

The Mooney Flyer

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

January 2024

2024
HAPPY NEW YEAR



Editors

Phil Corman | Jim Price

Contributors

Jerry Proctor | Tom Rouch | Richard Brown | Parvez Dara | Terry Carraway

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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.



Flights Plans and Flight Following

These are two very valuable services when going on a longer flight, a flight over remote terrain, a flight near or through busy airspace, etc.

They both offer protection but in different ways. When on a VFR flight, I actually prefer flight following and here are my thoughts.

With Flight Following, I simply call up the local ATC frequency with "Mooney 21530 VFR request." After getting a squawk code, I tell them that I'm an M20P/G and indicate my destination. Thereafter, I get traffic reports and sometimes vectors around traffic.



I love that if I have an emergency, I am already talking to ATC and can simply transmit, "ATC, Mooney 21530 has an emergency," and I am immediately in good hands.

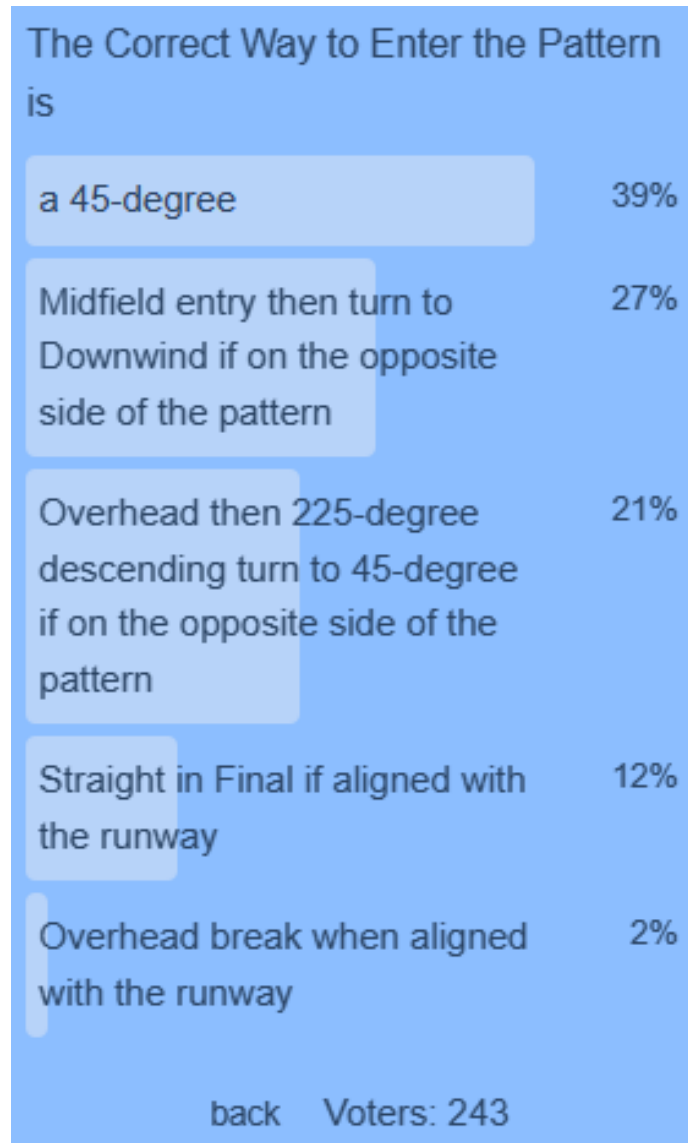
Filing a Flight Plan is more involved in that I have to put a plan together and then file it with FSS. With EFBs like ForeFlight, this is very easy, but I still have to call FSS and open my flight plan, and I have to remember to close it. I'm lazy and forgetful. Most of my flights have no emergency, so a flight plan is just insurance, albeit good insurance. With flight following, I never have to worry about closing it.

Christmas and New Year

From all of us at The Mooney Flyer, we hope you had a wonderful Christmas. We also hope for a fabulous New Year for you, your family and loved ones. There's so much strife and unrest in the world, exacerbated by social media, etc., but with our Mooneys and The Mooney Flyer, we only have the love of our Mooneys, the love of flying, and our camaraderie.



In the coming year, please consider writing an article about an experience you had, or knowledge you have. The Mooney Flyer is only as great as the articles that you contribute. Don't worry if you are not a good writer. We will guss it up and make it perfect. We just need your stories.



Next month's poll: "Why so Many Mooney Gear Ups"

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Letters to the

EDITOR

TheMooneyFlyer@gmail.com

As usual another GREAT Issue, Thank You!!

I saw the page showing the inside of the Mooney Mustang. That picture is from the sales literature sent by Mooney to prospective buyers. I know, for I have the original brochure along with the other Mooney Models and the MU-2.

I requested it from Mooney in 1969 or 1970 and it's still in the original mailer with postdate.

I want to write a short story on my M20G, but not sure if you would prefer the first time I saw her and bought her or a trip I took on October 13, 2022, from KLNC to KRYY. There the plane broke down and sadly enough, a year later, it is still there getting fixed.

Sincerely, **Kurtis S**

Editor Note: *Pick the story you'd like to submit and go for it. We would be honored.*

I truly enjoyed Richard Brown's "Tailwinds Both Ways" article. It reminded me of a funny story. We were 3 Mooneys flying in loose formation to a fly-in. I called on the radio and asked if the others were seeing a 16kt headwind. They indicated that they were. A few minutes later we heard 2 Cirrus on frequency not too far ahead of us heading in the opposite direction. They were saying that they were seeing a 15kt headwind also. Stranger winds aloft. Seems impossible and definitely interesting. Thanks for a great magazine.

What was the M20D?



Answer: The M20D was essentially an M20C with fixed landing gear and a fixed-pitch propeller. The D model had a



slightly lower price than the M20C and was intended as a basic or trainer model, which would have lower insurance costs. It could be upgraded with retractable landing gear, and in fact most of them were upgraded over the years. The M20D was produced from 1963 to 1966 with a total production of 141 units.

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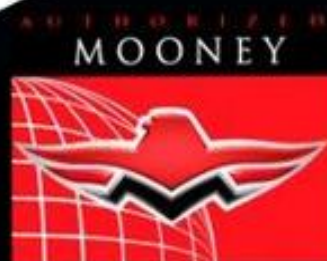
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To Fill or Not to Fill! That is the Question!

A question we get often is, "When should I fill my tanks?" It's not a simple answer and we will provide some of the Pros and Cons of when, and how much you should fill your tanks.



Phil Corman
Co-Editor

The First Question is When?

There are two primary choices. The first choice is to fill your tanks at the end of your flying for that day. The second choice is to fill your tanks just before you depart. So, which is better?

At the End of Your Flights

Topping off your tanks at the end of your flight(s) has two advantages. First, you are ready to depart for your next flight and secondly, you are drenching your sealant in 100LL, which purportedly lengthens the life of your sealant.

Resealing your tanks is a costly proposition, so extending the life of your tank sealant may be a concern for you.

Secondly, filling the tanks helps prevent moisture condensation by reducing the amount of air in the tanks. Moisture can form as the air in the tanks heats and cools. Having a full tank minimizes the likelihood of this occurring.

There are two disadvantages to topping off your tank at the end of your flight. First, you are putting more weight on your gear and the shock disks for a longer period of time between flights. The cost to replace the shock disks is now greater than ever with the costs ranging from about \$220 and about 8 hours to replace.

Secondly, another disadvantage to topping off at the end of your flights is that regardless of how long you fly the next time, you will be tankering a full load of 100LL.

At the Beginning of Your Flights

At this point, you know the duration of your flight and can put only as much 100LL as you need for that flight plus reserve. You won't be tankering excess fuel on the flight.

A second advantage is that you will not be loading your gear down with unnecessary fuel for a long period of time in your hangar or on the ramp.

A disadvantage is that your sealant may dry up over time and cause a leak/seep sooner, rather than later.

Also, you should let your fuel sit for a while before sumping your tanks as it takes some time for any water to make its way to the lower parts of your tanks.

Avoiding the Crash of Oblivion

When I was in pilot training at Vance AFB, OK, of the three runways, Tower controlled only the center runway. The tower controllers cannot oversee all the pilot training demands, so they had help from specially trained instructor pilots who worked from Runway Supervisory Units (RSUs), located at each end of the three runways. RSU duty Instructor pilots controlled the inside and outside runways.



The RSU controllers ensured there was aircraft separation and, most importantly, that each aircraft landing on each runway had the GEAR DOWN! In fact, if you ever fly into a joint use airfield, (shared by

the civilians and military), such as Yuma Marine Corps Air Station/Yuma International, the Marine tower controller will state, "Check gear down" before clearing you to land.



When I was a student, there was a funny story about a student pilot who landed gear up. He was not hurt, and after things calmed down, his commander asked him, "Didn't you hear the RSU controller yelling at you to put your gear down?"

"No, I couldn't hear the RSU controller because of the loud beeping in my ear."

Wouldn't it be wonderful if all airports had RSU controller Guardian Angels to watch over us? But all too often, a Mooney pilot becomes distracted and forgets to lower the landing gear. Pilots need to develop solid safeguards to prevent the crash of oblivion.

It happens far too often. A Mooney pilot becomes distracted and forgets to lower the landing gear. This happens because pilots have not developed solid safeguards to prevent the crash of oblivion.

In our December 2019 issue, contributor Wally Moran authored an article called "GUMPS is Not Enough." Since GUMPS alone is not working, we strongly suggest you make a placard with a list of about three or four items and put it in a spot where it's easy to see when looking forward.

In addition, Wally recommends that you physically touch this list/placard and say the items aloud on **downwind, base and final**. Now, if you would like to do the GUMPS check, feel free to do that as many times as you like, but complete your WRITTEN list/placard before landing. This placard takes so little time to print and install in your Mooney. It has helped me, and many other responsible Mooney pilots, prevent an ugly Gear Up Landing experience.



