The Mooney Flyer

The Official Online Magazine for the Mooney Community

www.TheMooneyFlyer.com

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Editors

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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 FTE

Our Favorite Mooney Destinations in the West

We fly our Mooney primarily to have fun and go to places to enjoy that are within 4-5 hours of our home airport in Paso Robles, CA (KPRB). You ask why the 4-5 hour length? It's simple. Despite the amount of fuel in our Eagle, our bodies need to touchdown after four hours or so.
This 4-5 hour length enables us to reach Seattle to the north, Glacier National Park to the northeast, Durango or Santa Fe to the east, and well into Mexico to the south. Try that in your Cessna or Piper!

North of Paso Robles

Museum of Flight

When travelling to **Seattle, Washington**, we actually prefer Paine Field (KPAE). This is a Boeing field with a separate GA runway and wonderful FBO. Things to do are numerous: 1) Visit downtown Seattle, 2) Tour the Boeing plant at Paine Field, 3) Visit the Museum of Flight just north of SEATAC (you should allocate most of the day.. it's remarkable), 4) Visit Snowqualamie Falls and stay at Salish Lodge in the Cascades.
While we are in Washington, it's worth a day trip or longer vacation to Friday Harbor (KFHR), Orcas Island (KORS) and Port Angeles (KCLM). **Friday Harbor** is a great weekend getaway and the town is walking distance from the airport so you can stay/eat/drink without a car. **Orcas Island** is quieter and the airport is charming. Camping on the field is wonderful and there is a path through the woods to a quaint town with shops and restaurants. We suggest that to get around easily, bring your eBikes. **Port Angeles** is on the Olympic Peninsula and the best airport if you want to explore the Olympic Mountains and Rain Forests.

Friday Harbor

Sun River

Our favorite destination is of course **Sun River, Oregon** (S21). Sun River is a huge resort with a lodge, condos, townhomes and houses to rent. With about 40 miles of walking/biking trails in the forested high desert, it's an amazing getaway with its own airport. If you stay on the resort, transportation via shuttle is free. There is fishing, rafting, kayaking, an observatory, horseback riding, golfing and more.

Northeast of Paso Robles

Of course, **South Lake Tahoe, Nevada** (KTVL) is the best. Lake Tahoe is a four seasons destination with snow skiing, water activities, hiking and more.
Along the way, **Columbia , California** (O22) is in the foothills of the Sierra Nevada and is an old Gold Town. Stay in the town, eat, enjoy the gold rush shops. Rent a car and drive to the town of Murphys for an additional taste of the gold towns in the foothills.

East of Paso Robles

You can visit, Las Vegas, Nevada, Grand Canyon, Arizona, Sedona, Arizona, Page/Lake Powell, Arizona, Monument Valley, Utah and Santa Fe, New Mexico.

When visiting Las Vegas, we usually fly into Henderson (KHND), but you can also use North Las Vegas (KVGT). It's a shuttle into downtown, but from there, you can also visit the Hoover Dam and Valley of Fire.

El Tovar Hotel

When visiting the Grand Canyon, fly into KGCN. It's an easy shuttle to the rim and all of the hotels. Make sure you visit or stay at the El Tovar Hotel and walk the Rim Trail. Don't miss the sunrises and sunsets. You can also fly into Peach Springs, Arizona (L37) to the west of KGCN where the Hualapai Nation has built the Canyon Skywalk.

Sedona is a must for any Mooney pilot to visit. KSEZ is referred to as the USS Sedona as it's on a mesa. Except in windy conditions, it's a pretty straightforward landing, but will play with your visual site lines. Sedona has lots of great hotels. Grab a steak at the Steakhouse 89. Hike on Broken Arrow, Bell Rock Loop, Soldier Pass, Devil's Bridge, and Doe Mountain, just to name a few. Shop at Tlaqueapaque for a unique experience.

Sedona

Page/Lake Powell (KPGA) is another favorite or ours. Get out on Lake Powell with a motorboat, houseboat or tour. Seeing the slot canyons while on the Lake is breathtaking. You can take a guided Navajo tour of the slot canyons as well. If you have more time, float down the Colorado River from the Glen Canyon Dam to Marble Canyon. It's flat water and quite dramatic. Horseshoe Bend is a nearby drive and well worth the visit. Don't forget to fly all over the Lake. It's quite stunning.

