



## EAA Chapter 648

Longmont, Colorado 80503

Our next meeting is on Monday, March 9th, 2020, at 7:00 pm.



**T**hanks to all of you for reading our newsletter and I will keep on working to increase our readership and don't forget to patronize our advertisers if an aviation purchase is in your future.

*Remember, "Nothing happens until somebody sells something"*

### Chuckle of the Month:

Don't worry about avoiding temptation. As you grow older, it will avoid you.

## The President's Message:

Our next chapter meeting will be a tour of the Denver Air Route Traffic Control Center (ARTCC, aka ZDV, aka Denver Center), 2211 17th Ave, Longmont, Colorado; at our normal and regular chapter meeting time.

This is a secure federal facility with pass through metal detectors and positive photo identification required. Advance registration is HIGHLY advised by ZDV. Drivers license number, state of issue, and full name as printed on the drivers license. I suspect a passport would also work, it

does have a picture on it, but I'm just guessing here.

Please forward these details (name, number, state) to your illustrious chapter leader (me, Rick Hall) via email to rick648 @ zggtr dot org, via a call or text message to my cell phone at tree-zero-tree five eight 9 - 206 tree, or my home phone at tree zero tree 747-twenty forty two (probably the most secure). I'll forward your details to ZDV to make our entrance procedures much smoother and quicker, and will delete anything you send me from my computer or phone

Since this may be a popular event, and 'seating' may be limited, priority will be given to current chapter members and their immediate family.

## **Young Eagles Event with students from the SVVSD Innovation Center.\_**

Those of you that participated in our last Chapter meeting know the students at the Innovation Center would like to fly with us.

Therefore I proclaim March 7th, 2020 to be

**"Fly a Young Eagle from the Innovation Center at LMO" day.**

The aviation students from the SVVSD Innovation Center will be participating in a Young Eagles event at LMO, currently scheduled for Saturday March 7, 2020 from 10:00 mid afternoon. A rain date of March 14th at the same time and location. Anticipated attendance is less than 20 students.

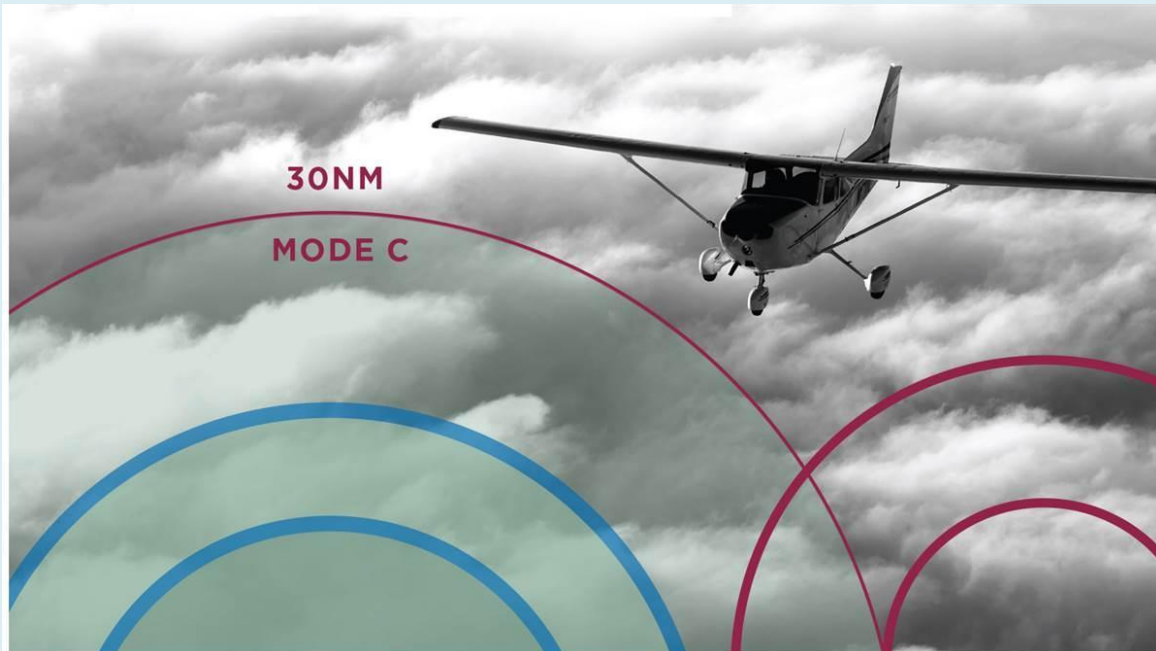
I think this article by Mike Collins with AOPA might be of interest to 648 members.  
Haiko