My M20K 252 Gear Placard

A few days after I had installed my Gear Placard, I read about a Mooney pilot that had recently landed with the gear up in Winslow, Arizona. It was hauled to the ramp and placed in front of the Winslow FBO. Someone saw the irony of the placard and he or she took a picture of the Mooney instrument panel. This photo found its way into the safety section of the December 2019 Arizona Pilots Association newsletter.



Don't depend on the Gear Warning Horn to save you. Here's a video of a pilot who was so busy talking that he failed to take a hint from the blaring gear warning horn.



The loud crunching noise should sicken you.



In 2005, when I bought my first Mooney, an M20C, I had allowed my CFI, CFII, and MEI to expire. I wanted to restore it, so I trained with Glen, a wonderful DPE (Designated Pilot Examiner). Then, when he felt I was ready, my last flight with Glen was my check ride to restore my certificates. I will always remember when we entered the downwind. Glen said, "Jim, promise me that when you are on downwind, you will lower the landing gear no later than midfield." I also promised that if I were flying a straight-in, I would lower the gear at no lower than at 500 feet AGL.

Take the Pledge – Raise your hand and repeat after me:

"Jim, I promise that I will always lower the gear no later than midfield. I also promise that when flying a straight in, I will always lower the gear no later than five hundred feet AGL.



"I will also install a placard on my instrument panel with:

- 'Gear – Down'
- 'Fuel – Fullest Tank'
- 'Prop & Mix – Full Forward'
- I will point to my placard, repeat the instructions **aloud** and confirm that I have the gear down on as I turn:
 - **DOWNWIND**
 - **BASE and**
 - **FINAL"**



Avoid Oblivion and Fly Safe, Jim



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You can register at <https://www.mooneysafety.com/ppp-registration/>

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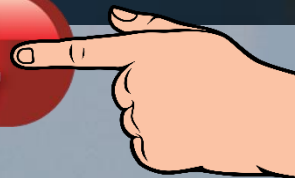
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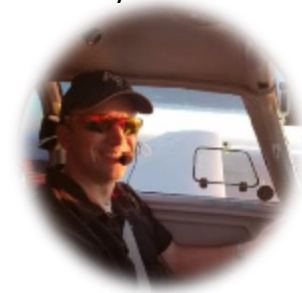
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Live to Fly Another Day

By Richard Brown



We were so close. We had flown over 650 miles from our departure airport with one fuel stop and we were only five miles from our destination. All we had to do was make the final turn. Instead, we turned around and headed for an alternate.

A short body Mooney, such as the C/D/E models are great for just about everything. You can go on local “flightseeing” trips and make the \$100 burger run. However, the long cross country is where it really excels. One of the biggest factors in my plane choice was finding something economical, (as economical as a private plane can be), and fast enough to get us to Arizona/Utah/Idaho from Southern California in a reasonable amount of time.

One of the biggest challenges on long cross-country flights, is flying through different weather systems along with the possibility of the weather changing while enroute. During the summer, the biggest concern when flying in the U S southwest mountains is convective activity and thunderstorms. You can avoid most of those by planning to fly in the morning. During the winter, the concern is icing, which can be an issue any time of the day.



Winter is here, and along with it, trips to our home in Pagosa Springs, Colorado (KPSO) and skiing at Wolf Creek. I started watching the extended forecast ten days out, comparing the changes each day as the trip approached to see if there were any storms, and if so, which direction they were trending. Last year my perfect record of flying to Pagosa was broken when I had to drive because of forecast storms. The storms were everything that was forecast. I was glad I decided to drive, and we skied three days in epic powder.

The typical trip is to arrive on Wednesday, ski Thursday through Saturday, and fly home Sunday. The forecast showed some possible snow on Wednesday, snow on Thursday, and sunny skies Friday through Sunday. I decided that it was worth flying Wednesday, even if we had to stop short at Durango, Colorado (KDRO) or Farmington, New Mexico (KFMN) and get a vehicle for the remainder of the trip. My concern is not only getting into KPSO, but also getting stuck there if a storm moves in. However, with days of forecast sunshine I was certain we would *NOT* get stuck.

The day before, my wife asked what time we needed to leave. She’s always flexible about departure times, knowing that no plan is set in stone. The evening before, the forecast was looking like some snow in the morning, tapering off late morning, and then a window of VFR from around noon until the evening.

I planned to leave in time to arrive between 1 and 2pm, allowing for a fuel stop at Williams, Arizona (KCMR) on the way. The forecast winds would allow us to fly straight through, arriving right at my minimum of ten gallons on board. However, knowing the possibility of changing visibility at Pagosa enroute, I wanted to stop and have an extra buffer of fuel.

Wednesday morning, using my laptop, I checked the weather briefing. It still showed the open arrival window from 1:00 pm until the evening, so we proceeded with our planned departure. The night before, I had filed both a VFR and IFR flight plan for the Fullerton (KFUL) to Williams (KCMR) leg with a forecast marine layer in the morning. The weather briefing in the morning showed that the marine layer would likely still be there at our departure time, so I reviewed the typical departure I get when leaving KFUL.

Arriving at the hangar, the marine layer had completely burned off. After loading up the plane, pre-flight, taxi and run-up, I called up ground.

Me: "Fullerton Ground, Mooney 1015 Echo, southeast runup with Lima, request taxi two-four."

Ground: "Mooney 1015 Echo, I have an IFR plan on file for you. Did you want that clearance?"

Me: "No, I thought we were going to have a marine layer, but it's clear."

Ground: "Roger, I'll cancel that plan, taxi two-four via Alpha."

Me: "Two-four via Alpha, thanks, 15 Echo."

The flight to Williams was the best kind of flight – smooth and uneventful. There were a few little bumps on the descent, but when you are descending from 9,500' to a pattern altitude of 7,700' it's a short descent. It was a typical turn on the ground, topping off both tanks, a visit to the restroom, and we were back in the air just over 30 minutes later. When you take off from a field elevation of 6,680', it's a quick climb to cruise and we were soon leaned out and on the final leg of the trip.

We flew past Sitgreaves Mountain with a light dusting of snow and Humphreys Peak, then across the Painted Desert, Chinle Valley and past Ship Rock, jutting up from the desert floor with its long spines stretching out to the south and west.



Passing Farmington off our right wing to the south, I could see Durango ahead to the left. Seventy plus miles in the distance I could see the San Juan Mountains on the far side of Pagosa jutting up into the overcast sky. At this point in the flight, with about 25 minutes left to go, I was feeling pretty good about getting into KPSO.



Surveying the skies ahead, I told my wife, "It's nice and clear out towards Durango, and you can see the mountains on the far, far side of Pagosa, so I'm not worried about getting in." Pagosa was off to our 10 o'clock position, and pointing to about one o'clock I said, "There are snow showers that are supposed to be coming this direction, which is why I wanted to get in around one or two o'clock. Later it's supposed to get worse, and earlier it was bad. When we took off *from* Williams, Pagosa had low IFR conditions because it was snowing with less than a mile visibility. The forecast showed that there was a four-to-five-hour window."

“My plan was to fly to the mouth of the canyon and, if everything was clear, and there was nothing moving in from the sides or anything else, we would go. If it was sketchy looking, we could just make a turn and go back to Durango or Farmington. We have lots of options, we have three hours of fuel, which is also why I wanted to stop in Williams. We had enough fuel to get to Pagosa, without stopping, but if we got there and had to turn around, we would get into my one-hour fuel reserve. I don’t want to get into my one-hour reserve.”

At this point we were 30 minutes from landing at KPSO, but in the winter, things can change quickly in the mountains. We were about thirty-five miles from the mouth of the canyon which would leave us with a 30-mile flight up the canyon to the airport.

I put my second radio on the AWOS for KPSO and seven minutes later we were close enough to pick up the weather.

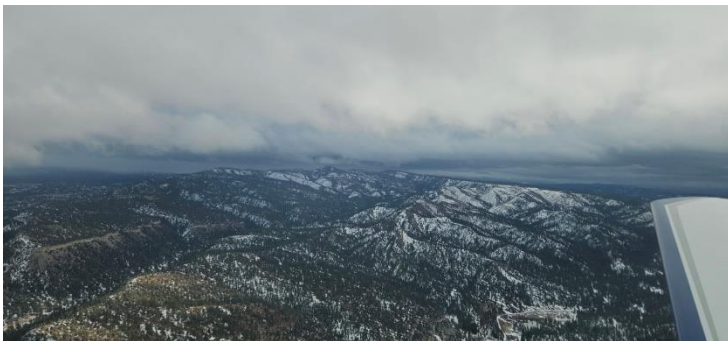
At 2059Z, Pagosa’s AWOS reported calm winds, visibility **five**, unknown precipitation, ceiling **1,500** broken, **2,000’** overcast.

With a field elevation of 7,663’, we wouldn’t need to descend much from our cruising altitude of 9,500’ to stay below that broken layer, so we pressed onward. Six minutes later, at 2105Z we were turning up the canyon and I listened to the weather again. The visibility was now **four**, unknown precipitation, ceiling had lowered a bit to **1,300’** broken and **2,000’** overcast.

Completely focused ahead, I kept the Unicom frequency on radio one, with the AWOS playing in a continual loop on radio two.

One minute later, at 2106Z, AWOS reported calm winds, visibility **four**, unknown precipitation, **1,000’** scattered, **1,600’** overcast and **2,000’** overcast.

This was my ninth trip up the canyon to KPSO and I am very familiar with all the landmarks. I kept to the right side of the canyon knowing that if I needed to turn around, a left turn would keep me away from all the rocks at my current altitude. Still, Pagosa’s AWOS played constantly in my ear.