Our next favorite is **Monument Valley** and (UT25). It's a one-way in and one-way out airport, so check the windsock. There is no way to make a late go-around safely. Visiting Monument Valley is a spiritual thing. If you are able, time your visit to have the Navajo take you on a Full Moon Tour. It's a great experience.

Monument Vally Airport

Santa Fe (KSAF) needs no additional information. The scenery, the hotels, the food, the downtown are filled with southwest delights. Bandelier National Park has cliff dwellings.

For an unworldly hike, try the Tent Rocks. Additionally, Taos is worth a day trip.


Tent Rocks

South of Paso Robles

Our unquestionable favorites include Catalina Island, Palm Springs, San Diego, and Baja Mexico.


KAVX - Airport in the Sky

Catalina Island (KAVX) – also known as Island in the Sky, is a must visit – at least once. You land on a 3,000' runway recently rebuilt by the USMC, but it is still pretty bumpy and uneven. Land on Runway 21 if able, as the runway upslopes. You can just drop in for lunch and grab a buffalo burger at the airport restaurant. You can also pick up a hiking trail there. You can take a shuttle to Avalon and stay overnight in that quaint island town. There's good food and a zipline if you are interested in that.

Palm Springs is best visited in the cooler months. We fly into Thermal KTRM) which is south of Palm Springs but very GA friendly. We use Thermal Self-Serve as they are inexpensive and cater to us. Hiking in Palm Springs is a must. Joshua Tree National Park is also a great visit. If you are into shopping, visit El Paseo Drive.

San Diego is another favorite. We fly into Montgomery Field (KMYF) and stay in the Gaslamp District as it puts you in the middle of everything. Visit the San Diego Zoo, the Air Museum, and the Maritime Museum.

Baja Mexico is well worth a trip. Fly to **Loreto**, or **Cabo San Lucas** (further south).

Mulegé is a dirt strip with the Hotel Serenidad, which is owned by an American couple.

Loreto is a smaller town filled with hotels, restaurants, bars and shopping. It's a good jumping off spot for whale watching in February and March.

Cabo San Lucas is at the tip of Baja and a little more touristy, filled with beachside resorts. Flying there is easy, but it is desolate and remote.

To help you prepare for a trip to Mexico, you can reach out to **https://www.bajabushpilots.com/**

Summary

These are just a few of our favorite destinations. Hope this gives you some ideas.

Mulegé

Loreto International

PRESS RELEASE

SECOND RETIREMENT COMING UP!

