# The Mooney Flyer

The Official Online Magazine for the Mooney Community www.TheMooneyFlyer.com

November 2022



#### Editors

#### Contributors

Phil Corman | Jim Price

Bruce Jaeger | Tom Rouch | Ron Blum | Richard Brown | Linda Cormar

## **D**epartments

<u>From the Editor</u> – Nobody Asked; just our Humble Opinion

<u>Mooney Mail</u> – Feedback from our Flyer readers.

<u>Ask the Top Gun</u> –*Tom Rouch* answers your questions

<u>Product Review</u> – Bose ProFlight Series 2 Ear Plugs

<u>Upcoming Fly-Ins</u> – Fly somewhere and have fun!

<u>Have You Heard?</u> – This month's Relevant GA news & links

Mooney CFIs – The most comprehensive listing in the USA

### **F**eatures

<u>Bruce Jaeger, Wright Brothers Master Pilot Recipient</u> submitted by Peyton Metzel

Airplane on Ground (AOG) by Phil Corman

**Quiz** by Jim Price

78878's Final Flight by Richard Brown

Filing IFR to an Airport that does not have an Instrument Approach by Mike Jesch

Careful Not to Snicker by Jerry Proctor

Keep These Things in Your Mooney by Jim Price

My Dad's Aunt Olive by Terry Carraway

What is a BatteryMINDer? by Jim Price

**Best Christmas Gifts for Pilots** 





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The views expressed in each author's article are their own.

The Mooney Flyer's goal is to educate, inform, and entertain Mooniacs.

# From the Editor Phil Corman

# **Switching Batteries in Flight**

My Mooney has two batteries. When I know the battery not being used might be low on charge, sometimes I want to switch batteries enroute. But then I remember Don Maxwell telling me that this is not well advised. But recently I wondered: You have always counseled not to switch batteries in flight, but can I flip the MASTER to OFF, then switch batteries, and then the turn the MASTER back ON without damaging the avionics?

Don's Reply was: It would be the same thing. I only caution maybe to the extreme in case the relay fails – and they do and often. If relays are good and don't fail, you should be able to switch anytime. If you are under a good load and switch, causing the relay to fail, it makes a mess. I would say switch at beginning of flight and only switch in air in an emergency. Just my 2 cents.

So, I no longer think I am very smart, but wanted to pass along this little gem of wisdom that may save your avionics.



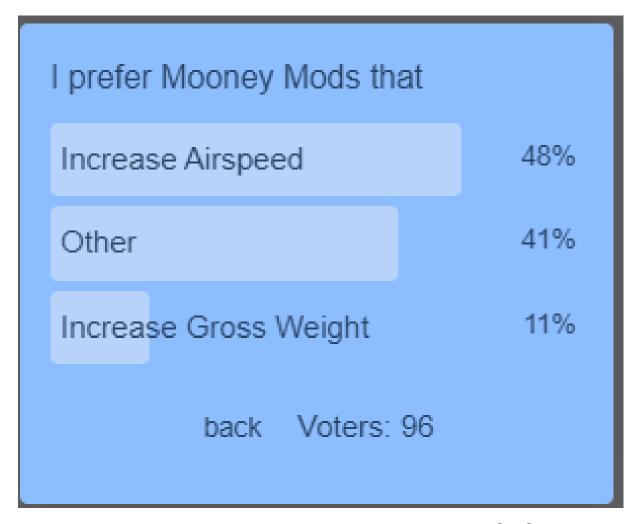
#### **Using BatteryMINDer Effectively with 2 Batteries**

If you have two batteries, you will need to setup a plan to charge them. You can charge both of them at the same time, or you can run separate wires to both batteries. I chose to run separate wires to both batteries because the BatteryMINDer measures the temperature of the battery to determine the charge level. I felt that the circuitry would get confused with two batteries, not knowing which temperature to use.

Here is an effective way to charge/maintain your batteries: After a flight, when you get back to your hangar, connect the battery that you did not use to the BatteryMINDer so it can be charged and desulfated. For your next flight, select that newly charged

battery for flight and after the flight, connect the other battery to the BatteryMINDer. This keeps both of your batteries charged and desulfated, maximizing the life of both batteries.

If you only have a single battery, you should plug that battery in after you land.



Next month's poll: "Gear Up Incidents are Caused by:" **CLICK HERE** to vote.





**RE: Your Article on How to Avoid Gear Ups** -- I don't disagree with anything you wrote, but we can do more.

Isn't it time we stopped beating up on pilots with "always do this", or "always do that", GUMPS, checklists, etc. etc. etc. and started using technology to overcome our human penchant for forgetting things?

Last year 100% of the US airliners landed with the gear extended. 100%

While an Enhanced Ground Proximity Warning System (EGPWS) is priced for the expensive planes, no one can argue with the success of the technology in preventing not just gear up landings, but a plethora of pilot sins like flying into terrain, forgetting flaps...and gear, and so forth.

Phil, the price of such technology is coming down, insurance rates are going up. How about a Mooney Flyer article on the technology available now, particularly the <u>Landing Height System (LHS)</u> wired into the gear? Maybe it's time for us to "gear up" our planes with technology and stop all the gear up landings? Gus H

# CAUTION

Cranky when not flying!
If this person is not at any flight controls, back away slowly and find someone else to annoy.

TO FLY OR NOT TO FLY WHAT A SILLY QUESTION!

# Bruce Jaeger – Wright Brothers Master Pilot Award

Bruce D Jaeger received the Wright Brothers Master Pilot Award during the recent Mooney Summit in Tampa, Florida.

Bruce soloed in Willmar, Minnesota in 1970 in a Mooney Alon A-2. He bought Willmar Air Service, Inc. from his in-laws, John and Mary Jane Rice, in 1979. Both John and Mary are members in the Minnesota Aviation Hall of Fame. Bruce successfully operated the business which owned and operated all Mooney types, Piper Aztec, Navajo, Warrior, Cherokee, Cessna 120, 310 Beechcraft Baron B55 and B58, A36, and Columbia 300 and 400, until his first retirement in 2008. He was primarily involved with Mooney aircraft, both sales and maintenance, but was also a charter pilot, public speaker, an aviation writer,

(including pages for the *Mooney Flyer*), and a certified flight instructor. He served 19 years as a Director, Vice President, and President of the Mooney Aircraft Pilot's Safety

Foundation. That responsibility included multiple weekend seminars throughout the United states every year. All of this was in addition to being a business owner and airfield manager. Bruce is a Master Certified Flight instructor, holds Commercial, SEL, MEL, Instrument, CFI, CFII, CFIIME certificates and in 2017, he was inducted into the Minnesota Aviation Hall of Fame. Bruce has accumulated over 18,000 flight hours.

Bruce has been involved in several other businesses dedicated to improving the general aviation community. "Weep No More" is a concept that Bruce and Paul Beck created and perfected to address Mooney fuel tank issues. After selling that business, but just not ready to retire or give up the flying bug, he formed Jaeger Aviation, Inc. As one of the most experienced Mooney pilots in the world, he gives back by offering personalized flight instruction and recurrent training in Mooney Aircraft. His creative side surfaced again as he developed ways to restore the interiors of older Mooneys by refurbishing the plastic side panels to create a new, more modern "Spatial Interiors." Wisconsin Aviation now operates Spatial Interiors as part of their business, which will undoubtedly continue breathing new life into older aircraft.



# **Airplane on Ground (AOG)**

Imagine that you land at an airport, (not your home airport), and encounter an issue with your Mooney. This issue needs to be addressed before you feel comfortable enough to depart.