A minute later, at 2107Z, AWOS reported the visibility had dropped from four to **three**, unknown precipitation, **700’** scattered, and the ceiling was now **1,300’** broken and **1,900’** overcast.

If you’ve never flown in or around snow, it can lure you in and take you by surprise. I was at traffic pattern altitude, cruising along at 8,700’ and knew that with the scattered layer I might need to go-around a little cloud here or there. However, with the snow up ahead there was no definition to the clouds like there would be if you were flying around a scattered layer on a relatively clear day.

Six miles and two minutes later, I heard, “Visibility **three**, light snow, 700’ scattered, ceiling **1,300’** broken, **1,900’** overcast.”

If it stayed at three miles, I would be comfortable landing, but if the reported visibility dropped below three miles I would turn around. I was losing hope that we would make it in. I made a radio call that I was eight miles to the southwest, inbound, straight in, runway one, Pagosa Springs.

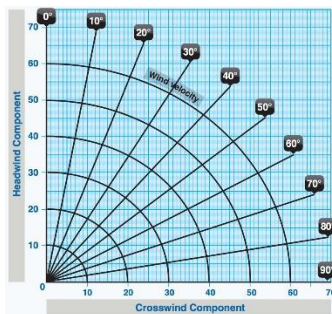
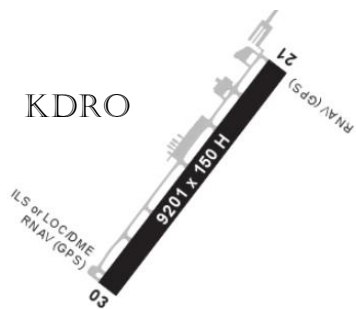


After two more cycles of the weather, the decision was made when Pagosa’s AWOS-3 reported calm winds, **visibility two, with light snow**. I rolled into a gentle left bank and back out down the canyon. I had put the visual approach into the GPS NAV and we were almost on the centerline, only five miles from the airport. I was pleased that I had given myself a hard line and when the visibility dropped below that line, without debating it internally, I turned around.

I knew that the folks in the FBO listen to the radio, and I didn’t want them wondering if we had gone into the ground somewhere. So, I made a last call on the Pagosa Springs UNICOM that we are going to head back out and wait for things to clear.

Back outside the mouth of the canyon, I powered back and began circling so we could stay in radio range, listening to the one-minute weather. The radar showed that the snow should blow through quickly and knowing that the ADS-B weather is delayed, I thought we might get in after about 15 minutes.

Fourteen minutes later, as the visibility went back and forth between 1 ¼ mile and ¾ mile, I gave up. I looked on my tablet and saw a Skywest flight on final for Durango. That would be the flight that my friend was on, scheduled to land at 14:45 Colorado time. I sent him a text that we were going to be landing at Durango to see if we could hitch a ride with him to Pagosa. I then pointed the plane to Durango and dialed their AWOS. I learned that the 2132Z winds were 100° at 9, with peak gusts of 20. The visibility was 10 miles, and the clouds were broken at 4,300’.



It would be a sporty landing with a crosswind component of about eight and a crosswind gust factor of about 19. We crossed over mid-field before turning onto a left downwind for runway three and entering the traffic pattern. Coming down final, I transitioned from a crab to a slip with the rudder mashed all the way to the floor and the right wing very low, just centerline.

The right main, followed by the left main touched the ground. As the nose wheel settled onto the runway, I was proud of myself. It was as smooth as any landing that I have greased with a wind coming straight down the runway.



I said, “Oh, wow, not bad for a . . .”

“Side slipper,” my wife interjected.

“Holy cow, I had the rudder stomped all the way to the ground,” I said, finishing my sentence.

She replied, “I had to close my eyes.”

I replied, “Oh, you should have kept them open, that was beautiful.”

Her response was, “I was like, that’s going to happen. I don’t want to know how.”



We taxied to the FBO and told them we would be there for a few days, coming back either Friday or Saturday to pick up the plane. My friend re-routed his Uber driver to pick us up and we had a nice drive to Pagosa.

Thursday, it snowed off and on most of the day and we skied some good powder. Friday was a bluebird day without a cloud in the sky. We stopped skiing in the early afternoon to have time to drive to Durango so that I could get the plane back to KPSO before sundown. As we were driving along, looking up at the clear blue skies, I commented to my wife, "They say the accident investigation always happens under clear skies."



"What was that?" she asked, only half listening to what I had said.

I said, "Every time someone pushes it into the weather and crashes, it seems that the accident investigation always happens under clear blue skies." She dropped me off at the FBO and began the drive back while I went through pre-flight, waited what seemed like forever for the engine to warm-up, and made the 15-minute flight from KDRO to KPSO. As I flew along with unlimited visibility, I reflected again upon my decision two days earlier to draw a hard line and not cross over it. I was grateful I hadn't pushed on and possibly become a statistic.



By the time I had the plane tied down, the engine heater plugged in, and walked over to the FBO, my wife was pulling into the parking lot.



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 richard@intothesky.com. If you're ever in Southern California and want to meet up let me know.



What was the M20C?

Answer: Introduced in 1962, the M20C was a refined version of the M20B which had been introduced in 1961.

How many M20Cs were sold in 1962?

Answer: 336

Air Hunger

By Parvez Dara, MD ATP, Master CFII, and President, Mooney Safety Foundation



There is a gulf between comprehension and confusion, and it is wide in a functioning mind. However, circumstances do narrow the divide. One such mechanism is limited oxygen availability. The brain takes a large amount of blood flow (hence oxygen) to keep those neurons (brain cells) happy and on alert. But trifle with the oxygen supply in any way and the three pounds of flesh becomes a blubbering mass of incomprehension.

A kind of urgency occurs and colors fade to a drab grey. The numbers jumble together, and a cataract of mist falls on thought and action. The less dense air exacts a compromise.

Hypoxia or hypoxemia synonyms are the bane of high altitude flying in an un-pressurized aircraft. For that matter, flying from the United States to Europe in a pressurized airliner has similar effects. The cabin pressure for an aircraft at 37,000 feet is still around 8,000 feet. Five to six hours of that adventure easily makes one groggy and tired upon arrival.

Flying above 8,000 feet for any length of time creates a form of relative hypoxia where the body’s compensatory mechanism fails to provide the necessary blood supply to feed the cells with the oxygen.

The four main etiologies of Hypoxia are:

1. Hypoxic Hypoxia: Low Oxygen partial Pressure, (V/Q mismatch)
2. Hypemic Hypoxia: Due to Anemia, (less Hemoglobin for saturation)
3. Stagnant Hypoxia: As in Congestive Heart Failure, (sluggish blood flow)
4. Histotoxic Hypoxia: Alcohol, Drugs, Cyanide, Carbon Monoxide

Several years ago, I did an experiment with a willing 22-year-old CFI sitting right seat in my turbocharged Mooney Aircraft (M20M). The plan was to fly all the way to 17,500 feet while measuring various physiological parameters, such as Heart Rate, Blood Pressure, Respiratory Rate, and Pulse Ox. and I was the pilot and therefore the placebo while the younger fellow was the consenting study subject. Methodology: A cuff BP unit, a Pulse Oximeter and Tactile pulse rate evaluation.

Table 1. Subject’s Baseline Values at different altitudes:

ALTITUDE (FEET)	HEART RATE	BLOOD PRESSURE	RESPIRATORY RATE	PULSE OX
Sea Level	68	118/68	13	99
4,500	70	120/70	13	98
6,500	70	122/72	14	96
10,500	79	130/76	15	92
12,500	82	130/80	16	89
14,500	88	136/84	18	86
16,500	90	140/86	20	82



From the table it is easy to see the compensatory mechanisms at play, starting at 6,500 feet, the rise of the Heart Rate, Blood Pressure and Respiratory Rate. The Pulse Oxygen level is diminished only slightly as the body’s internal system compensates. At 16,500 feet he felt tired and groggy, and he had to have help (minimally) with his oxygen mask.

Chamber Rides are an excellent way to determine one’s personal physiological manifestation of hypoxia. I took two Chamber rides. One was at Joint Base Andrews and the other was at Oklahoma City. The second one was for confirmation of the findings from the first. I learned that my vision turns a light blue color at around 17,000 feet. Usually, the symptoms once experienced are similar. They may vary only in intensity and perhaps in different order, but individually remain constant. Can you imagine spending two minutes to add up $234 + 345 = ???$... and still getting it wrong? I couldn’t do it at 18,000 feet. You might sometimes hear pilots showing a bit of dyslexic or garbled communication in repeating the ATC instructions. Well, there might be more to it than dyslexia. ATC is aware, and the controller’s concern increases if he or she spots such physiologic anomalies. By the way, The FAA Hangar during AirVenture at Oshkosh, WI now provides these chamber rides for free.

A simplified physiological explanation suggests that the Atmospheric Oxygen is around 20.93% of the air we breathe in at sea level and at 14.7 lbs./sq inch or 1013.25 millibar of atmospheric pressure. If we fly at 18,000 feet, that pressure is halved. As the density altitude decreases, the molecules of air are fewer and widely scattered. The Relative oxygen partial pressure is reduced to 10.5% or roughly half that at sea level. We can turbocharge the aircraft to go to that altitude without hesitation, but without cabin pressurization to force the air molecules together and keep the partial pressure of oxygen at 20.93%, we suffer the physiological consequences. As altitude increases, the molecules of oxygen get farther apart and exert less pressure per square inch. Although the percentage of oxygen never changes, the partial pressure gets lower and the diffusion of gases in the lungs suffer due to loss of gradient and thus, efficiency.