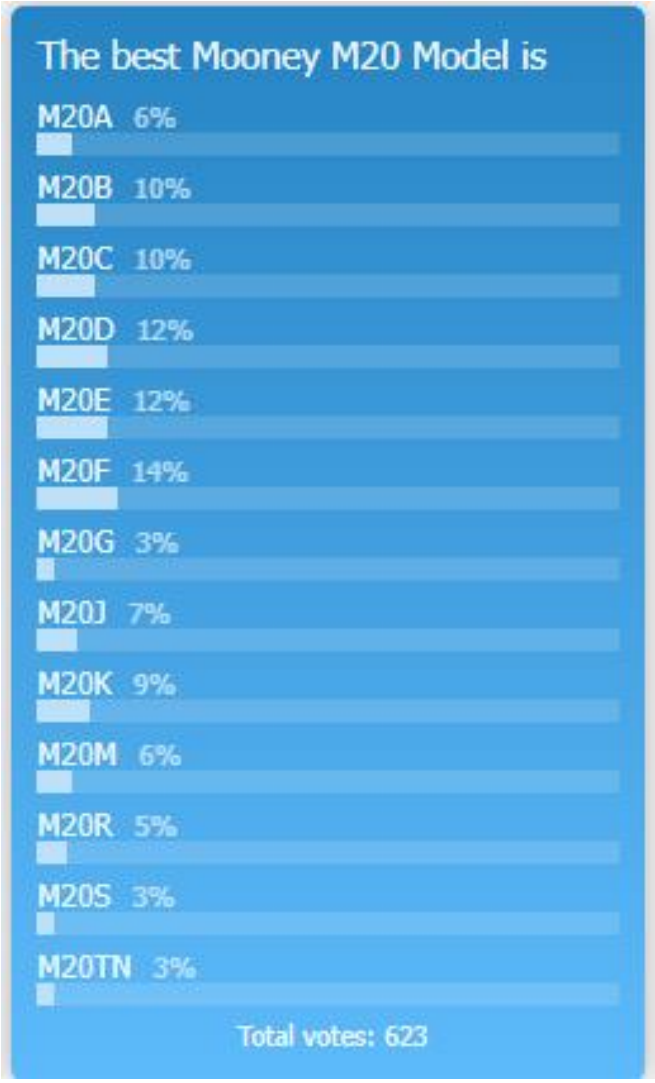
Loewen's Mooney Salvage FOR SALE

Paul Loewen has enjoyed over 50 years in the Mooney family……first in the Los Angeles area as a Mooney Service Center at Whiteman Airport in Pacoima (after working at Hollywood/Burbank Airport for a Mooney dealer beginning in the mid-1960s). He moved to Lakeport in 1973 and began Lake Aero Styling & Repair (LASAR) in 1975. The rest is history, as they say!

Paul sold LASAR in 2017, and he would love to see a "Mooney person" require the remaining salvage business that provides Mooney parts from a collection of more than the past 50 years. Paul has enjoyed selling parts from his collection that are no longer available new from the Factory to Mooney owners world-wide.

If interested, contact him by home phone 707 263-0462, text 707 489-6423 or email PaulL@sonic.net.

LOEWEN'S MOONEY SALVAGE (www.loewensmooneysalvage.com)



Next month's poll: "How Concerned Are You About Parts Availability" **CLICK HERE** to vote.

Letters to the EDITOR

TheMooneyFlyer@gmail.com

RE: Hot Starts - I have owned and flown a M20J for 32 years and know well the "hot start" problem. The method Don shows in his video works fine for a hot start that occurs within 5, 10, maybe even 15 minutes of shutting down. However, after 10 to 15 minutes (depends a little on how hot it is outside), his method DOES NOT WORK. I know this from experience!!!!

Don confirms what I always believed to be the problem – that fuel is percolating in the spider valve, slowly causing a flooded engine. Which is why you do NOT want to use the boost pump, as Don points out. His hot start method works fine until this percolating action causes the engine to become really flooded, which occurs after 10 to 15 minutes. If you use his method after this long a period, the engine is flooded and just won't start – you'll run your battery down and do your starter motor no favors.

Long ago, a mechanic at Lake Aero Styling showed me how to hot start a M20J after it's been sitting for 10 to 15 minutes or more. It's the same as what Don does, except for one key difference: Put the throttle at wide open (WOT). To summarize:

- Do NOT use the boost pump
- Leave the mixture at idle cut-off
- Move the throttle to wide open
- Hit the starter
- 6 to 8 blades will swing by, and then she'll start
- Very quickly, close the throttle to idle and move the mixture to rich
- Then lean the mixture

The difficulty is figuring out exactly how long after shutdown you can use Don's method, versus using the above method. I've found that the above method works every time no matter how many minutes after shutdown, so I just use the above method for every hot start. As Don stated, you're dealing with a flooded engine, and us old timers who grew up with carbs on 50's, 60's, and 70's car engines know that WOT was the way to start a flooded engine.

A hot start is no big deal and holds no fear for me anymore, now that I use the above hot start procedure.

Hope this helps any M20J owners who fear the dreaded "hot start" problem!
Regards, Tim H

Life After 100LL

If there ever was a prize for the most drawn out rollout of anything, it is unleaded aviation fuel. 100LL has been around for a long time and appears it will be around for another four to five years if everything goes well.

There is 100VLL in existence, but it is made of mostly "unobtainium" and only has about 20% less lead. So, it is not even an unleaded fuel.