# **ADS-B: VEILED THREAT**

## **MORE GUIDANCE, AND 1090ES PRIVACY**

March 1, 2020 By Mike Collins

**The FAA's ADS-B mandate rolled in smoothly at 12:01 a.m. local on January 2, 2020. Pilots have been requesting, and often receiving, authorizations to operate aircraft not equipped with ADS-B in the ADS-B rule airspace defined by FAR 91.225.**



There was at least one high-visibility rejection, however, when Bahamian flag carrier Bahamasair was told that three of its four Boeing 737 jets couldn't fly into U.S. airspace; it has had to assign its sole equipped 737 and five ATR turboprops to its Florida routes until the other jets are equipped.

One of the most frequent questions we've taken since January 2 is this: Do I need an airspace authorization to fly under a Class C shelf if my aircraft is not equipped with ADS-B Out? No; according to FAR 91.225(d)(3), it's required only "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."

What you do have to watch out for are Mode C veils, extending 30 nautical miles from each Class B primary airport, where ADS-B Out absolutely is required. They encompass almost all Class B airspace. But there are exceptions large enough to, well, fly under, like a shelf extending several miles outside the San Francisco Mode C veil just east of Livermore, California, and one extending north of Las Vegas, among other places. Class B also extends beyond the Mode C veil in Phoenix—where the Mode C veil is centered on the airport and the Class B is defined by the Phoenix VOR, located more than a mile east of the field.

And a Mode C veil can cause problems flying below Class C airspace, too. Be wary of airports like Norman Y. Mineta San Jose International Airport in San Jose, California, where most of the Class C airspace lies beneath a Mode C veil. And at others—including Akron-Canton Regional Airport in Akron, Ohio; John Wayne Airport-Orange County in Santa Ana, California; and Long Island Mac Arthur Airport, east of New York City—a significant amount of the Class C is under a Mode C veil.

The Class C airspace for several airports is located completely within a Mode C veil, including Bob Hope Airport in Burbank, California; Chicago Midway International in Illinois; and Fort Lauderdale/Hollywood International and Orlando Sanford International airports in Florida.

**Note that if you request a change or deviation that takes your unequipped aircraft into ADS-B airspace, you can face potential enforcement action from the FAA.** Another misconception is that you cannot file a flight plan or fly IFR if you're not equipped with ADS-B Out. You can, as filing a flight plan is not tied to ADS-B, but if the aircraft is not equipped, you need to stay outside of ADS-B rule airspace. You can request an authorization to access ADS-B airspace online, at least one hour but not more than 24 hours before your flight, using the FAA's ADS-B Deviation Authorization Preflight Tool, or ADAPT (see "ADS-B: ADAPTING to 2020," November 2019 *AOPA Pilot*).

If you're happily flying along without an authorization, and the controller tells you to climb or make a turn that will take you into ADS-B airspace—above 10,000 feet msl, for example, or into a Mode C veil—it's OK to accept the clearance or instruction. Simply advise the controller, "I do not have ADS-B Out and I do not have an airspace authorization." Unless the controller amends the clearance or gives you other instructions, you can fly into the ADS-B rule airspace and be immune from a violation. Pilots cannot initiate or request the clearance that will lead to them flying into ADS-B airspace unequipped.

Note that if you request a change or deviation that takes your unequipped aircraft into ADS-B airspace, you can face potential enforcement action from the FAA. Same thing if you're shooting an instrument approach in an unequipped aircraft, and the procedure cuts through rule airspace—even if the destination airport is outside of rule airspace—it's a potential violation. There are quite a few approaches where this could happen, especially to airports located just outside of Mode C veils.