TABLE 2. Explains the pressure differential across the Respiratory Tree:

LOCATION	PARTIAL PRESSURE OXYGEN	PARTIAL PRESSURE CO2
Air (760mm Hg)	$760 \times .21 = 159\text{mmHg}$	$760 \times 0.0004 = 0.3\text{mmHg}$
Alveoli	104 mmHg	35 mmHg
Artery	95-100 mmHg	50 mmHg
Vein	45-50 mmHg	50 mmHg
Capillaries	20-40 mmHg	50 mmHg

As the breathed air gets deeper through the respiratory tract, the partial pressure decreases due to humidification and the partial pressure of water vapor, until it reaches the cell, its organelle and the Mitochondria (the energy factory of every cell), where the pressure is 7.5-11.5 mmHg. Any minor fluctuation at this level leads to cellular dysfunction, (regardless of the organ the cell belongs to).

What are the consequences, you might ask? There are plenty



BRAIN: From light headedness, to dizziness, to weakness, to lethargy, to confusion, limited cognition, all the way to seizure. (I witnessed a short one in the chamber).



HEART: This is also victim to hypoxia, should there be compromised blood vessels for the pump itself. Any arteriosclerotic narrowing of the arteries added to more stress put upon this organ, can lead to myocardial injury.



EYE: This is of great concern. Lower oxygen levels lead to decreased function of the rods in the eyes. Both the Cones (six million of them) and the Rods (130 million) develop a higher threshold in response to light. Thus, clear vision (acuity) weakens, and night vision is drastically reduced. If you take a chamber ride, it becomes obvious around FL180 that without oxygen, color is drab and greyish (or bluish). Add the Oxygen via a mask and suddenly vivid colors flood the vision.

Hypoxia is like a slow frog boil. It is incipient. It is unalarming and can put anyone to sleep. There are several reports of unpressurized aircraft being lost due to kinked oxygen hoses and the pilots falling prey to hypoxia. One such case was a pilot from Michigan flying his turbocharged Mooney aircraft to Atlantic City at FL220. His oxygen system malfunctioned, and the autopilot ditched the aircraft in the Atlantic Ocean where he perished. Another physician from Oklahoma fell victim to hypoxia in 2018. Hypoxia dematerialized his cognition into a deep sleep and the autopilot flew him and his Cirrus Aircraft into the Gulf of Mexico. There is also the famous depressurization of a Lear Jet at 41,000 feet. Famous golfer Payne Stewart and five others perished in a South Dakota field.

Oxygen delivery in an unpressurized cabin of a general aviation aircraft can be installed (STC) in the aircraft or one can carry an oxygen tank and cannulas. Several companies now have On-Demand oxygen flow, reducing oxygen loss due to continuous flow. Additionally, several Oxygen concentrators are available that give reasonable protection for the pilot up to 17,000 feet.

Extreme precaution must be exercised when flying at or above 15,000 feet by constantly checking the flow of oxygen, integrity of the cannulas and the pulse oxygen levels.

RULES for SAFE FLYING:

1. Use Oxygen above 8,000 feet during the day (prolonged flight) and above 5,000 feet at nighttime to keep your Rods nourished.
2. Periodically check your equipment in flight for kinks in the tubing.
3. Check Regulator.
4. Check Flow indicator.
5. Slow and deep breathing to prevent hyperventilation and Carbon Dioxide blow out.
6. If the Oxygen system is depleted . . . Land and recharge.

<https://www.mooneysafety.com/>



Potholes in the Sky

I'm pretty sure that nobody enjoys turbulence while flying. But how our Mooneys handle turbulence is #41 for "Why I love my Mooney". Mooneys ride turbulence better than any other single engine GA airplane that I know of.



It might be due to the high wing loading or some other aerodynamic quality. But the fact remains, Mooneys give a smoother ride.

I remember one afternoon, descending from the south into Concord CA (KCCR). I was VFR and using flight following, which is always wise to do near San Francisco's Class B. I heard a Piper call NorCal and report SEVERE turbulence. Yikes! Soon thereafter, NorCal called me and asked for my ride report. I responded, "Constant Light with occasional moderate." We were in the same air. Love my Mooney.

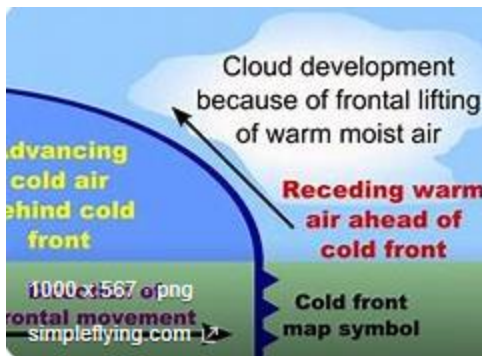
Types of Turbulence

Thermal Turbulence

The first type of turbulence that we usually encounter, especially in the western United States, is Thermal Turbulence. As the surface heats up, the air rises and at the same time the air sinks nearby, causing up/down turbulence. This is why many of us only fly over hot areas in the morning before too much warming occurs.

Frontal Turbulence

Like thermal turbulence, frontal turbulence is caused by the lifting of warm air. This usually occurs with a Cold Front as the cooler air blows in under the warmer air, lifting it up and causing turbulence. The faster the cold front, the more severe the turbulence.



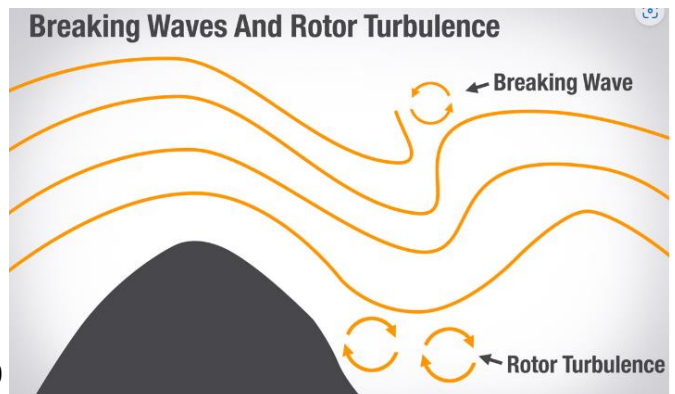
Mechanical Turbulence

We all know that moving air flows very similar to a river. If the river has a flat bottom, then it tends to flow more smoothly. But add obstructions like rocks and trees, and the river becomes quite turbulent. Likewise in the sky, as air hits obstructions such as hills,

mountains, buildings, etc., the airflow is disrupted and becomes turbulent. This is mechanical turbulence.

Mountain Waves

As air flows over the tops of mountains and travels down the leeward side, a standing mountain wave is formed, and air currents oscillate between altitudes. Mountain waves and turbulence can extend for hundreds of miles downwind of the mountain range.



Thunderstorm Turbulence

For me, this is the primary type of turbulence I will always avoid. Thunderstorm turbulence can easily extend beyond the precipitation by 20 miles, so it is wise to give thunderstorms that radius of avoidance.

Thunderstorms are characterized by strong updrafts and downdrafts that can easily hit 1,500 fpm up and 1,500 fpm down. That's the kind of turbulence that can wreak havoc.

Temperature Inversion Turbulence

This is usually much less severe than other forms of turbulence. Usually, a temperature inversion results in a stable atmosphere, but the boundary between the warm and cold air can cause turbulence. Therefore, you are most likely to encounter it during your climbout or approach.

Clear Air Turbulence

Most of the time this will be at higher altitudes because the jet stream is the usual culprit. You'll get knocked around in clear air turbulence at the boundaries of the jet stream.

So How Can You Avoid or Mitigate Turbulence

In your Mooney there are two easy steps you can take if you encounter turbulence. First, slow to V_a (Maneuvering speed).

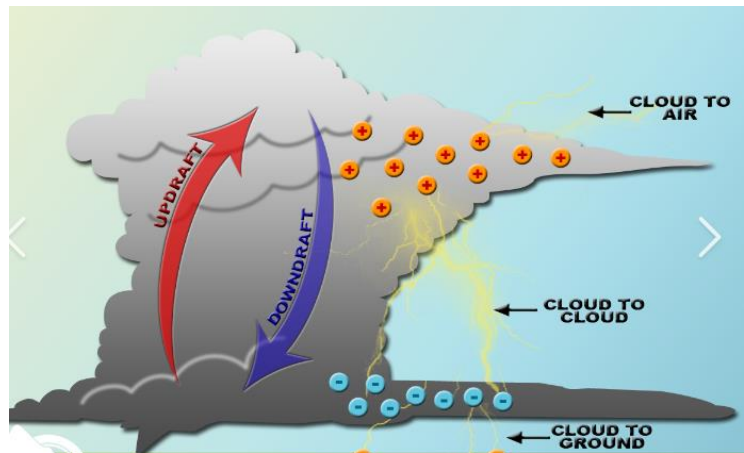
Second, if you have speed brakes, deploy them. You will thank me later.

If you are flying over mountains, check the winds aloft at the peaks of the mountains. If those winds are 20 knots or more, consider flying around the mountains or flying another day.

Another technique you can employ to avoid turbulence is to look at the winds aloft. If the speeds and directions are changing rapidly you can expect turbulence. If this happens near the surface, beware of wind shear.

Of course, AIRMETs and SIGMETs are good things to check for turbulence, but in practice, I have found that PIREPs are more valuable. We have flown dozens of flights where there were no AIRMETs for turbulence, nevertheless, we rocked and rolled for hours. The opposite has also happened. So, look for PIREPs.

We hope to have provided you with methods to avoid turbulence, and if you encounter turbulence, methods to mitigate its effects.



