



EAA Chapter 648

Longmont, Colorado 80503

Our next meeting is on Monday, April 8th, 2019, at 7pm.

The meeting will be held at our usual venue, the Colorado Classic Aircraft office of Carol & Bob Leyner, located on the north side of the Longmont Airport.



Thanks 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:

When in doubt, hold on to your altitude. No one has ever collided with the sky.

The President's Message:

I don't think it's a huge secret that many of us are spending more time at our hangars and planes now that the weather is a tad warmer and daylight now extends past dinner time. But this is Colorado after all, and I think it would be premature to put the snow shovel away for the season.

We had a respectable turn out for our Young Eagles event last month, both pilots and planes, as well as students from the Niwot High School Aviation club. Many thanks to Dave Copp, Rick Brennan, Brian Pickerel, yours truly, Connie, Bill and Robin; as well as all the students from

Niwot High. James Osgood wrote a short report, with pictures, for us to use. You can find his report elsewhere in this newsletter.

The Colorado Air National Guard will be practicing water drops again, staging out of our own Vance Brand Airport the first week in April. These practice sessions are almost an annual tradition, Diann with Flight Deck Grill says it is (who am I to argue with a lady?). The Flight Deck Grill will be open when the ANG is here, thereafter on weekends until her normal opening sometime in May.

If you receive this newsletter in time, consider driving to LMO to view the Blackhawk's, Chinook's, and Lakota's. And if you have a spare shekel or two, consider buying a drink or lunch for one of the Reservists. Our generosity goes a long way.

Our next program will be at our usual venue at Colorado Classic, and the topic will be ferrying a Cessna 182 from Central America to USA, with or without all six cylinders.

Blue Skies and Tailwinds,
Rick

Le gros fromage

A report from James Osgood, a member of the Niwot High School Aviation Club, and a newly minted Young Eagle under the EAA Young Eagle Program.

I got to fly for the very first time today at the KLMO Vance Brand airport, our aviation club partnered with the EAA young eagles program and we all got to go up with instructors, I got to fly with an instructor who built his own airplane, a four seater with the prop in the back, apparently the plane was an experimental and didn't comply with certain federal regulations, I was nervous going up because the controls seemed a little barebones but it was incredible! I felt so giddy when we landed that I (and a few of my friends) boasted that we were ready for top-gun.



Fellow member Ryan inspecting the control scheme of the Cozy-MkIV.

My friend Anthony preparing for flight with his instructor, his plane looked like a P-39 with tiny wings.



Me, next to the Cozy-MkIV that I flew





The certificate I got from my instructor, yes I redacted my name so what?



Once we were done, Francis, the head of the club, took us over to his hangar to show us his family's wings.

A Brief History of Transponders

By Richard Socash

It all began in 1938 when RAF airplanes returning over the English Channel were equipped with a transmitting device, IFF, "Identify Friend or Foe," allowing coastal defense to determine if the incoming airplane was friendly or one of the enemy's. The code name for this project was "Parrot." Because the signal strength of this transmission would sometimes overwhelm the coastal radar reception, pilots were instructed to turn on or turn off their transmitter by "Squawking" or "Strangling" their Parrot. Eighty-one years later we're still told to "Squawk" however I've yet to be told to "Strangle."

A logical adaptation to IFF was to allow for a two digit code to be transmitted related to the mission. This was the military's Mode 1. Mode 2 further extended the code to identify the mission and allow it to be set and changed in individual aircraft during a flight.

Mode 3, corresponding to the civilian Mode A, was a four digit code, "squawk code," that could be set on instruction from air traffic control agencies. Current terminology often identifies this as Mode 3/A. A modification to the military's Mode 3 added the Pressure Altitude information in the transmission and was adopted by civilian aviation and identified as Mode C. Again, referencing both military and civilian usage, this is identified as Mode 3/C which is the common (Pre Mode S and ADS-B) transponder capability which includes a 4-digit squawk code, pressure altitude, and on request, an 18 second Ident pulse, i.e. three parameter message.

Military Mode 4 provided for a three pulse reply to a coded challenge. At this time, Mode S was also introduced allowing for a seven parameter transmission as opposed to the three parameter Mode C transmission. This was the so called "short squat" version for Mode S. Mode ES, extended squitter, bumped the information included in the transponder transmission to 49 individual parameters which is what we see now in the 1090ES and UAT ADS-B OUT transmissions. Military Mode 5 provided for a cryptographically secured version of Mode ES.

NOTE: Although the civilian-aviation information is reasonably complete and accurate, the corresponding military information is very much simplified and limited due to security classification and national defense considerations.

Ordinary transponder operations send out a 1090 MHz transmission message upon receiving an incoming 1030 MHz radar pulse. ADS-B operation by either a 1090ES device or a UAT device automatically transmits an extended message on an approximate once per second basis, independent of radar pulsing. It's important to note that if one is using a limited ADS-B OUT transmitting device that is not directly connected to the airplane's transponder, when flying in an area that does not have radar coverage, the ADS-B transmitting device may not be receiving updated pressure altitude values.

[Flight Deck Grill](#) will be opening early again this year to accommodate the Colorado National Guard annual wildfire training. They will be using LMO as their home base on April 2, 3 and 5, 6, 7 with make up days April 9, 10, 11, 12 as needed. Our hours

on these days will be 7:30 - 2:00 pm, breakfast & lunch. After which, AND weather permitting, we hope to be open Friday-Sunday until our full season begins in May. As in past years, our OPEN Flag will be displayed at the front of the airport on days we are open.

Can't you just taste the first Top Gun Burritos of the Season??

Dian Rennieke

PILOT'S TIP OF THE MONTH

Starting a Flooded Engine

Question:

"What should I do if my engine becomes flooded during start up?"



“Over-priming an engine may prevent it from starting. The presence of a strong fuel smell in the exhaust pipe indicates a flooded condition. This situation may occur in cold weather when successive attempts to start the engine are unsuccessful. Preheating the engine in cold weather reduces the likelihood of engine flooding.

Look at your POH (Pilot’s Operating Handbook) for the flooded start procedure if the engine won’t start and you suspect flooding. Whether you have a carbureted engine or a fuel injected engine, the general procedure for a flooded start is to move the mixture to idle cutoff and the throttle to wide open while cranking the engine. The idea here is to allow excess fuel to exit the engine through the exhaust. Eventually, when enough fuel clears the cylinders you reach a proper ratio of fuel to air and the engine should begin firing. Once it does, remember to richen the mixture and pull the throttle back for a smooth idle.

Letting the engine sit for a while also helps get rid of excess fuel.

Engine flooding can also set you up for an engine fire during startup. Review your POH for specific procedures for your aircraft for an engine fire during startup so that if it ever happens you will be prepared to respond properly.”

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Contact Brandon Buckspan, brandon.buckspan@gmail.com, (303) 834-2482

**I'm looking for partners to start building a Vans RV-7 or 7A.
Please give me a call if interested.**

**Rick Brennan
303-748-2373**

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