94UL, (yes Martha, it's unleaded), is available, but as of this writing, at only in 25-30 airports. The good news is that it is available, but there is some bad news also. Only a little over 60% of the piston aircraft can use it. Those consist of primarily lower compression engines like the Lycoming O360, and definitely **not** the Continental IO550s. Further complicating the difficulty in finding UL94 is the fact that you must first purchase a Forever STC from Swift Fuels for $100. However, the question you need to ask is why would you do that?

UL100 is only 3-5 years away and there are a few things that are good about UL100. First, it'll work in all of our piston engines. Second, some manufacturers may increase their TBO (Time Before Overhaul) for engines operated with UL100. Third, most likely you won't need an STC to use it. Lastly, once it's available, it will surely replace 100LL and UL94. Why? Because the refiners don't make a lot of fuel for piston aircraft and to support 3 variations, this would divide that into three smaller markets. That's why. Multiple options may exist if the oil companies overcharge for UL100. But there is no reason to do so, as refining UL100 is much easier than producing 100LL. It is therefore cheaper to refine. It remains to be seen what the price will be.

What is UL94

UL94 is a 94+ Motor-Octane aviation gasoline without Tetraethyllead that meets the ASTM D7547 Unleaded Avgas specification. UL94 is also rated as a super-premium ethanol-free auto-gasoline with a 99 octane (R+M)/2 rating that meets and exceeds the ASTM D4814 auto fuel specification.

UL94 Unleaded Avgas has an identical density to 100LL, meaning weight and balance calculations will not change by using UL94.

Lycoming Engines Approved for UL94 1070AB			
Lycoming Engine Models		AVGAS ASTM D910 100LL	AVGAS ASTM 7547 UL94
O-145	-A1, -A2, -B1, -B2, -B3, -C1, -C2	•	•
GO-145	-C1, -C2, -C3	•	•
R-680	Series (min 50 to 87 octane)	•	•
O-235	-C, -E, -H	•	•
O-235	-K, -L, -N	•	•
O-235	-M, -P	•	•
O-290	-A, -B, C, -D	•	•
O-320	-A, -B, -C, -D, -E	•	•
IO-320	-A, -B, -D, -E	•	•
AIO-320	-A, -B, -C	•	•
LIO-320	-B	•	•
AEIO-320	-D, -E	•	•
O-340	-A1, -A2, -B1	•	•
O-350	Series (min 73 octane)	•	•
O-360	-A, -B, -C, -D, -F, -G, -J	•	•
HO-360	-A, -B, -C	•	•
IO-360	-B, -E, -L, -M, -N, -P	•	•
LO-360	-A	•	•
HIO-360	-B	•	•
HIO-360	-G	•	•
IVO-360	-A	•	•
LIO-360	-B, -M	•	•
AEIO-360	-B, -H	•	•
O-435	-A, -C (except A2)	•	•
GO-435	-C, -C2 (C2 see 1070AB)	•	•
VO-435	-A1 Series A-F (min 80/87 octane)	•	•
GSO-435	-B, B2	•	•
GO-480	-A, -B, -D, -E, -F	•	•
O-540	-A, -B, -D, -E, -F, -G, -H, -J	•	•
IO-540	-C, -D, -N, -T, -V	•	•
IO-540	-W, -AB, -AF	•	•
VO-540	-A, -B	•	•
AEIO-540	-D	•	•
Lycoming Engines Approved for UL94 1070AB			

UL94 4 Unleaded Avgas is sold nationwide and in selected international locations.

UL94 Unleaded Avgas satisfies the minimum octane requirements of over 125,000 aircraft (66% of the US piston fleet) as a "Drop-in Ready" Unleaded Avgas. It requires no modifications and no hardware changes.

UL94 has been produced and sold solely by Swift Fuels from their Indiana fuel facility since 2015. All Swift Fuels proprietary avgas products can be licensed for low-cost bulk production from major fuel producers.

Also, you must use one of the oils listed below with UL94.