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US AIRWAYS 1549



**. . . not a Horrible
Warning**



3 Ways To Check TFRs Before Your Next Flight




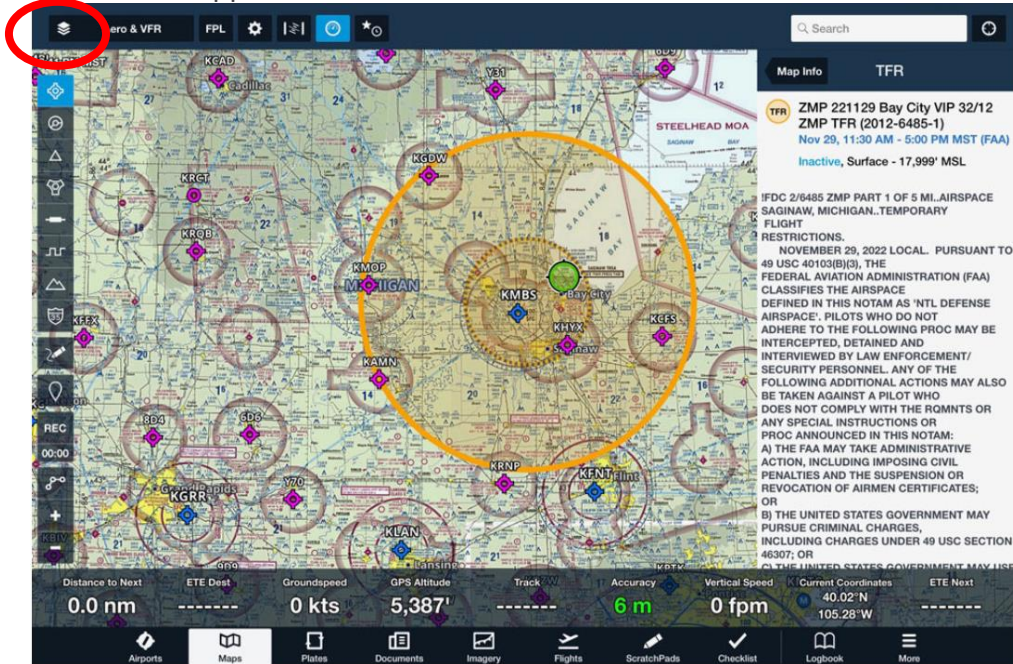
Jim Price
Co-Editor

1) ForeFlight



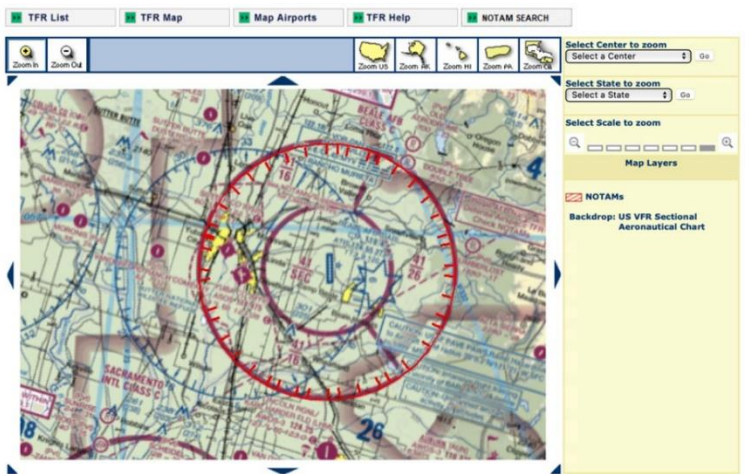
[ForeFlight](#) allows you to overlay TFR information on their mobile app, as well as their website. Simply

go to the map and make sure that TFRs are selected as one of the layers . This symbol can be found in the upper-left-hand corner.



2) FAA's TFR Map

The FAA's [TFR Map](#) allows you to locate TFRs in the vicinity of your planned route of flight. By selecting the center controlling agency or the state you plan to fly in, you can focus on specific TFRs. Scroll down and the site will display a list of TFRs in the area with their dimensions, description, and when the TFR is active.

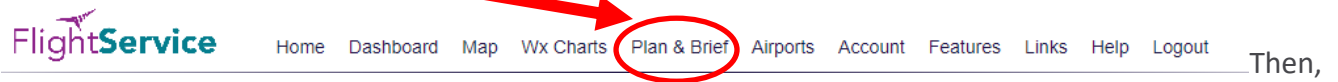


FlightService 3) Leidos

There are two ways you can learn about the TFRs located on your route of flight:

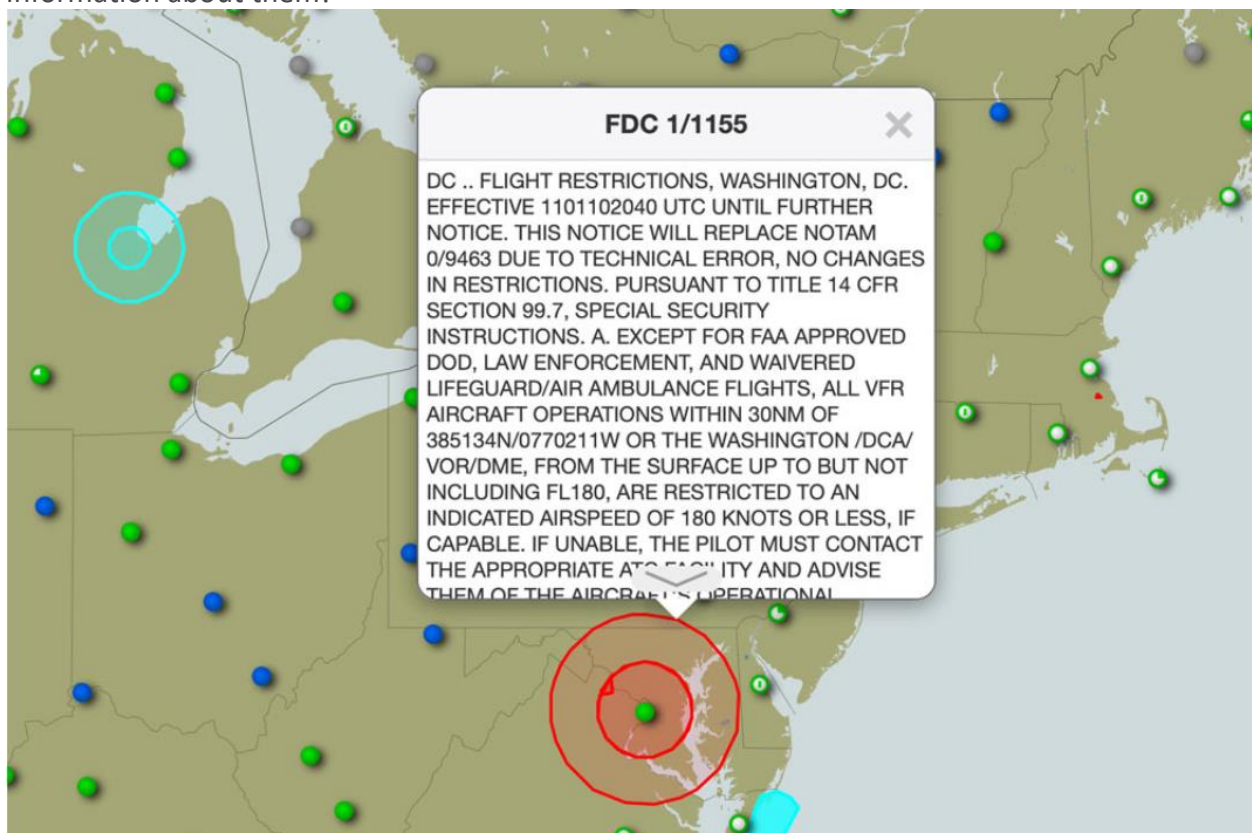
- Get a Leidos weather briefing
- View the Leidos interactive map.

To get a [weather briefing](#) through Leidos' services, you will need to create an account. Navigate to "Plan & Brief" at the top menu.



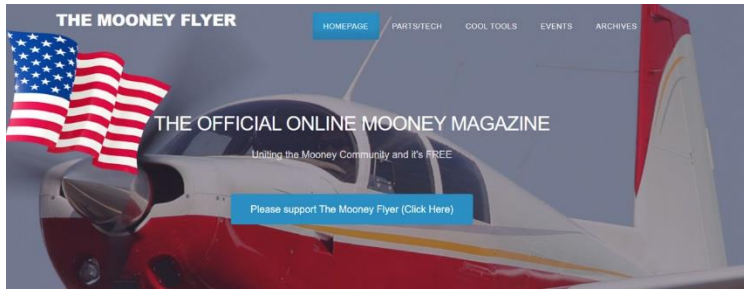
Then, fill out all the required information, and generate the weather briefing. Near the end of the briefing, there will be a discussion about NOTAMs. Look under "FDC NOTAMs" to find information about TFRs along your route of flight.

There is a second way to visually see where TFRs are located. When on the [interactive map](#), make sure that TFRs are selected in the upper-right-hand corner. Click on the depicted TFRs to learn more information about them!



Fly Safe,

Jim



January 2024



IFR Ready

- 1) As you prepare for an IFR cross country, you dutifully check your logbook to make sure you've logged enough approaches to meet currency requirements. How many do you need to log in the preceding 6 months?
 - a. 3 approaches
 - b. 4 approaches
 - c. 5 approaches
 - d. 6 approaches

The answer is D, 6 approaches. According to 61.57(c)(1), you need to log 6 instrument approaches, holding procedures, and intercepting and tracking courses with navigational electronic systems.

- 2) You've determined that you logged enough approaches to go flying, but you'll land at your destination at night, and you're not night landing current. You're also carrying passengers. Can you take the flight?
 - a. Yes
 - b. No

Answer is B, No. Regardless of instrument currency, you still need the landing currency outlined in 61.57



- 3) If you're completing your instrument experience tasks (approaches, holding, etc.) in an airplane, when do you need to perform them?
 - a. At night
 - b. Daytime
 - c. Doesn't matter

Answer is C. It doesn't matter. You can complete your instrument experience day or night.