You have the following choices:

- 1. Call a mechanic on the field for assistance and repairs
- 2. Troubleshoot the issue by yourself
- 3. Call your trusted mechanic and have them walk you through troubleshooting and repairs
- 4. If you are enrolled in Savvy Maintenance, you can call them

Using a mechanic on the field presents you with unknowns. Savvy Maintenance has published dozens of stories of issue misdiagnosis resulting in very expensive/unnecessary repairs.

I like Option #2 perhaps coupled with Option #3. In the best scenario, you find the problem and you can fix it yourself. The second best option is that you find the problem but need a mechanic and/or parts to fix the problem. But at least, you have yourself and your trusted mechanic involved. With some tools and an iPhone, you can quite effectively communicate with your mechanic.

### Things You Can Do Yourself

I always recommend beginning with a systematic troubleshooting plan wherein you test and eliminate potential sources of the problem. Start with the most likely items and also the easiest items to check.

## Scenario #1 – Rough Running Engine

There are several causes of a rough running engine, some of which are easier to diagnose and fix than others. These include an issue in either the ignition system, and/or the fuel distribution.

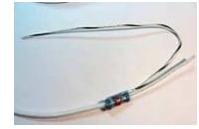


The easiest thing to check yourself is your fuel. Sump both wing tanks and look for water or other foreign object matter. Don't forget to also sump from the cockpit, as this is the lowest point in your fuel system and the place that water will hide.

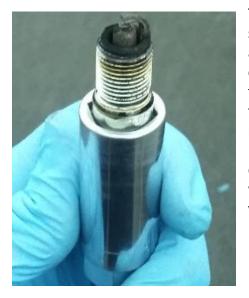
Let's continue with something easy – your magneto's P-Lead. Check both magnetos and If your engine dies on one magneto, it is most likely that your P-Lead

has shorted to ground. You can check this easily and it is an easy repair.

Let's follow with the next easiest thing to check – deposits in your cylinder. Perform a runup with slightly higher RPMs. I usually do a runup in my Eagle at 1700 RPM, but to clear deposits, I run it up to 2000 RPM.



Then, if that was the issue, lean the mixture and burn out the deposits. It usually takes a minute or so. If your engine is now running smoothly, voila!



The next easiest item to check for a rough running engine are the sparkplugs. If you have an engine monitor, you can probably isolate an offending sparkplug since the CHT and EGT will vary from the other cylinders. Go to the cylinder with these indications and pull the sparkplugs. The top plug is easier to get to, so check that one first. If it is damaged, needing cleaning or gapping, address that and reinstall. If not, check the lower sparkplug and do the same. Hopefully you have a spare sparkplug and can easily change it. Then do another runup and check for smooth operation. You may also want to do a fast taxi or aborted takeoff run for reassurance that you addressed the issue(s).

A clogged fuel injector is the next candidate to check for a rough running engine. You can see this on your engine monitor with a colder CHT than the rest of your cylinders. Unless you have the tools and the fluids to remove and soak/clean your injectors, you'll need an A&P's assistance. But it's easy to remove, clean and reinstall.

#### Symptoms of a clogged fuel injector:

- Engine runs very rough
- · One, multiple or all the cylinders are not firing.
- · The engine does not make power.
- Engine does not want to start.





At this point, if you have not found the problem, things take more effort and tools. If you have a borescope or access to one at this airport, pull the top sparkplug and peak inside the cylinder. Look for the hash marks on the cylinder wall. If they are not visible, then you probably have worn rings and loss of compression. Then look for the burn pattern on the exhaust valve. If it is not symmetrical, you have a failing exhaust valve and should not fly until its replaced

Another thing you can check for is metal in the oil filter. You'll need a spare filter or access to one on the airport. Pull your filter and utilize an oil filter cutter. Cut out the filter material and flatten it on a bench. If you see metal particles, then get an A&P for assistance in diagnosing the material. If the material crunches into small pieces in your hand, it's not metallic, just engine combustion byproduct.

#### Starter Doesn't Work

There are two starter issues that you can address on your own when away from home. The first happens



when your starter doesn't turn the engine at all, sometimes accompanied by a "tic tic tic..." noise. This indicates a bad battery. You can recharge it and try again. The second problem is when you hear your starter turning but the engine does not. On Continentals, this is the onset of a failing starter adaptor. You can address this issue by plugging in a GPU. Sometimes the extra voltage/amperage will be enough for the starter to engage and get you home where you can replace the adaptor.



### Summary

There are many things you can check and maybe fix yourself. But, unless you are an A&P/IA, it is probably wise to have an A&P/IA check your work before departing,

If you are not mechanically inclined, then it might be prudent to call your trusted mechanic and troubleshoot/isolate your issue using your iPhone for pictures and sound. At the very least, your mechanic can guide your interaction with the local mechanic.

Another reliable solution is to contract <u>Savvy Maintenance</u>. You simply call Savvy and they walk you and/or the local mechanic through the troubleshooting process. They are experts at finding the problem

and getting you home safely with minimal repairs and expenses. Savvy has several contracts that can meet your budget and provide knowledgeable resources to ensure your Mooney issue is resolved at minimal cost, while protecting you against a mediocre local mechanic.



# What is a BatteryMINDer?



WVI



You may have noticed advertisements for the <u>BatteryMINDer</u>, or you have friend that has one. The BatteryMINDer is not like a Ground Power Unit (GPU), which is designed for limited duration use while the pilot is with the airplane. A BatteryMinder is a trickle charger that's designed to run full-time while the airplane is shut down. After fully charging your battery, the BatteryMINDer goes into maintenance mode and desulfates your battery. This has the effect of significantly increasing the life of your battery. It is ideal for airplanes that don't fly every day and it is especially helpful during the winter months. Simply plug in the BatteryMinder and walk away. It will keep your airplane's battery topped off and ready to go, even

if your next flight is many weeks away.

A <u>BatteryMINDer</u> connects directly to the battery, either with <u>ring terminals</u> or with a <u>quick disconnect plug</u>. If you're considering a battery maintainer, we strongly recommend the BatteryMinder line because they are the only ones made specifically for aviation. Aircraft batteries do have unique chemistry and cheap lawn mower battery chargers can easily damage a Concorde or Gill battery.





As you can see by the above testimonial, TBM batteries are very expensive; almost 10 times more expensive as a battery for your Mooney.

No matter where you live, hot or cold, if you employ a BatteryMINDer, you may double your battery life. Just leave the BatteryMinder in charge of things when you're gone.

# It Alerts You

On one occasion, I went to the hangar and noticed a yellow light flashing on my
BatteryMINDer. I was accustomed to seeing a green light, so I reasoned that a yellow
caution light couldn't be good. I looked at the BatteryMINDer manual and learned that
the yellow light indicated that my battery was in trouble did not pass the BatteryMINDer test. I took my

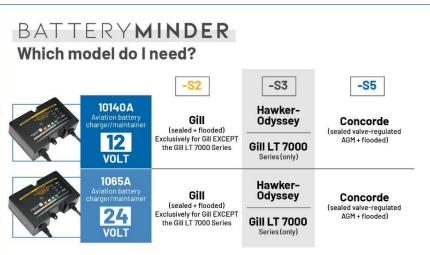
aircraft to my local Mooney Service Center and sure enough, the battery was toast. I loved that the BatteryMINDer had the intelligence to test my battery and warn me with a heads up – a simple yellow light!