Additized Oil	Date of AMOC Approval
Aeroshell Oil W 15W-50	November 9, 1987
Aeroshell Oil W 100 Plus	May 4, 1999
Exxon Aviation Oil Elite 20W-50	January 24, 2000
Castrol Aviator AD 65	May 27, 2003
Castrol Aviator AD 80	May 27, 2003
Castrol Aviator AD 100	May 27, 2003
Castrol Aviator AD 120	May 27, 2003
Aeroshell Oil W 80 Plus	February 6, 2006
Phillips 66 Victory® Aviation Oil 100 AW	April 4, 2006
Total AERO DM 15W50	May 22, 2009
Total AERO XPD 80	June 17, 2011
Total AERO XPD 100	June 17, 2011
Total AERO XPD 120	June 17, 2011

What is UL100

The petroleum components of UL100 are the same as 100LL sold today, and a new manganese-based additive package replaces the lead package. The new additive package is comprised of manganese, a proprietary scavenger formulation, and an antioxidant. The relative percentage of petroleum components have been adjusted to optimize performance with the new additive package.

Preliminary testing of UL100 has shown equivalent octane and detonation performance compared to 100LL. Testing will continue to demonstrate performance in the most demanding engines. The goal of UL00 is to avoid the need for any aircraft modifications.

Initial engine testing indicates that the current recommended oil change intervals will not be impacted by the use of UL100.

Methylcyclopentadienyl Manganese Tricarbonyl (MMT) is a metallic octane boosting additive that was invented in the late 1950's by Ethyl Corporation. MMT is known to provide engine benefits such as octane number increase, detonation protection, valve seat recession protection, and combustion improvement. So today, UL94 if you can find it, then UL100 forever after 3-5 years.

Remain Insured, get the Best Premium and be a Better Pilot

Insurance Cycles

Insurance, like any other marketplace, has its cycles and right now, it is in an increasing premium cycle. In fact, General Aviation (GA) insurance premiums increased significantly (33%) from 2018 to 2020. This was the largest increase in written premiums for the GA market since the period immediately following 9/11.

GA insurance rates are not just determined solely by GA occurrences. It does not matter if you are flying an Airbus 380, a Boeing 737 MAX, or a Mooney. The insurance industry looks at the losses in the entire aviation community. If losses increase, then it becomes difficult to obtain coverage at a reasonable rate.

From 2016 through 2020, on an underwriting basis, the market lost more than three-quarters of a billion dollars. Even with the 2019 and 2020 premium increases, the underwriters lost approximately $50 million in 2020.

Because of the underwriting losses, some insurance companies left the market. (There are currently nine companies that insure GA aircraft). With the decrease in competition, the remaining insurance companies increased their rates and availability became more restrictive.

Conversely, when and if insurance companies start to see an interesting profit in the general aviation market, other companies will start writing aviation insurance, offering better rates and terms.

Hit the Hardest

The two prominent areas hit the hardest by this current market are owner-flown, high value aircraft, such as Vision Jets, TBMs, Pilatus PC-12s, etc., along with those pilots nearing their 70th birthday.

Weather Related Rate Increases

In 2021, aviation insurers increased insurance rates to offset the impact of the COVID-19 pandemic in 2020, when airlines throughout the world grounded their fleets. This had nothing to do with the Mooney community, but when it comes to insurance, we are all affected. Weather wise, the Nashville tornado cost the insurance companies $100 million, and that loss was passed on to us, resulting in higher premiums.

Court Settlements

U.S. Juries have been awarding significantly higher sums over the last few years and the median value of a single-fatality award has gone from $2 million to $5 million. With each high settlement, succeeding plaintiffs want even more.

As you Grow Older, things might change

One pilot friend had been insuring his aircraft with the "million smooth" option. This year, as he reached his mid-seventies, he was not offered a million smooth.
Some companies are insisting that older pilots:

- Show proof of a recent FAA 3rd Class Medical **each year**
- Show proof of a recent Flight Review **each year**

As Mooney pilots approach their eighties and nineties, an insurance company might deny insurance because they think that an aged pilot will surely have a gear up landing.

What can you do?

Stay Current and Fly!!!

Our current cycle will likely continue for the next two to three years. So, what can you do to improve your chance of insurability or renewal at reasonable rates?
If you have not flown in several years, and now you're looking to get back into flying, it is going to be much harder as an older pilot than it would be as a younger pilot. That is because there are concerns that if you haven't flown for five years, your skills may have diminished. Additionally, with increasing age, you are not as quick as you were when you were in your 40s or 50s.