- 4) Which of these instruments does your plane NOT need for an IFR flight?
 - a. Engine Oil Pressure
 - b. Magnetic Compass
 - c. Fuel Gauge for each tank
 - d. Vertical Velocity Indicator (VVI)
 - e. Slip/Skid Indicator

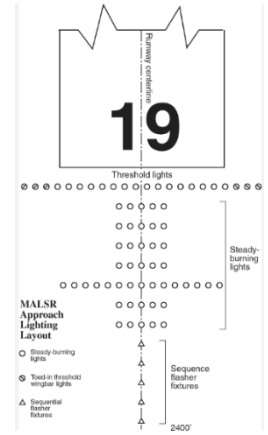
The Answer is D, the VVI. According to FAR 91.205, you'll need everything listed here except a vertical speed indicator.



5) You're flying a VOR non-precision approach to a runway that has a (MALSR) approach lighting system, (Medium Intensity Approach Lighting System with Runway Alignment Indicator Lights). You're at the MDA, and you see the approach lights, but you do NOT see the runway. Can you descend?

- a. No
- b. Yes

The Answer is B, Yes. According to FAR 91.175(c)(3)(i), you can descend to 100 feet above TDZE on a precision or non-precision approach, as long as you are continuously in a position to land, have the required flight visibility, and you can see the approach lights.



6) Which of these things will NOT allow you to descend below DA/MDA and land on an instrument approach?

- a. Threshold
- b. Runway Markings
- c. Taxi lights
- d. Runway lights
- e. Threshold lights
- f. Runway end Identifier Lights

The answer is C, Taxi Lights. According to FAR 91.175(c)(3)(i), you can't use taxiway lights to descend and land on an instrument approach.



What year did Mooney begin to make a profit?

Answer: 1959

In 1958 the M20A joined the lineup with a larger 180 hp Lycoming O-360-A1A engine, and by 1959 this was the only model offered. Mooney sold 231 Mooneys that year. This was the first year the company made a profit. The M20A continued production into 1960 when 166 were delivered. These were the last of the Mooneys to have wooden structures in the wings and tail.

The Passing of one of the Founders of the Mooney Safety Foundation, Theodore G. Corsones



RUTLAND — Theodore Gus Corsones, 94, passed away peacefully with his family at his side on December 5 in Rutland. Ted was born in Burlington, Vermont on May 25, 1929, the son of Gus and Pota (Anagnos) Corsones. He graduated from Rutland High School and attended Dartmouth College before serving in the U.S. Army and graduating from Boston University School of Law in 1954. Ted enjoyed a career in law that spanned over 65 years, serving as Rutland County State’s Attorney and as Vermont Municipal Judge before working as a trial lawyer in private practice in Rutland for decades. Ted also served as General Counsel for Shriners’ Hospitals from 1983 - 2011.

Ted was a life-long pilot, a Master CFI, and earned the Wright Brothers Master Pilot Award from the Federal Aviation Administration in 2014.

He was a proud early member of the Otter Ski Patrol at Pico. Ted also served as President of the Rutland County Bar Association, and was Past Potentate of Cairo Shriners, Past Grand Master of the Vermont Masons, Past Exalted Ruler of the Elks Club in Rutland, and was active in St. Nicholas Orthodox Church throughout his lifetime. Ted was predeceased by his beloved wife, Theane (Christie) in 2022 and is survived by their three children, Cort, Chris and Greg and daughter-in law Teri (Welsh). He is also survived by his grandchildren Nick, Diane, Emily, Brendan, Caroline, Nolan and Ethan and his great grandchildren Alex, Violet, Mabel and Theodore. Ted was also pre-deceased by his parents and his brothers Stratton and George. Calling hours were scheduled for Friday, December 8 from 4:00 – 6:00 pm at Clifford Funeral Home in Rutland. A Masonic Service was held at the Funeral Home at 6:00 pm. A private funeral with family will be separately held. Memorial contributions may be made to Cairo Shriners, 51 Washington Street, Rutland, Vermont 05701 or to the charity of one’s choice.

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Let There be Light

By Terry Carraway

Our airplanes have a number of external lights. Traditionally, these have been a mix of incandescent and strobe systems. These days, we have replacement LED lighting that is brighter, longer lasting, and lighter.

Why do we have all these lights? There are two main reasons. First is visibility. Airplanes without lights are not very visible, more so at night. (Yes, that is a joke). We have nav/position lights that allow others to determine our orientation and direction of flight, just by looking at the light pattern. Quick, which light is the red one? Answer below. And we have lights that make us more visible to other pilots in flight or even on the ground. The other reason for lights is to help the pilot see at night. For this, we have the landing and taxi lights.

The lights that enhance the visibility to others are an important part of see and avoid. In the early days, this was most likely a tail or belly beacon. The original ones were an incandescent light with a motor and shade that rotated, so to the observer, it appeared to flash. These were called “rotating beacons.”

Your peripheral vision does not see things clearly. just a blur. But it is attuned to see color, brightness, and movement. So, a flashing light off to the side is changing brightness and seems to move, so it attracts our central vision to see what it is.

Many later aircraft added or replaced the beacon with strobes. Strobes are brighter, so they are visible at a longer distance and the extra brightness is more visible to our peripheral vision. First came strobes that simply replaced the mechanical rotating beacon, but then the bright white wingtip strobes came into being. The FARs allow you to delete the beacon if you have strobes that are visible from all directions. There are a couple of things to consider. It is a common warning on the ramp that when the beacon is on, the engine is running or about to start. I am a fan of keeping your beacon, even if you have strobes. I am enough of a fan I am adding a beacon to my Mooney as part of my avionics upgrade. I will leave the switch ON, so that when the Master comes on, the beacon comes on as a warning to others on the ramp. Another positive note is, as you walk away from your airplane, look back at it. The flashing beacon will catch your eye and tell you that you forgot to turn the Master OFF. It is considered bad form to run your strobes when on the taxiways and ramp, so you shouldn't use them like a beacon to warn of impending engine start.

In most installations, there are three strobes – one each wingtip and the tail. However, some installations only require wing tip strobes, as they are visible from the rear. In our Mooneys, most installations have a power pack for each strobe. These weigh over a pound each, so you gain some useful load by switching to LED units and gain longer life and brighter flash. The LED units support synch of the strobes, so that all of them flash together. Studies have shown that non-synchronized strobes are more likely to catch your attention, but they just look strange to me. It is your choice. To synchronize the strobes, you may need to run an extra wire. On my 252, there were only three wires to each wing tip, so I am having the wiring replaced. Also, on later model Mooneys, the light in the rudder is only a strobe and the rear position lights are in the trailing edge of the wing tips. If you change to LED, you can have that rear light as both a strobe and a position light, but you will need to do some wiring to make this happen.

Later model Mooneys have Recognition Lights in the wing tips. These are forward facing lights that make the plane more visible. You REALLY want to change these to LED.



In operation, the original halogen lamps are very hot and if you leave the lights on during ground operations, you WILL damage your wing tip clear lenses. These cost over \$300 each, plus installation. Thanks to James Gallagher of Gallagher Aviation (<https://www.gallagheraviationllc.com/>), Whelen has LED recognition lights for our Mooneys. James covered the requirement that Whelen wanted an order of 200 lamps to develop and make them.

Do you know what the basis of our landing and taxi light bulbs is? They are Ford tractor headlights from the 1920s – very old technology. If you do any flying at night, you owe yourself to replace those old lamps with at least an LED landing light. It makes a tremendous difference. Landing

and taxi lights can also be left on in flight, day or night, to enhance the visibility of your plane. The long life of LED lights makes this a reasonable thing to do.

There is one more thing to consider: Pulsing your lights. I said earlier that our eyes react to motion, and flashing attracts our attention. Another advantage is the pulsing light makes you more visible to birds and reduces the chance of a bird strike. There are several pulsing systems available. One of the originals is the [PulseLight](#). It was originally set up to pulse the landing light. One neat thing about the way it works is, if you turn on the PulseLight, the landing light pulses. If you just turn on the landing light switch, the landing light reverts to steady ON for landing at night. There is no fumbling with multiple switches. If you have the pulser off, the normal switch just turns that light on and off as normal. The downside to the PulseLight is the price. It is over \$1,100.

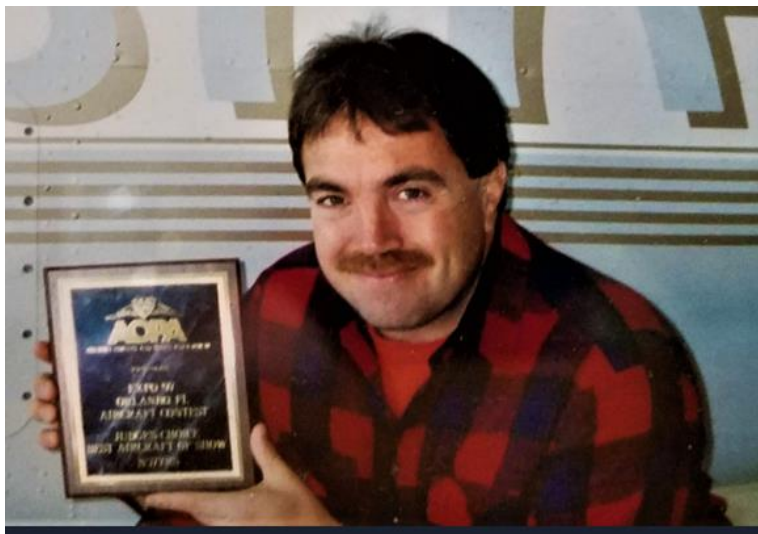
The [MaxPulse](#) is a less expensive route. It is less than \$400 but is designed to pulse a pair of recognition lights. It has a rotary switch that selects to pulse the two lights together or alternate and changes the pulse rate. You can also select steady on.