# The Best Battery for You

If you enjoy checking the battery fluid, and servicing your battery with distilled water, then an unsealed battery is for you. If you want longer battery life, without needing to replace evaporated distilled water, then a Concorde sealed battery is just the ticket.

then a concorde sealed battery is just the ticket.	
Concorde Model and Certificate Notes	Concorde part number
M20, M20A, M20B, -20C, -20D, -20E, -	RG-35A (Replacing R-33) or
20F, M20G, M20J (S/N 24-0001 to 24-2999), M20K (S/N 25-0001 to 25-	99) RG-35AXC (Replacing R-35)
M20J, M20K, M20L, M20M, M20R, M20S, M20TN (2-models). (Please note certain 24V models may have	4V RG24- 11M (Replacing manifold battery)
fitment issues when attempting to install part no. RG	624 or
-15. Please contact Concorde for details).	RG24-15 (24V)



# Seven stages of charging

- Analyze: test and accept/reject battery
- 2. **Desulfate:** begins removal by dissolving harmful sulfate
- 3. **Soft start:** applies low current if battery tests low
- 4. **Bulk:** provides maximum output to charge to 85%
- 5. **Absorption:** provides low current to complete to 100%
- 6. **Test:** to determine if the battery needs further desulfation
- 7. **Maintenance:** maintains temperature-compensated full charge



- Charger-Maintainer-Desulfator
- 6 ft. AC cord, 6 ft. DC cord with quick connector (SAE)
- Auto-temp compensation sensor (installed)
- 2 ft. insulated battery clip cord set with quick connector and 15A replaceable fuse



Whenever I call BatterMINDer with a question, my impression is always that they really want to help. They have stellar customer service! You can contact them at 800.379.5579 or 631.423.8221

# **Robust Starts**

You won't be sorry if you add a BatteryMINDer to your aircraft. You will have a strong start each time you twist that key.



# 78878's Final Flight

#### by Richard Brown

Ok, that title is a bit of "click bait," but it is true. Rest assured that 78878 will fly again, it will just be with a new tail number. My wife has wanted to get the plane painted for a long time. Yes, you read that correctly, my wife has been

asking me to spend a healthy sum of money to paint a plane that looked pretty nice (from 20 feet away). I'm sure I have mentioned it before, but I think I have the best wife in the world. If there was ever any doubt, the plane painting experience should put that to rest. (3)



Following the birthday week palooza that I wrote about last month, it was time to drop the plane off at Art Craft in Santa Maria (KSMX). SMX is either a four-hour drive or about an hour flight, so I arranged for a friend to fly up and ferry me back. This was to ensure that my previously mentioned "best wife in the world" didn't have to spend eight hours in the car.

The night before, the forecast called for an IFR departure from Fullerton (KFUL) and arrival into KSMX. I filed an IFR flight plan, but I was hoping for a VFR flight so we could do a little formation flying enroute, me in my Mooney and my friend in his Harmon Rocket (with the power pulled way back).

When I looked at the briefing Saturday morning, I was happy to see that we would be able to get out of KFUL VFR, and although KSMX was still socked in, the TAF called for clear skies by 10:00 am. Our arrival time was 9:30 am and we figured there was a good chance it would be broken up enough to get in VFR. If not, we would get a pop-up IFR enroute.

The clouds over KFUL were scattered at 2,000 with some big holes to the east, so we launched into the air and turned for a right downwind departure. I was first off in my Mooney. My friend in his much faster Harmon Rocket followed. Climbing on the downwind, I was going up through a big hole in the clouds and leaving the top of KFUL's airspace when the Tower controller said, "Mooney 878, traffic at your six, catching up to you is that Rocket, has you in sight, frequency change approved, good day."

I responded, "Thanks for the help, 878. Good day." This was immediately followed by a frequency change from Tower to my friend in the Rocket.

"86 X-Ray, frequency change approved, you're indicating 40 knots faster than the Mooney, good day."

"Got him in sight, 86Xray."

On top of the clouds, I began a right turn towards the west and continued the climb up to 4,500', heading to the Special Flight Rules Area for the transition through the LAX Bravo. My friend passed below and to the left of me, and then he formed up behind me.

Leveling off at 4,500, I dialed it back to 2500 RPM and 22" manifold pressure.

Me: "Sorry you have to fly so slow."

Ken: "I'm down to twelve and a half inches of manifold pressure," came the laughing response on the radio.

On the other side of the Special Flight Rules, we formed up for a little formation and some photo ops. I set the GFC500 on altitude and heading so I could take some pictures and video. I grabbed a nice video of him breaking away off the left wing, but with only an eight second heads up, I missed getting him coming low off my left wing and pulling up for a barrel roll.





Page 14

Ken: "Here I come, get ready."

Eight seconds later, I heard Ken say, "I'm gonna roll it."

The camera under my wing captured him beginning a slight climb, but just after he began the roll, he was out of the frame. "That's awesome!" was my reply. After a little more time in formation for photos, Ken slid in behind me and said, "I've got you in my gunsights, I'm practicing."

I replied, "Too close for missiles, I'm switching to guns."

The weather on my tablet showed that KSMX was not breaking up as forecast. Over the San Marcus VOR, looking up the valley at the solid layer of clouds filling the valley below us, I called Santa Barbara Approach.



Me: "Santa Barbara Approach, Mooney 78878, have a request."

Approach: "Calling for a request, go ahead."

Me: "Mooney 78878, six-thousand five hundred over San Marcus VOR, like to get a pop-up IFR into Santa Maria. Looks like it's not clearing up yet."

Approach: "November 878, for now maintain VFR and squawk 0140."

Me: "Maintain VFR, 0410, 878." Approach: "Zero-one forty." Me: "Zero-one forty, 878."

Approach: "Mooney 878, radar contact as stated, altimeter 29.85, and if not already, change to my frequency 124.15, twenty-four fifteen."

Me: "29.85, and I'm on twenty-four fifteen, 878."

Approach: "November 8778, thank you, let me know when you pick up ATIS Zulu, maintain VFR and fly heading 280. Expect the ILS."

Me: "Maintain VFR, heading 280, and GPS only, any way to get the RNAV one-two?"

Approach: "November 878, let me know you have unintelligible"

I listened to the ATIS on my second radio and set it to receive on my PMA 450B audio panel, which pipes in radio one to my left ear and radio two to my right ear. It takes some practice, but you can focus on whichever incoming transmission you want, letting you hear the whole ATIS without it cutting out when another transmission comes in, as well as ensuring you don't miss a call intended for you.

The report was calm winds, seven miles visibility, and overcast at 700'. It's above my personal minimums for daytime IFR, and well above the approach minimums. For about the 4<sup>th</sup> time on this flight, I reviewed the approach plate. A number of heading changes, altitude step downs, and a controller change followed during the next segment of the flight.

Approach: "Mooney 878, did you want the RNAV or ILS?"

Me: "I'd like the RNAV one-two." Approach: "November 878, roger."

It had been a while, (14 minutes looking back at the video), since Approach said, "You can expect your IFR clearance in just a moment," and I didn't want to have my missing clearance lost in a controller shuffle so offered a reminder.

Me: "Approach, Mooney 878, we are still waiting on our actual clearance." (Why do pilots say "we" when there is nobody else in the plane?)

The next transmission was Approach clearing my friend for the approach into KSMX, then he came back with my clearance.

Approach: "Mooney 878, roger, cleared to Santa Maria Airport via fly present heading, descend and maintain 3,000."

Me: "Cleared to Santa Maria via present heading. Descend and maintain 3,000, 878."

When flying approaches, I talk to myself out loud – a lot. It helps me to keep my mind focused on the task at hand. I reviewed again verbally my power settings for the approach. They are on a placard in front of me on the panel but saying them out loud is just one more reinforcement of what is coming.

I did get a smile, reflecting back on the 40 knots of overtake at the beginning of the flight when Approach asked me to slow down. Granted, my friend was inside the FAF and had slowed for the approach, but I'll take it anyway.

Approach: "Mooney 878, looks like experimental did slow down, reduce speed 30 knots." Me: "Reducing speed, 878."

A Approach: "878, six miles from DEMFA, turn right heading zero-niner-zero, maintain three-thousand, correction, maintain two-thousand until established on final approach course, cleared RNAV one-two." Me: "Right heading zero-niner-zero, maintain two thousand 'til established on the RNAV, cleared RNAV one-two, 878."