Stay Sharp and on a Safe, Proficient Path

What do Airline pilots, Attorneys, Doctors, Dentists, and their staff have in common? They all require additional training and continuing education (CE). That is why we trust them with our health care and legal matters. Likewise, every time you fly, you passengers trust you with their lives, expecting you to be proficient and sharp. With each course, you will learn something new, and your confidence will increase.

- Add an additional rating to your certificate, whether it is an Instrument Rating, Commercial Rating or even a Seaplane rating.

- You can get involved in the **FAA's Pilot Proficiency Program** called WINGS. Some insurance companies give premium discounts to pilots who are actively participating in WINGs.
- Attend a Mooney Safety Foundation Pilot Proficiency Program, which also provides Wings Credit. These consist of three days, with ground seminars and at least one flight with a Mooney CFI. If you are Instrument qualified, you will fly a second flight, where you will receive an Instrument Proficiency check. The 2022 dates are April 22 – 24 at Santa Maria, CA (SMX), June 3 – 5 at Denver, CO (BCJ), Sept 16 – 18 at Oshkosh, WI (OSH) and Oct 21 – 23 at Reading, PA (RDG).

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

If you continue to train above the bare minimums of a Biennial Flight Review, this can work in your favor when it comes to insurance. Additionally, you will be a much better pilot.

You can seek ways to increase your tech proficiency by purchasing courses to increase your skills. For instance, there might be something that you learned about your GNS or GTN GPS a few years ago, but you have forgotten. Online courses can help you increase your proficiency. King Schools https://kingschools.com/ has courses to help you improve in many different ways. While I was having my panel updated with a Garmin GTN 750, I studied the King Garmin GTN 650/750 Pilot Course. On my first flight with the new installation, I knew what I was doing! Additionally, http://PilotWorkshops.com has a course I really love. It is called "Garmin GTN: Next Level" and it has really helped me improve my GTN prowess.

Any effort will simply make you a more desirable client.

Is Loyalty a Factor?

Some brokers say that an insurance company is more favorable to a pilot who year after year, has been a loyal customer. Some disagree with that premise. Exercise good judgment before you hop from your current company to another, like a teenage boy who can't decide which girl is right for him. Build upon your existing relationship with your aviation insurance broker or underwriter. This is especially true if you are nearing that magical anniversary of your 70th birthday. However, remember that loyalty may favor the broker more than it favors you.

It is so important to have insurance because it protects you and your family. I hope that throughout your life as a pilot, you will continue to find ways to fly safely and insured.

Preflight Yourself

It was an early Friday evening, and I was at the hangar trying to wrap up my owner assist annual.

by Richard Brown

I had arrived at the Fullerton (KFUL) airport at 7:00 am with hopes that I would have everything buttoned up by early afternoon. This would allow me to go on a post maintenance return-to-service flight. A friend a few hangars down pulled up, parked, and got out of his car to say hi.

"Working on your annual?", he asked.

"Yep, I was hoping to have it buttoned up by now but looks like I still have a couple more hours to go. I was going to fly, but I'm too tired to focus, so I'll have to fly tomorrow."

His reply was perfect, "That's good. You have to preflight yourself."

Those two words, "preflight yourself" have been rattling around in my head since he said them. We all learned the IMSAFE Checklist in primary training:

PILOT FITNESS CHECKLIST

I LLNESS
M EDICATION
S TRESS
A LCOHOL
F ATIGUE
E MOTION

I won't go through each of them, but I do want to touch on the flights I have scrubbed before even getting to the airport.

Also, I want to discuss medications because a couple of months ago, when reviewing the FAA's list of forbidden medications, some of those surprised me.

I try to fly once a week. Life does get in the way, but once a week has been my goal ever since I started my primary training. Everything from my flying to radio work is just better when I am fly once a week.

I typically finish my workday on Wednesdays at our dealership which is a mile from the airport. This is a perfect time to scoot over and go for a short evening flight.

However, here's the truth. Although I **LOVE** to fly, there are many times that the weather has been perfect for flying, but I just drove home instead. Why? The only way I can sum it up is to say, "I just didn't feel like flying." A statement like that coming out of my mouth makes my wife think my head needs to be examined. Like I said, I **LOVE** to fly. Even after a busy or stressful day at work it is a great way to end the day; floating above the ground, just me, the plane, and a view that most people will never get to experience.

