sensor provides AHRS data to PEDs via Connex. (Attitude data is not output to other installed panel avionics.)

ALSO FYI ...The requirements (from the FAR)

(b) After January 1, 2020, and unless otherwise authorized by ATC, no person may operate an aircraft below 18,000 feet MSL and in airspace described in paragraph (d) of this section unless the aircraft has equipment installed that—

(1) Meets the performance requirements in—

(i) TSO-C166b; or

(ii) TSO-C154c, Universal Access Transceiver (UAT) Automatic Dependent Surveillance-Broadcast (ADS-B) Equipment Operating on the Frequency of 978 MHz;

(2) Meets the requirements of §91.227.

(c) Operators with equipment installed with an approved deviation under §21.618 of this chapter also are in compliance with this section.

(d) After January 1, 2020, and unless otherwise authorized by ATC, no person may operate an aircraft in the following airspace unless the aircraft has equipment installed that meets the requirements in paragraph (b) of this section:

(1) Class B and Class C airspace areas;

(2) Except as provided for in paragraph (e) of this section, within 30 nautical miles of an airport listed in appendix D, section 1 to this part from the surface upward to 10,000 feet MSL;

(3) Above the ceiling and within the lateral boundaries of a Class B or Class C airspace area designated for an airport upward to 10,000 feet MSL;

(4) Except as provided in paragraph (e) of this section, Class E airspace within the 48 contiguous states and the District of Columbia at and above 10,000 feet MSL, excluding the airspace at and below 2,500 feet above the surface; and

(5) Class E airspace at and above 3,000 feet MSL over the Gulf of Mexico from the coastline of the United States out to 12 nautical miles.

Appendix D to Part 91

Section 1.

Without ADS-B out you cannot fly within a 30-nautical-mile radius of each location in the following list.

Atlanta, GA (Hartsfield-Jackson Atlanta International Airport)

Baltimore, MD (Baltimore/Washington International Thurgood Marshall Airport)

Boston, MA (General Edward Lawrence Logan International Airport)

Camp Springs, MD (Joint Base Andrews)

Chantilly, VA (Washington Dulles International Airport)

Charlotte, NC (Charlotte/Douglas International Airport)

Chicago, IL (Chicago-O'Hare International Airport)

Cleveland, OH (Cleveland-Hopkins International Airport)

Covington, KY (Cincinnati/Northern Kentucky International Airport)

Dallas, TX (Dallas/Fort Worth International Airport)

Denver, CO (Denver International Airport)

Detroit, MI (Detroit Metropolitan Wayne County Airport)

Honolulu, HI (Honolulu International Airport)

Houston, TX (George Bush Intercontinental/Houston Airport)

Houston, TX (William P. Hobby Airport)

Kansas City, MO (Kansas City International Airport)

Las Vegas, NV (McCarran International Airport)

Los Angeles, CA (Los Angeles International Airport)

Memphis, TN (Memphis International Airport)

Miami, FL (Miami International Airport)

Minneapolis, MN (Minneapolis-St. Paul International/Wold-Chamberlain Airport)

Newark, NJ (Newark Liberty International Airport)

New Orleans, LA (Louis Armstrong New Orleans International Airport)

New York, NY (John F. Kennedy International Airport)

New York, NY (LaGuardia Airport)

Orlando, FL (Orlando International Airport)

Philadelphia, PA (Philadelphia International Airport)

Phoenix, AZ (Phoenix Sky Harbor International Airport)

Pittsburgh, PA (Pittsburgh International Airport)

St. Louis, MO (Lambert-St. Louis International Airport)
Salt Lake City, UT (Salt Lake City International Airport)
San Diego, CA (Miramar Marine Corps Air Station)
San Diego, CA (San Diego International Airport)
San Francisco, CA (San Francisco International Airport)
Seattle, WA (Seattle-Tacoma International Airport)
Tampa, FL (Tampa International Airport)
Washington, DC (Ronald Reagan Washington National
Airport)

Jerry Sparks
EFC Board Member

Helpful Information

Transiting Airspace With Flight Following:

<https://bruceair.wordpress.com/2017/10/19/transiting-airspace-with-flight-following/>

New Edition Of Instrument Procedures
Handbook:

<https://bruceair.wordpress.com/2017/10/20/new-edition-of-instrument-procedures-handbook/>

BruceAir's Guide To ATC Services For VFR
Pilots:

<https://bruceair.wordpress.com/2012/05/31/bruceairs-guide-to-atc-services-for-vfr-pilots/>

Birthday Checkrides

If your birthday is in November or December,
now is the time to schedule your birthday
checkride!