I continued talking to myself, counting off the distance remaining to DEMFA (the final approach fix), along with the altitude remaining to reach the crossing altitude. Just before entering the clouds, I said, "All right, here we go." I was handed off to tower in time to hear my friend requesting taxi instructions to the paint shop. Once they were done talking, I checked in:

Me: "Santa Maria tower, Mooney 78878, RNAV one-two approach."

Tower: "Mooney 78878, Santa Maria Tower, runway one-two, cleared to land."

Me: "One-two, cleared to land, 878."

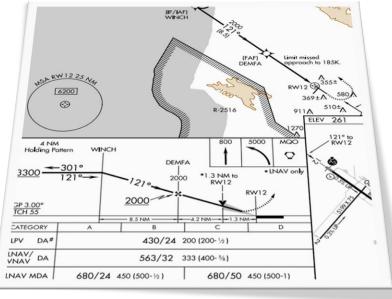
Tower: "Mooney 878, when able say tops."

Me: "Tops were right about twenty-two." (I know that's not the 'proper' way to read the altitude, but I was in the clouds, had been for a bit and she know exactly what I meant.)

bit, and she knew exactly what I meant.)

Tower: "Thank you."

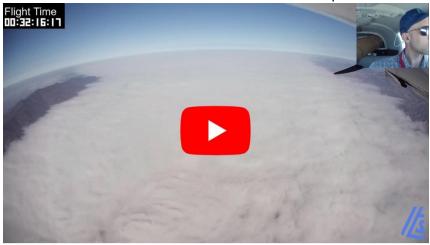
I continued verbalizing the distance remaining to the runway, along with my current altitude and altitude remaining, before the decision altitude of 430' MSL. With reported overcast at 700', I knew I should be breaking out about 900-1,000' MSL. Five minutes after entering the clouds at 2,200' MSL, I was at 1,300' MSL and had ground contact in my peripheral vision. A quick glance up revealed no runway, just clouds, and it was back on the instruments. Thirty seconds later, just after passing through 1,100', I



had the runway in sight and transitioned off my instruments to the view out the windshield. On the centerline, I landed at the end of the 1,000' marker, and that felt good.

After stopping in front of Art Craft and shutting down, I was relieved when I climbed out of my plane and saw the little blinking red light on the camera under my wing. Half-way through the flight I couldn't remember if I had set it to record and was hoping that I had captured the approach. The plane is slated for completion the first week of November, so stand by for a review of my Art Craft experience and the finished product in my December article.

As always, thank you for taking the time to read. If there are things you would like me to write about (or not write about), or if you just want to say hello, drop me an email at <a href="richard@intothesky.com">richard@intothesky.com</a>. If you're ever in Southern California and want to meet up let me know.



<< Click for a video of Pop-up clearance and the IFR Approach

Page 17





# Pilot Wings Leather Wallet and Passport Holder Set

Made from genuine leather and debossed with the Pilot Wings shield and the word Pilot, it is ideal for the fan of flight.



# **Pilot Wings Leather Shave Kit**











Aithre Shield USB 6.0 CO





**Detector** 



**Classic Leather Bomber Jacket (A-2)** 





# That's What I Do – I Fly – And I Know Things T-Shirt



"If I Was Flying Goose Would Still Be Alive" T-Shirt





**Aviation Cheat Codes Coffee Mug** 







"I'm a Pilot. So, While it's Possible That I Could be Wrong, it's Highly Unlikely"

T-Shirt







# **Personalized Wood Signs**







# **World Travel Adapter Kit**

QC 3.0 2 USB + 2 US Outlets, Surge Protection, Plugs for Europe, UK, China, Australia, Japan - Perfect for Laptop, Cell Phones, Cameras





# **Custom Portrait from Your Photo**

The artist will draw a custom yellow cartoon character portrait of one person as a Pilot.





# flyGIRL Ladies T-shirt





## Dibs on the Pilot Shirt





# Flight Gear iPad Backup Battery

Two 3-amp USB ports deliver enough power to charge multiple iPads at the same time while those iPads are being used by the pilots. Four total USB ports are available to charge your devices: three standard USB-A ports (like those found on computers and wall chargers), and one USB-C output port (like those found on iPad Pros).



2:43%

# **Garmin inReach Messenger**

LEARN MORE

The Messenger assures that home will always be closer than you think. Providing global two-way messaging and interactive SOS, it keeps you connected with friends and family even when you're out of cell coverage.



A great gift for your pilot. Get a custom built model of your exact Mooney.

A gift to remember forever.



**LEARN MORE** 

# **Keep These In Your Mooney**

#### 1) Cleaning Supplies



To keep your baggage compartment tidy, I recommend that you get a plastic storage container Tote (found at Walmart, Target, etc.) In this small tote, you

- Window Cleaning spray
- Aircraft cleaning spray
- Several microfiber towels



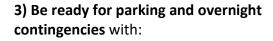




#### 2) Maintenance Kit

I recommend that you store your basic maintenance kit in a plastic storage container Tote or a small tool bag. What you store in this kit is entirely up to you. I recommend the following:

- Screwdriver with multiple heads
- **Pliers**
- Wrenches
- Leatherman
- Camlocks
- One or two gapped & serviceable spark plugs
- One quart of engine oil
- Disposable folding oil funnels
- **Fuel Testing Cup**



- **Travel Chocks**
- Tiedown straps
- Pitot tube cover







#### 4) Something to drink and eat

- Water
- **Nutrition bars**

Should you be faced with an off field landing emergency, your chances of survival will improve greatly.



#### 5) Tow Bar

A tow bar will help you park it on a "T" or move it around the self-serve fuel island.



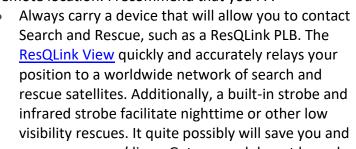
#### 6) Survival Kit and Personal Locator Beacon (PLB)

I know you are not planning to make an off field landing in the boondocks, but it could happen. To keep you alive while waiting for rescue, you can:

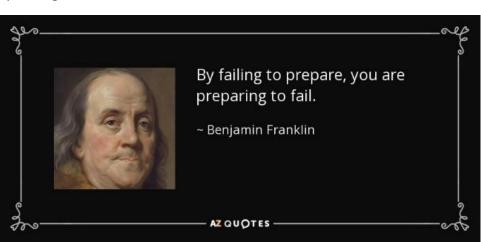
- Buy a pre-made survival kit or
- Make your own personalized portable survival kit.



If there is cellular service, you can call for help, but there is a good chance there won't find service in a remote location. I recommend that you . . .



your passengers' lives. Get one and do not leave home without it.



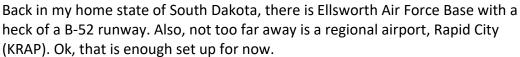






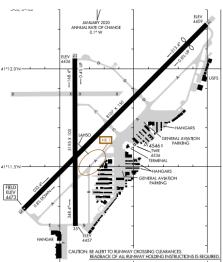
# Careful Not to Snicker

By Jerry Proctor





I am sure all of you have a story or three about flying into a new airport and having a heck of a time finding the airport, much less the active runway. Two years ago, I was flying into Ogden, UT (KOGD)and after about a 3-hour flight, it was a challenge for me. Ogden is just north of a highly active Hill Air Force Base, and the KOGD tower folks want you to stay north of Hill's airspace. So, I flew in from the west on a heading of 090°, (about the only way to get there), looking for KODG, while looking to my right, (south), to make sure I didn't encroach on Hill's airspace. In front of me I saw a good more easterly runway, but



as much as I wanted to land on it, tower said, "Cleared to land on RW 35." Where the heck is ... oh Dang! I saw RW 35 as the trees gave way to the runway. Chop the gas, speed brake out, full flaps, hard left turn, and then start the slip. I made it respectfully, but it was memorable. Finding the runway can be hard.