Whelen also makes some pulsing units. They are not well advertised. The 28-volt unit is the 71156 and is available from Gallagher for \$650. They also have 14-volt pulsers with four circuits. It pulses one and two together, alternating with three and four. Each has another input, so that when you ground that input, (turn on a switch), that circuit reverts to steady ON. I am looking at having one and two be my recognition lights, three be the landing light, and four be the taxi light. The recognition lights and the landing plus taxi light will pulse alternating, but when I turn on the landing light switch, it will go steady and the same with the taxi light. Like the PulseLight, if the pulse unit is turned off, the switches turn the specific lights on and off as normal.

From a safety standpoint, there is a good argument to upgrade your lighting to LEDs. From a practical standpoint, you may decide to wait until you need to replace some lights. Things like strobe power packs are getting more and more expensive and have long lead times because they are not kept in stock. It is the same with the strobe tubes themselves. I have switched all my exterior lights, except the rear tip nav lights, and added a belly beacon and pulser. You WILL see me coming.



Oh, and the red light is on the port or left wingtip. I remember it as “Red Right is Wrong.” You may think this is an easy question, but a pilot friend of mine recently told me she was talking to a Captain with a major US carrier who insisted that the **red** nav light was on the right wingtip.



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Our objective is to always provide a very pleasant transactional experience for both the Seller, and the Buyer. We have two offices. One in Auburn, AL and one in Chandler AZ. Please give us a call or email. We look forward to the possibility of serving you. Thank you.



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An Apple a Day



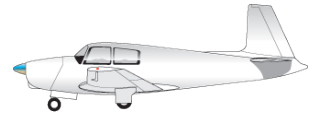
We all know how important it is to stay hydrated while flying. However, I have always found that drinking a lot of water leads to more bathroom breaks. Couple this with the fact that at altitude, there is lower pressure outside the body and higher pressure inside the body and you can experience a high-pressure situation (PUN INTENDED). The real issue is, if not relieved soon, it can lead to an emergency where safety of flight can be genuinely compromised. With over 46 years of flying, I have had to declare a biological urination emergency twice; one time was serious and painful.



About 25 years ago, someone told me about APPLES!!!! Since then, I have substituted water with apples and have found that they work like a charm. Why? 1) Apples can hydrate you adequately and prevent you from pressurizing your bladder. 2) Apples regulate your blood sugar levels, enhancing in-flight sharpness and acuity. 3) Apples quell hunger pangs and lead to an overall enjoyable feeling while flying. 4) Apples taste good and prevent doctor visits. (It's True!!). These reasons alone are enough to make the switch. However, if you do, I HIGHLY recommend having enough napkins for the cleanup. Try Plums and Pears next.



Mooney Maintenance



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The Mooney Flyer
Magazine for the Mooney Community



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What is the appropriate way to pickleball an engine?



The correct term is just “pickle” the engine.” It is a long-time term used for preparing the engine for long term storage. Because of the extensive time it took to ship by sea, Pickling was used extensively during World War II for engines and other parts being shipped to the World’s war zones.

The basic procedure was to fill all parts of the engine with some type of oil, even diesel fuel, to prevent exposure to air. Many parts, including guns, were packed in a type of grease called Cosmoline, which while messy, did the job.

Google, pickle the engine and you will get some current methods for pickling.

Note: Pickleball is a relatively new tennis-like game, currently very popular.

Top Gun Aviation

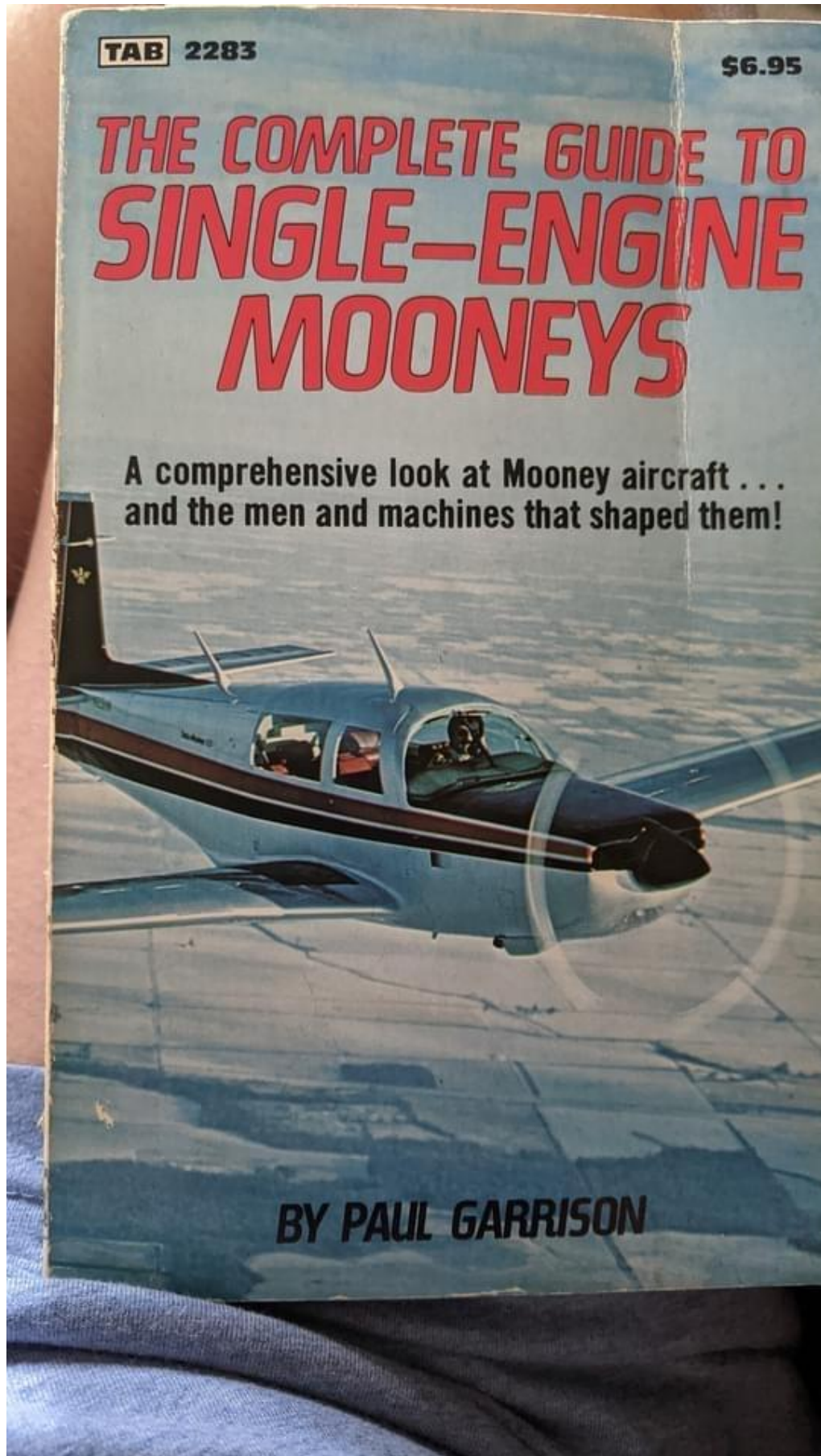


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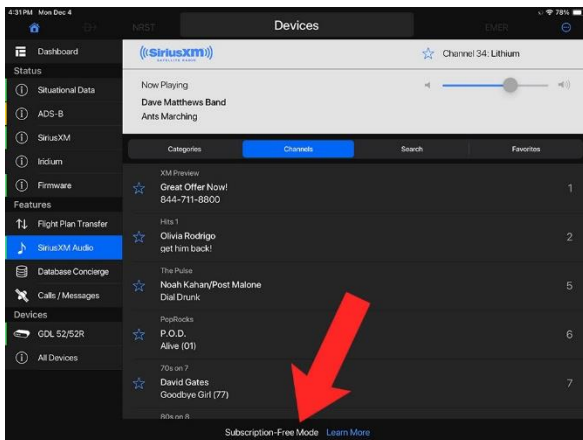
ForeFlight Introduces Updated Sentry ADS-B Receiver



Sentry includes all the essential features—weather, traffic, GPS, AHRS, carbon monoxide detector—but at a size and price that make it a great fit for almost any pilot. This week, ForeFlight announced an updated Sentry that doesn't add major new capabilities but offers enhanced performance. \$599

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How to listen to SiriusXM Radio in ForeFlight and Garmin Pilot



Garmin's top-of-the-line portable weather receivers, the compact GDL 52 and GDL 51, receive more than just GPS and weather. With an active SiriusXM subscription, pilots and passengers can also enjoy music and live sports in flight. Once you've configured all your devices, it's very easy to listen to SiriusXM Radio, but the first time you do it there are a few steps to follow.

[READ MORE](#)

NTSB’s ‘Most Wanted’ List of Safety Issues to be Retired



The National Transportation Safety Board (NTSB) announced today it will discontinue its “Most Wanted” list of transportation safety improvements at year-end. Begun in 1990, the list has highlighted safety issues the board viewed as priorities for attention from related government agencies, such as the Federal Aviation Administration, as well as industry stakeholders.

Aviation-specific items on the most recent list include requiring and verifying the effectiveness of Safety Management Systems in all revenue-passenger-carrying operations, installing crash-resistant recorders, and establishing flight-data monitoring programs. NTSB Chair Jennifer Homendy said, “The Most Wanted List has served the NTSB well as an advocacy tool, especially in the days before social media, but our advocacy efforts must advance. Freed from the structure of a formal list, the NTSB can more nimbly advocate for our recommendations and emerging safety issues.”