### **More guidance**

On December 31, 2019, the FAA released an updated Advisory Circular 90-114B, "Automatic Dependent Surveillance-Broadcast Operations." It helps to clarify a number of ADS-B operational considerations, including failures of ADS-B Out equipment in flight.

All airborne ADS-B failures will be handled by the FAA facility where the failure occurs. The flight can continue to its destination, and ATC will coordinate its handling with any subsequent ATC facilities along the remaining route of flight. If your ADS-B has failed, you're on the ground, and you need access to ADS-B rule airspace, you'll need to request an authorization through ADAPT. However, for operations outside of rule airspace, you can treat the inoperative equipment just like a failed transponder—placard it Inoperative and comply with 91.225(g)(1), which is

the same as 91.215(d)(2). An ADAPT authorization only needs to be obtained in order to enter rule airspace. “A couple of paragraphs were added based on our comments,” said Rune Duke, AOPA senior director of airspace and air traffic. “One new section of the AC specifically calls out what the FAA’s expectation is when ADS-B becomes inoperative and it resolves the inconsistency of language between the transponder and ADS-B rules on this topic.” That’s section 4.3.1.4.

The advisory circular also includes some important reminders about ADS-B In, which is optional, and reminds pilots to understand the proper use and limitations of the equipment:

- Only use the traffic display to supplement what can be seen out the window.
- Not all ground and airborne traffic will appear on the traffic display.
- Unless initiated by the controller, pilots should not use the call sign or aircraft identification of observed traffic in radio communications, as this could create confusion for both ATC and pilots monitoring the frequency.
- In TCAS-equipped aircraft, ADS-B In traffic display information does not change existing procedures for response to any TCAS advisory.

It reiterates instructions about formation flying, the only time the regulations allow a GA operator to turn off ADS-B Out. Per the Aeronautical Information Manual’s recently updated paragraph 4-1-20, if the formation flight is receiving ATC services, pilots can expect ATC to direct all non-lead aircraft to “stop squawk” and should not do so until instructed. For VFR formation flights not receiving ATC services, ATC directs that only the lead aircraft should squawk the assigned beacon code (in this case, 1200). All other aircraft should disable transponder and ADS-B transmissions once established within the formation.

## **1090 privacy**

For pilots and operators of aircraft equipped with ADS-B Out using 1090 MHz Extended Squitter (Mode S transponder) technology, the FAA’s program to provide real-time opt-out of ADS-B flight tracking went live in January. U.S.-registered aircraft equipped with 1090ES ADS-B Out, using a third-party call sign and flying in U.S. domestic airspace, are eligible to participate in the Privacy ICAO Address (PIA) program (see “ADS-B: Privacy Moves Forward,” February 2019 *AOPA Pilot*). PIA provides operators with an alternate, temporary ICAO aircraft address that is not associated with the owner in the Civil Aviation Registry, increasing privacy of their operations.

A third-party call sign is required for the operator to maintain privacy with ATC communications. PIA-compatible third-party call signs are available from FlightPlan.com and ForeFlight. Any type of aircraft is eligible for the FlightPlan.com service, and the fee is \$250 per year per aircraft whether piston- or turbine-powered. The company says it can provide trackable, random, or blocked call signs. Any

ForeFlight customer with a Performance or Business Performance subscription is eligible for an FFL call sign.

In this first phase, the FAA is providing the service directly; later this year, PIA will transition to third-party service providers. “We support the FAA’s PIA program,” Duke said. “We believe international harmonization efforts with countries like Canada should continue to facilitate a privacy framework for all of North America. Work must also continue on a long-term privacy solution for ADS-B and operator data.”

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**Mike Collins**

*Technical Editor*

Mike Collins has worked for AOPA’s media network since 1994. He holds a private pilot certificate with an instrument rating.

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**Contact Brandon Buckspan, [brandon.buckspan@gmail.com](mailto:brandon.buckspan@gmail.com), (303) 834-2482**

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