Now flash forward to a couple of weeks ago. I was getting ready for a trip from AZ to my home airport in South Dakota, Spearfish (KSPF). Just for good training, I wanted to do a practice approach into what would be my alternate, Rapid City. I took off in my Redbird TD 2 from Spearfish and headed for KRAP. Normally one would expect to use a NW facing runway as that is prevailing winds, but for a time saver, it was easier

to perform a RWY 14 approach.

| MACHINE | MACH

I always set the Redbird weather for no less than 7/8<sup>th</sup> cloud cover/visibility and ceilings of only 2-300 ft above DA/DH. All good.

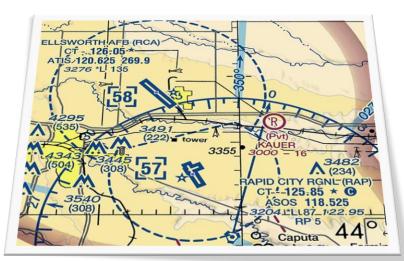
So, I was on the RNAV RWY 14 final approach course and things were just fine. Then, I got a glimpse of a gap in the clouds and whoa, there's the runway, all nicely lined up. It is a long runway and geez, the VASI is all white. How the heck did I get so high? Well, never mind that. I simply chopped the throttle, threw down the gear and extended full flaps, which sent me screaming down. (The Redbird is a complex 182).

Well, sure enough, this old ace pilot managed to land on the first 1/3rd of the runway. Well done!

Because an iPad can be connected to the Redbird, I looked down and .... looked down again. What? No wonder I was high. I had landed 10 miles short of KRAP. I was on runway 13 at Ellsworth AFB. If this were a real situation, the Air Force Security Police would be screaming down the runway and soon I would be spread eagle on the centerline of RW 13. OOPS!

### WHERE DID THE TITLE OF THIS ARTICLE COME FROM?

Because I grew up near Rapid City, I am always looking for aircraft news in western South Dakota. On 8 July 2016, a Delta A-320 with 130 passengers landed at Ellsworth AFB, just like I did, but their experience wasn't in the sim. When Delta landed at Ellsworth, it was at night; almost 9:00 pm.



No one was shot or hauled to the brig, but it had to be hard to wipe the blushing redness from the Captain's face. It is bad enough to land at the wrong airport, but when you take 130 passengers with you, it is darn

embarrassing! I did not snicker at the Delta crew in 2016, and I sure won't come close to it in the future.

So, what could I have done to avoid virtually joining the "I landed at the wrong airport" club?

- First, I was on glidepath for RWY 14 at KRAP. I should have stopped a second and said, "Hey, you are right on course, so that's not my runway."
- Second, I knew that moments ago, I was 12 miles from KRAP. With a G1000 there is a nearest window and KRAP would have shown 12 miles vs. Ellsworth at 2. I am sure there were additional indicators.
- I should not have transitioned to the "I can do it! I'm gonna land on that runway" mode. My focus was all outside. Who needs a G1000 when ya got the runway in sight?



# A FEW WORDS OF ADVICE

Always maintain situational awareness. In addition to your AHARS, keep looking at indicators of how far out you are from your airport.

I hope this keeps you off an Air Force Base, or a small island airport near Tampa International, or Taney airport, just 7 miles from Branson MO.

Be safe and land at the right airport and runway!



- 1) Normal VFR operations in Class D airspace with an operating control tower require the visibility and ceiling to be at least
- 1,000 feet and 1 mile.
- 1,000 feet and 3 miles.
- 2,500 feet and 3 miles.

Class D Weather Minimums

3 SM
Visibility

500'

The answer is 1,000 feet and 3 miles.

Since Class D is controlled airspace all the way to the surface, you can't fly VFR when the ceiling (a broken or overcast

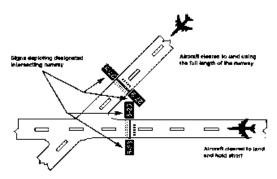


cloud layer) is less than 1000' AGL (FAR 91.155 (c)), or when the

visibility is less than 3 SM. When weather conditions are worse than 1000' and 3 SM, IFR aircraft could be flying instrument approach procedures and you would not have the ability to see-and-avoid them as they break out to land.

- 2) What is the minimum visibility for a pilot to receive a land and hold short (LAHSO) clearance?
- 3 nautical miles.
- 3 statute miles.
- 1 statute mile.

The answer is 3 statute miles. Having "basic" VFR weather conditions allows pilots to maintain visual contact with other aircraft and ground vehicle operations.



15°Fast

Isogonic Lines Show The Pattern of Magnetic Declination

- 3) The angular difference between true north and magnetic north is
- magnetic deviation.
- magnetic variation.
- compass acceleration error.

#### The answer is Magnetic Variation

- 4) The greatest vortex strength occurs when the generating aircraft is
- light, dirty, and fast.
- heavy, dirty, and fast.
- heavy, clean, and slow.

The answer is Heavy, clean and slow. See Advisory Circular 90-23G

- 5) Deviation error of the magnetic compass is caused by
- northerly turning error.
- certain metals and electrical systems within the aircraft.
- the difference in location of true north and magnetic north.

The answer is certain metals and electrical systems within the aircraft.



- 6) What document(s) must be in your personal possession or readily accessible in the aircraft while operating as pilot in command of an aircraft?
- Certificates showing accomplishment of a checkout in the aircraft and a current biennial flight review.
- A pilot certificate with an endorsement showing accomplishment of an annual flight review and a pilot logbook showing recency of experience.
- An appropriate pilot certificate and an appropriate current medical certificate if required.

The answer is an appropriate pilot certificate and an appropriate current medical certificate if required.

If flying under BasicMed, you will need your pilot certificate and a valid driver's license, (which also qualifies as a photo ID).





- 7) When are non-rechargeable batteries of an emergency locator transmitter (ELT) required to be replaced?
- Every 24 months.
- After 1 hour of cumulative use or when 50% of their useful life has expired, whichever comes first.
- At the time of each 100-hour or annual inspection.



The answer is after 1 hour of cumulative use or when 50% of their useful life has expired, whichever comes first.

The useful life expiration date is printed on each battery. An expiration date for replacing (or recharging) the battery must be legibly marked on the outside of the transmitter and entered in the aircraft maintenance record.

- 8) You replaced the ELT batteries in March 2021. Since then, your ELT has not been used or activated. The date on the all the batteries indicates MAR 2031.

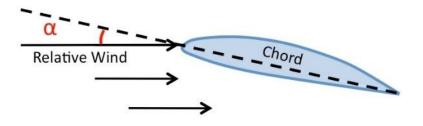
  When are the batteries due to be replaced?
- MAR 2031.
- MAR 2023.
- MAR 2026.

The answer is MAR 2026. The useful life in this case is 10 years, based on the MAR 2031 date on the batteries. 50% of 10 = 5 years.

- 9) The term "angle of attack" is defined as the angle between the
- chord line of the wing and the relative wind.
- airplane's longitudinal axis and that of the air striking the airfoil.
- airplane's center line and the relative wind.

The answer is the angle between the chord line of the wing and the relative wind.

 $\alpha$  = Angle of Attack



# Filing IFR to an Airport that does not have an Instrument Approach

Mike Jesch ATP, CFI





I overheard somebody telling a story about flying into Miegs Field in Chicago back in the day, which didn't have any IFR approaches. The comment was made that because it didn't have any IFR approaches, he couldn't file IFR to that airport.