FAA Reauthorization Deadline Extended (Again) to March 2024



The House Transportation and Infrastructure Committee passed a second extension of FAA authorization as lawmakers quibble over a contentious bill.

According to Senator John Thune (R-S.D.), who serves on the Senate Commerce, Science, and Transportation Committee, an agreement is in place that “deals with the pilot shortage, pilot supply issue and incorporates some of the best and greatest technology.”

Still, the Senate has yet to approve the bill in full, which has kept fresh funding behind bureaucratic red tape and could stymie recently appointed FAA Administrator Michael Whitaker.

[READ MORE](#)

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CLICK HERE](#)

[Contact Your Senator
CLICK HERE](#)



Dec 23, 2023: FAA Reauthorization Extension Clears Senate

The U.S. Senate passed legislation that will temporarily extend authorization and funding for FAA programs and activities until March. Now that it has passed the Senate, H.R. 6503 requires the president’s signature before becoming law.

New Flight Gear battery pack adds wireless charging and built-in cables



The [Flight Gear Backup Battery](#) is a 20,000 mAh battery brick with plenty of capacity to keep all your devices charged. That model is staying around. Now there’s a new option that’s small enough to fit in your pocket and eliminates the need to carry cables.

The [small Flight Gear Backup Battery](#) is about the size of a deck of cards (4.25”h x 2.75”w x 0.75”d), but still packs a 10,000 mAh capacity. While that’s half the size of its big brother, it’s plenty to charge an iPad and an iPhone in a single go.

There are five different ways to charge:

- **Built-in lightning cable:** This short cable stores in the back of the battery and is perfect for older iPhones and iPads.
- **Built-in USB-C cable:** This one also stores in the battery and works with newer iPads (including the Mini 6) and the iPhone 15, as well as Sentry and Stratus ADS-B receivers.
- **USB-A port:** If you need a longer cable, or if you want maximum compatibility, this is the perfect port. Its output is rated at 5V/4.5A, 9V/2A, 12V/1.5A so it can charge devices quickly.
- **USB-C port:** This bidirectional port can fast charge external devices (including with Power Delivery) at 12V/1.67A, but it's also used as the in-port to charge the battery pack itself.
- **MagSafe wireless charging:** The front of the battery pack includes a circular, magnetic charging connection. This works with iPhone 12 and newer. It is rated for up to 15W.

[READ MORE](#)

New Flight Gear Survival Tool from Sporty's

Just introduced is [Sporty's Flight Gear Survival Tool](#), a 13-in-1 aviation multitool.

"Sporty's Flight Gear Survival Tool is a portable toolbox that is a great addition to any flight bag," says Sporty's Director of Aviation Products Doug Ranly. "It's useful during preflight, owner-performed maintenance, or in an emergency."

Sporty's Flight Gear Survival Tool features:





- Axe blade
- Wire cutter
- Flat pliers
- Regular pliers
- Hammer
- Knife blade
- Hex key
- Phillips screwdriver
- Saw
- File
- Bottle opener
- Serrated blade
- Medium slotted screwdriver

The tool, priced at \$29.95, measures 6.3 inches x 3.5 inches and weighs one pound. It includes a carrying case and rubberized sheath to cover the axe blade.

For more information and ordering:



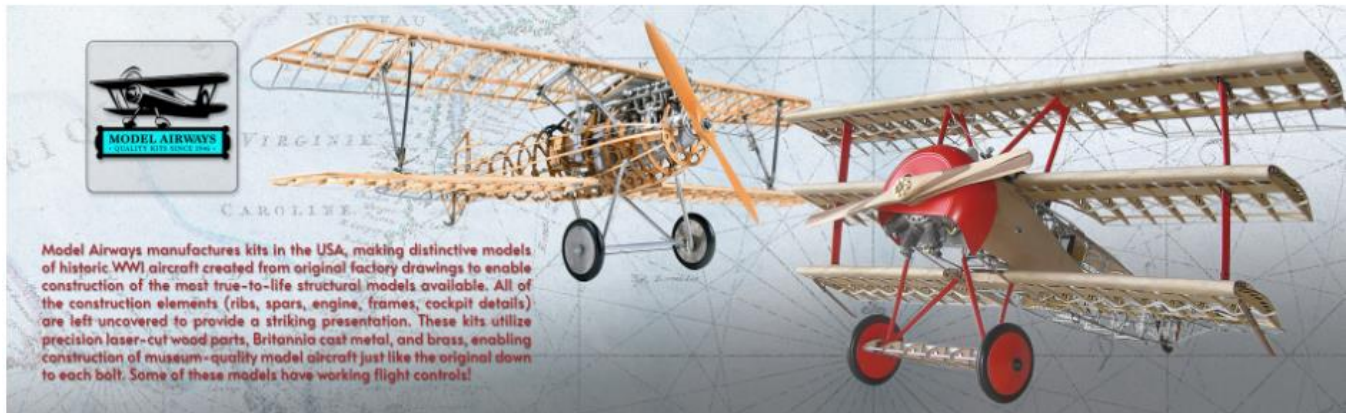


	<p>Contact Dave at daveanruth@aol.com or (352) 343-3196, before coming to the restaurant, to have an accurate count. Events begin at 11:30 January 13: Williston (X60) February 10: Fort Pierce (FPR)</p>
	<p>Sign Up at https://www.mooneysafety.com/ppp-registration/ 2024 Event locations: Ocala, FL, Jan 26-28 Santa Maria, CA, Apr 5-7 Owensboro, KY, June 21-23 Burlington, VT, Sep 6-8 Dallas Ft Worth, TX, Oct 18-20</p>
	<p>2024 AGM fly-in will be to Port Lincoln in South Australia. You will be able to enjoy fabulous Coffin Bay oysters, swim with the tuna, visit local wineries and much more.</p>
	<p>Learn more at https://www.empoa.eu/index.php/en/</p>
<p>Other Mooney Events</p>	



Model Expo

MODEL AIRWAYS KITS



Here's a different sort of Product Review this month, primarily for those of us that enjoy building model airplanes, especially wooden ones.

I love their amazing collection of WWI airplanes.

There are models that range from beginner to expert builder.





Parts for Sale

1965 Mooney M20C Mark 21 (\$74,999)

180 horsepower Lycoming O-360-A1D
Johnson bar manual landing gear
IFR capable (VOR/DME/Glideslope)

Mooney cruise airspeed 145 Kts @ 9 GPH @ 5,000ft
Or 7.8 GPH @ 8,500 ft
Economy mode 87 Kts @ 3.8GPH (low manifold pressure and prop pulled back)

Video: <https://youtu.be/RNurNwEwMmg>

Photos: <https://aeroplane4sale1.wordpress.com/>

Panel video: https://youtu.be/r1rq_ke0eek

More info on the Mooney: <https://mooneyspace.com/topic/45533-1965-m20c/>

Extensive 6 week annual just completed on the Mooney as of April 2023. All compressions in the mid/high 70s.

Mooney logs: https://drive.google.com/drive/folders/1c7fMmP43vVq5_u7zhyxafC41ot_hKpJD?usp=sharing
Complete logs since new, no damage history, no corrosion

1959 Mooney 20A - Seeking Mooney Purist * \$17,000

Hangar stored for years, now ready for overhaul(s) and refurbish. * Airframe and engine 1439.1 TT. McAuley prop. O360 engine. Wood-wing.

* Would consider selling only the engine and prop. However, sentimentally prefer to find a Mooney Lover seeking a great project. * Telephone: 419 591 6477 for further information.

Item for Sale

Call Tom 303-332-9822

New Hartzell Propeller Hub HC-C2Y (K, R)-1 Serial CH41782B

This hub will comply with AD2006-18-15 and superseded by AD2009-22-03

This AD affects many IO-360 aircraft.

Current Hartzell price is \$4,275.

Price \$3,500 **REDUCED**

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 – leebern@msn.com (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 – leebern@msn.com (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 – leebern@msn.com (562-865-2547)

Access Covers P/N 3000-901 (2-available) - 1-without nuts attached.

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



For Sale: Complete exhaust system from 1975 M20C. Excellent condition. Drilled for EGT sensors.

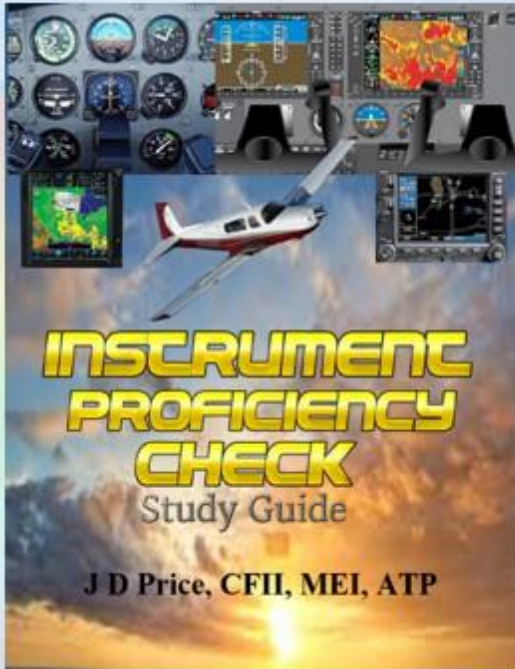
Approximate 2,750 hours TT. Removed for Power Flow upgrade. \$350. For information: 541-382-6752; 541-410-1121;

jhl1csrs@yahoo.com



For Sale: Polished Hartzell 3 blade spinner P/N: A-2295-4P. Fits Mooney M20J and M20C with STC and other applications. Complete with bulkhead. \$500. For information: 541-382-6752; 541-410-1121; jhl1csrs@yahoo.com





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online

FREE

JDPriceCFI.com