# A Correction to that Statement



It is possible, and perfectly legal (it's 14CFR Part 91.167(b)(1) - but be careful, it's written in a negative form), to file IFR to an

airport without any instrument approaches. As far as flight planning goes, the only requirement is that you *must* designate an alternate airport, regardless of the weather conditions. So, that takes care of the strategic planning aspect of it, but it's a good idea to consider what you're going to do tactically once you get there:

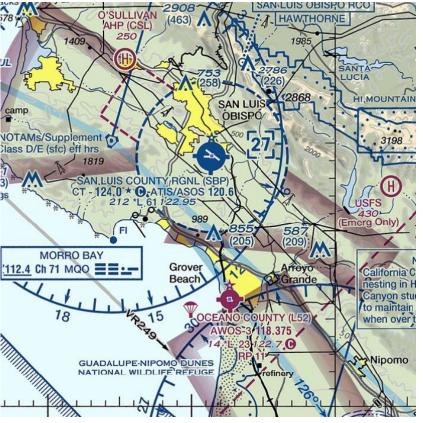
How are you going to get into the airport if the weather isn't so hot?

 $\checkmark$  In the heat of battle, this is not the time to devise your plan.

One option is to do what the pilot telling the story did. He filed to a nearby airport and hoped he could sneak in under the weather. As I recall, his method involved cancelling IFR and hoping to be able to get a Special VFR clearance to pick his way over to Miegs Field.

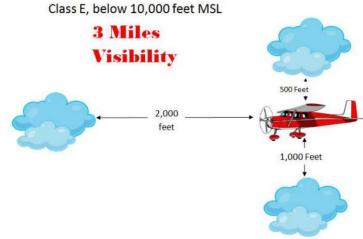


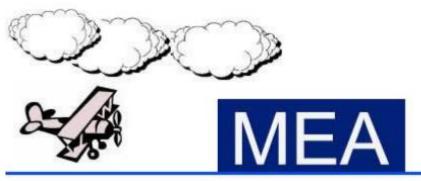
# **Cancelling IFR**



If you cancel prematurely, you can be in sort of a no-man's-land and that's a very sketchy, very dynamic, situation. An option I used one time flying into Oceano, CA (L52) was to execute the nearby ILS Runway 12 to Santa Maria (KSMX) and break off the approach once I got below the overcast and could find the airport visually. In cooking up that plan, I looked very carefully at the charts and identified obstacles and terrain that I needed to be aware of.

One danger of canceling IFR in this situation is that you must have legal VFR weather in order to do it. In other words, you most often have to be able to maintain at least 500 feet below and 2000 feet beside the clouds and have 3 miles visibility.





# **Another Option**

In a similar vein, it is also possible, and perfectly legal, to designate an airport as your alternate which doesn't have any approaches (this is <a href="mailto:14CFR Part 91.169(c)(2)">14CFR Part 91.169(c)(2)</a>). The requirement here is that you must be able to descend from the MEA to the airport in basic VFR weather.



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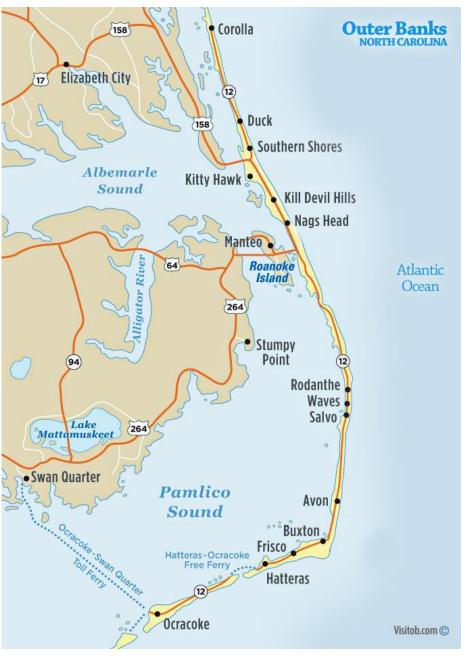
602-884-2111

<u>richard@thunderbirdaircraft.com</u> <u>www.thunderbirdaircraft.com</u>



# **My Dad's Aunt Olive**

by Terry Carraway



It was not too long a drive to his hometown, so every so often, we would drive down for the weekend to visit family and enjoy some great southern cooking.

My Dad is from a small town in Eastern North Carolina, not far from the southern end of the Outer Banks. He joined the Navy in World War II and served for two years. He got out and went to college for two years, then he rejoined the Navy as a NavCad (Naval Cadet). He spent two years as neither fish nor fowl as a Cadet while he learned to be an officer and learned to fly. He was commissioned and got his wings in 1950. He went on to serve a number of operational tours, mainly in Anti-Submarine

Warfare, flying the AD Skyraider, TBM/TBF Avenger, AF Guardian, and S-2 Tracker. He was also checked out in the T-34, T-28, T-33, SNJ (Navy T-6), SNB (Navy Beech 18), and R4D (Navy DC-3).



In 1966 he attended the Armed Forces Staff College in the area near Norfolk, Virginia.



Aunt Olive was his mother's sister; one of many. She had broken her hip and was limited to her room. Sometimes my Dad and I would sit in her room and keep her company. She was in her 80s and was just

happy to have us visit. She seldom said much but we figured out that she had been out of her hometown twice, and only one of those times was she out of the county.

One day we are talking about airplanes, and suddenly Aunt Olive said, "I saw an airplane once."

Now, this was in the 60s and airplanes were everywhere. My Dad's hometown is near Cherry Point Marine Air Station, so yes, she had seen an airplane.

Then she said, "It was when I was a young girl. We went up to the Outer Banks and saw an airplane." Now, remember, she was born in the 1880s and in the 1960s she was in her 80s. She added, "I was a teenager."

My Dad and I looked at each other in amazement. Aunt Olive had not only seen an airplane, but she had seen the ONLY airplane in existence at that time. She had seen the Wright Brother's 1903 Wright Flyer.



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Page 36

### Mooney Maintenance







Search Mooney's new website for Service Bulletins (SBs) and Click he

Service Instructions applicable to your

Mooney

Download and search LASAR's Airworthiness Directive Click here

( AD) Log – all models



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SERVICE BULLETIN



**SERVICE BULLETIN M20-345** Date: October 6, 2022

THIS BULLETIN DOES NOT CHANGE AIRCRAFT TYPE DESIGN

SUBJECT: Mooney Aircraft With Smooth Skin Elevators and Balance Weight Inspection

[ Chapter 27 - FLIGHT CONTROLS]

MODELS/SN AFFECTED:

All Mooney Models with smooth skin (non-beaded) elevators

TIME OF COMPLIANCE: Before Next Flight and in accordance with NOTE 1 and NOTE 2 below.

INTRODUCTION:

There are specific aircraft with smooth skin elevators, that utilized a hybrid material elevator balance weight. These weights (P/N 430018-1) are identified by the center plug running through the full width of the balance weight. During routine maintenance at an Authorized Mooney Service Center, the elevator balance weights were found to have developed galvanic corrosion, visible signs of the weight is cracked and displaced severely. There have been 6 separate instances of this anomaly in only the M20F model aircraft using this hybrid balance weight. Mooney has heard many occasions where used flight controls (from salvage yards) are used on other Mooney models: (ie: M20B, M20C, M20D, M20E, M20G). Engineering has determined that this will require an inspection and corrective action taken. The attached compliance card needs to be filled out and returned to Mooney International Corporation upon completion of this Service Bulletin M20-345...

**CLICK HERE** for the complete Service Bulletin



#### **Tom Rouch**







Send your questions for Tom to TheMooneyFlyer@gmail.com



Dear Tom, What maintenance things should Mooney owners check between annuals?



When I got this question, I was hesitant because at first, I was thinking that the answer was obvious. But then I decided, perhaps I could add to what I thought was obvious — which is, **do a complete pre-flight inspection per the book**. Check the oil, the tires, and walk around, inspecting for obvious damage. Here is what I would do at least every 90

days.

As you walk around the plane, get down under the belly and look for evidence of fluid leaks. Fuel will usually dry up, but may leave a stain. Fuel may also remain wet and obvious. Leaks should be checked by an A&P. However, we have what we call "weeps" that do not necessarily require grounding the plane. Next, check for hydraulic leaks, especially at the brakes. While there, check the tire pressures. This is very important. Also, check the wheel wells because a creature may have made a home there. Take some time and uncowl; at least the top cowl. Look for the obvious problems, such as leaks, broken wires, etc. Don't get carried away, but a looking at your plane when it is all apart during its Annual Inspection will help you recognize problems that don't look right.

I hesitate to recommend too much, but you should be aware of Service Bulletins, Advisories, and Airworthiness Directives that apply to your particular model. There are requirements (ADs) that are only required by flying hours, especially on the older models. These are required every 100 hours. I have seen many Mooneys that have come in for an Annual where this was not done – making the plane unairworthy.

The last thing I recommend is to learn what special requirements your plane has. They might not be from Mooney, but from a part manufacturer, such as Bendix Magnetos, that only apply to what is installed on your plane. I will not list that 100 hour only AD, since you should find that out for yourself. However, here's a hint: It does not apply to J models and newer.



I want to add something that just happened to me. I drive a 2005 GM car that I bought new. I took it to the dealer last month for an oil change and they refused to work on it because it was too old. Wow! If I had that attitude in my business, I would have nothing to work on. I'm sure glad my doctor doesn't take that attitude.













#### **Lightspeed launches new app for Delta Zulu headset**

October 4, 2022

Lightspeed Aviation has launched a new app called the <u>Lightspeed App</u> which pairs with the all-new <u>Delta Zulu headset</u>. This makes it easy to monitor carbon monoxide levels, create custom audio profiles, and record in-flight communications.

#### **Carbon monoxide monitoring**





While the headset includes the sensor and provides audio alerts by default, you can also use the Lightspeed App for more information (when the headset is paired via Bluetooth to your iPhone). On the Home tab you'll see a real-time ppm level, or you can dive into the details by tapping the View Statistics button. This brings up a graph of CO levels and temperature over the past hour. Finally, you can tap the Settings tab to adjust when and how you get audio alerts in the headset. For example, if you wanted to set the low threshold higher so you hear fewer nuisance alerts while you taxi with the window open, you can easily change that using the Carbon Monoxide alerts menu.

#### **Custom audio profiles - HearingEQity**

HearingEQity creates a custom audio profile for each pilot or passenger—ideal for anyone with moderate hearing loss. To use this, first find a quiet room and put on the headset. From the Equalizer tab, the app will walk you through a 12-frequency hearing test in each ear, just like you might take at an audiologist's office. The whole process takes about five minutes and is very intuitive. Once the test is complete, the app will store your custom profile, which can be turned on either in the app or by double tapping the center button on the Delta Zulu

control box. Sporty's tested experiencing long term HearingEQity is helpful but replacement for hearing

#### **Audio recording**

A third feature is brought over from the FlightLink and playback. Make sure your Delta Zulu is turned Bluetooth, then tap on the Recording tab and you'll button in the middle of the screen. Tap the button

START
A NEW RECORDING

this feature with pilots hearing loss.

not a complete

not a complete aids.

app: audio recording on and connected via see a big record and the app will start recording everything in the headset, including both intercom and ATC communications. You can touch on the timeline to play back a specific radio call or slide the stop button at the top of the screen to pause the recording. The app also saves previous recordings, so it's easy to find an older flight by tapping on the folder icon. The <u>Lightspeed App</u> is free app and available for iPad and iPhone running iOS 13 or later. (Not Android). At this time, it is only compatible with the <u>Delta Zulu</u> headset.



## **EPA Releases Proposed Finding on Leaded AvGas**

On Friday, October 7, the Environmental Protection Agency (EPA) released its proposed finding on leaded aviation fuel, triggering a response from the consortium of general aviation associations that have been working on the removal of lead from avgas with the FAA and industry partners. Under the

EAGLE (Eliminate Aviation Gasoline Lead Emissions) initiative, the collective has demonstrated in recent months its commitment to sunsetting 100LL in a safe, deliberate manner.

The <u>Proposed Endangerment Finding for Lead Emissions from Aircraft Engines that Operate on Leaded Fuel</u> does not call for any immediate ban on avgas containing lead. It's simply the initial step required for the agency to exercise its authority to "address this source of lead pollution," which is well known to the GA industry.

The EPA wraps its proposal around protecting children's health in particular, though it notes that the sources of airborne lead pollution in the U.S. are many—including leaded paint, contaminated soil, industrial emissions from battery recycling or metals processing, and the combustion of fuel or waste containing lead. The agency also notes that levels of airborne lead in the U.S. have dropped 99 percent since 1980, leaving aircraft using 100LL one of the only remaining sources.

"When it comes to our children the science is clear, exposure to lead can cause irreversible and life-long health effects," said EPA Administrator Michael S. Regan. "Aircraft that use leaded fuel are the dominant source of lead emissions to air in the country. Today's proposal is an important step forward as we work to reduce lead exposure and protect children's health."

The GA community was prepared for the release of the finding, and in previous reports had noted that it was certain to be announced by the end of 2022.

From a joint statement delivered by the Aircraft Owners and Pilots Association (AOPA), the consortium said, "It's important to note that today's [October 7<sup>th</sup>] EPA announcement in no way bans or mitigates the use or sale of 100-low lead (100LL) fuel at any of the nation's more than 5,000 public-use airports.

"The general aviation industry and the FAA remain committed to a safe and smart unleaded transition. Any ban of 100LL for piston-powered aircraft before an unleaded alternative is widely available poses a serious safety risk to pilots, carries economic consequences to thousands of local communities, and is a violation of current federal rules and regulations."

#### Swift and GAMI Fuels Coming into Market

The EAGLE initiative and the GA community have already seen significant progress in addressing the removal of lead from avgas. General Aviation Modifications, Inc., based in Oklahoma, <u>received FAA approval in September</u> for use of its 100-octane unleaded G100UL fuel in nearly all GA piston-engineand-airframe combinations. Now GAMI must move the fuel through the commercialization process, which is underway with distribution partners such as Avfuel.

<u>Swift Fuels' UL94 unleaded 94-octane fuel.</u> With distribution in California and expanding, the lower octane avgas can be used in piston engines with lower compression—roughly 66 percent of the fleet—and utilizing the Swift supplemental type certificate (STC) for the range of engines and airframes.

Also from the joint statement, the collective noted, "Moreover, progress is being made on unleaded fuels currently being evaluated by the FAA in its Piston Aviation Fuel Initiative program. Partnerships between Afton Chemical/Phillips 66 and Lyondell/VP Racing have each developed high-octane fuels as potential replacements for 100LL. Congress has provided more than \$40 million for this testing and evaluation effort."

# Basic Vec

## AOPA asks Canada's Minister of Transport to allow BasicMed Pilots to fly into Canada

Oct 20, 2022. The Aircraft Owners and Pilots Association and Canadian Owners and Pilots Association have sent a letter to the Federal Aviation Administration and asking them to allow US pilots to fly into Canada under BasicMed privileges, noting that the Bahamas, Mexico and Dominican Republic have already allowed this for several years.

#### AOPA files complaint with FAA on 100LL ban

Oct 21, 2022. The <u>Aircraft Owners and Pilots Association</u> (AOPA) filed a formal complaint with the <u>FAA</u> on Oct. 14, 2022, claiming the decision by officials in Santa Clara County, California, to ban the sale of 100LL causes a safety issue for pilots and violates federal regulations.

Santa Clara County officials <u>banned the sale of 100LL</u> at Reid-Hillview of Santa Clara County Airport and San Martin Airport starting Jan. 1, 2022.

Santa Clara County has received millions of dollars in federal funding, agreeing to federal grant assurances, "which requires Reid-Hillview to operate as a safe airport through 2031.

The latest filing follows an informal Part 13 complaint, which prompted the <u>FAA to investigate multiple</u> <u>potential violations</u> of grant assurances by Santa Clara County.

# FAA Reportedly Wants Smaller Telecoms to Stop Using 5G Around Airports



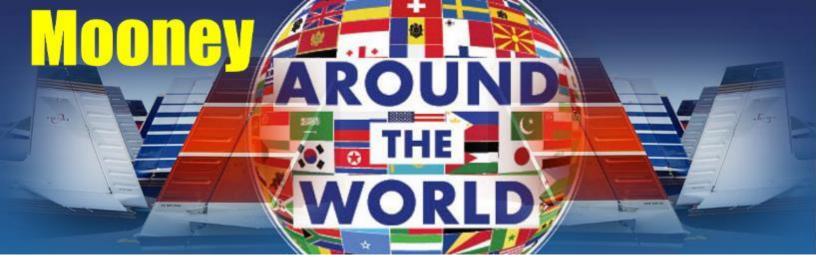
Oct 26, 2022: The Federal Communications Commission has overseen Verizon's and AT&T's careful deployment of 5G in the midband C-band frequency range to temporarily limit coverage around airports, giving airlines time to upgrade their aircraft to ensure there won't be any signal interference that could endanger landings in rough weather. The big telecoms, Verizon and AT&T, have voluntarily extended those 5G bans until July 2023.

Now the FAA has written to the National Telecommunications and Information Administration, though FCC chair Jessica Rosenworcel was copied, asking that 19 smaller telecoms and other organizations broadcasting in C-band be mandated to stop emitting signals in that range, as reported by Reuters. The letter, said to be written by FAA Administrator Billy Nolen, voiced concern for aviation safety "if the US government does not codify certain additional operating limits in the 5G C-band environment." If the NTIA chooses not to establish those mandates, "the FAA would be forced to take immediate steps to ensure the safety of the traveling public."

It's not clear whether the smaller telecoms and signal emitters would also be banned from C-band 5G until July 2023, nor what kind of action the FAA would take if the NTIA does not enact the requested mandate. The FCC deferred to the NTIA for comment. Neither the FAA nor NTIA responded to request for comment by time of publication.

The voluntary 5G bans that Verizon and AT&T agreed upon were the result of an <u>often acrimonious</u> <u>saga</u> when they were poised to activate their C-band 5G service in January. The FAA and aviation industry said that frequency range interfered with aircraft altimeters, which helped pilots land in low visibility and disruptive weather conditions.

The two big telecoms first agreed to <u>limit C-band 5G around airports</u> until June 2022 while airlines checked their fleets and upgraded equipment when necessary, and extended the ban again to next year. Earlier this month, aviation industry advocates petitioned the FCC to <u>make those restrictions permanent</u>.



Contact Dave at daveanruth@aol.com or (352) 343-3196, before coming to the restaurant, to have an accurate count. Events begin at 11:30  Nov 12: Sebring (KSEF)  Dec: 10: TBA
2022 Events 2022 is complete. Stand by for the 2023 Pilot Proficiency Events Sign Up at <a href="https://www.mooneysafety.com/ppp-registration/">https://www.mooneysafety.com/ppp-registration/</a>
Learn more at <a href="https://www.mooneysummit.com/">https://www.mooneysummit.com/</a>
Learn more at <a href="https://www.empoa.eu/index.php/en/">https://www.empoa.eu/index.php/en/</a>



# Bose Proflight Series 2 in ear headsets

By Dr. Henry Hochberg



I received a postcard from Bose, offering a 30 day trial of their ProFlight Series 2 in ear headset. If I didn't like it, I could return the ProFlight with no questions asked. So, I decided to order a pair. I wear hearing amplification devices, (newspeak for hearing aids). I have a bit of an unusual hearing loss from rock music and jet engines where I've lost a few of the high frequencies nearly completely, but I can hear the low frequencies perfectly.

My particular hearing loss makes for some difficulty when distinguishing a few of the consonants. For instance, from time to time, ATC will tell me, "2000" or "122.5" and I'll hear, "3000" or "132.5". I wondered if getting the sound closer to the ear drum might make those twos and threes more distinguishable. (I can't really afford to put ARINC in the Mooney).

It didn't quite work out that way, but the headset is still in my flight bag after 30 days, as I switch back and forth between the ProFlight and A20.

At first, I was disappointed because I didn't seem to notice any sound difference with my particular hearing loss, so I let them sit on the shelf and went back to the A20's. However, before they got too dusty, I did take them off the shelf. Recently, I tried them again, and for reasons I do not yet understand, on some days the sound is clearer than the A20's and other days it is not. I suspect the difference may be the radio in whichever airplane I happen to be in at the time, and maybe which transmitter ATC is using.

For the non-hearing impaired however, here's what you might like to know.

In the beginning, I thought in-ear headsets were only for quiet cockpits like airliners or your own personal 747. But that's definitely not the case. The noise suppression is outstanding and as good, if not better than the Bose A20's.



They come with three different sizes of ear silicon or rubberized earpieces, designed to fit most types of ears; Mr. Spock included. It may come as a shock to some of you, but humans are not symmetrical beings, and our left and right ear canals are not the same. So, while the three different sizes will seal most ears, one ear tends to fit better than the other. In my case my left earpiece will slide outward after ten minutes, so I am constantly pushing it back in for better ambient sound suppression. You can, for an additional charge in the hundreds of dollars, get a pair of customized molded earpieces for a

perfect fit. It's not such a big deal as the ambient noise suppression is still excellent. However, when I push it back in place, the noise reduction is quite noticeable.

One of the best features is how lightweight the headset is. Therea are only two small clasps to press against the side of your head just above your ears. On long distance flights, the comfort is definitely superior to probably any standard over the ear headset. As for noise cancelling and clarity, the seal and active noise reduction are as good, and generally might be slightly better than the A20's, which In my opinion were the best ANR headsets I tried when I bought them a few years ago.

I noticed there isn't any volume control on the unit itself, so adjusting that is a matter of using your panel mounted box or whatever you currently use to adjust sound level.

In addition, Bose has outstanding customer service for any problems or issues. I have used their Customer Service for the A20, but have not yet had any need for the ProFlight Series 2. This is a good headset for any Mooney or GA cockpit if you're willing to spend the money (\$1,045).



#### **Parts for Sale**

This Cowling was removed from a M20E and replaced with a M20J (201) cowling. The cowling is located at Fullerton Airport (KFUL) and is in excellent condition. Offers accepted.

Contact: Bernard Lee – <u>leebern@msn.com</u> (562-865-2547)

P/N 310309-501 P/N 310309-502

These fairings are new and priced @ \$280.00 each or \$525.00 for both. Priced elsewhere @ \$362.69 each.

Contact: Bernard Lee – <u>leebern@msn.com</u> (562-865-2547)

Bushing P/N 914007-003 - 2- Bushings in the original package @ \$35.00 each. Priced elsewhere @ \$45.00

each.



Bushing P/N 914007-005 1-Bushing in the original package @ \$59.00 1-Bushing loose @ \$50.00 Priced elsewhere @ \$69.00 each

Contact: Bernard Lee – <u>leebern@msn.com</u> (562-865-2547) Access Covers P/N 3000-901 (2-available) - 1-without nuts attached.

Make offer. Contact: Bernard Lee – <u>leebern@msn.com</u> (562-865-2547)