If I am looking at the IMSAFE acronym, I'm not sick, and stress isn't playing a part of the decision. After all, sometimes a flight is just a great way to unwind. I'm not tired, but I would peg "**Emotion**" as the reason for scrubbing. I just don't feel like flying.

What about "Illness?"

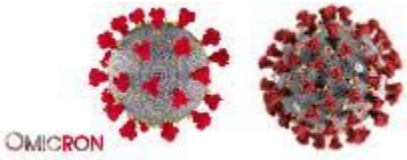
Yes, there have been times that we have either cancelled a trip or driven because physically, I wasn't feeling up to flying. Overall, I am a healthy guy. I ride the exercise bike five times a week, "mostly" eat healthy, try to get between seven to eight hours of sleep a night, take my vitamins, etc. Typically, when I haven't felt well enough to fly, it has fallen into the category of a head cold, sinus infection, or a cough. Could I have flown? Possibly, but driving doesn't take the same amount of concentration and attention to detail that flying requires. Also, if we need to, I can always pull over for a break and have my wife drive. If we are flying, those obviously aren't options.

Speaking of head colds, etc., let's look at medications that the FAA says you can't take if you want to fly. When is the last time you reviewed that list? I'm sure that all of you know that you can't fly if you have taken Benadryl or Nyquil. Those are the easy ones. How long do you have to wait after taking them? The FAA has a great PDF that can be downloaded **here** titled "What Over-the-Counter (OTC) medications can I take and still be safe to fly?" The rule for timing is 5x the dosage interval. So, for Benadryl, which is every four – six hours, 6 hours x 5 = 30. Yes, thirty hours is the time you must wait to fly after taking it.

Here's one you may not know: You can take an allergy medication like Allegra or Claritin, or their generic versions, but you can't take Zyrtec and go fly.

Next consider the wait time for Zyrtec which is a once-a-day allergy pill: 24 hours x 5 = 120 hours. If you took a Zyrtec for your allergies on Sunday morning, you can't go fly until Friday!

I mentioned Nyquil, which makes complete sense, but did you know that **Dayquil** is on the "No Go" medication list? It contains dextromethorphan as a cough suppressant which also is the main active ingredient in the popular cough suppressant Delsym. This places Delsym squarely on the "No Go" list. Dextromethorphan is a common ingredient in many different cough medications, so if you are taking something for a cough, make sure you review the ingredients before going to the airport.



What prompted my recent review of the FAA's OTC (Over the Counter) list? I've had COVID-19 twice; the "original strain" back in 2020 and the Omicron variant in January 2022. The 2020 version was rough, and I was taking Dayquil/Nyquil on the four-hour schedule. I even set an alarm to wake up in the night, so I wouldn't miss a dose. On top of those, I was also taking Sudafed

to stop the faucet that my nose had become, and although I was still riding the exercise bike to keep my lungs clear, there was no doubt I couldn't fly a plane. The Omicron strain wasn't as big a deal. I just took Dayquil/Nyquil along with my regular vitamins. Unlike COVID-19 in 2020, I could miss a dose in the middle of the night and power through.

My Omicron bout occurred just before our trip to Pagosa Springs, which I wrote about in last month's Mooney Flyer. Prior to flying, I figured I should review the medication list. I could just see it in my mind's eye: We make the trip, there is a horrible accident, and there's all the speculation about what could have gone wrong. Then the final NTSB report comes out a year and a half later and it says, "The autopsy revealed that the pilot had dextromethorphan in his system. He was likely taking Dayquil or Delsym. If only he had reviewed the FAA OTC Medication list, this tragic accident could have been prevented."

Yes, that is a bit macabre, but when we fly, let's do our best to always stack the deck in our favor.

The Pagosa flight was planned for a Thursday, so the Sunday before, I quit taking Delsym and switched to Mucinex. Then on Tuesday, I quit taking Dayquil and switched to Sudafed, hoping I would still feel well enough to fly. We were also prepared, if necessary, to make the 13-hour drive instead of the 4-4 ½ hour flight. Thankfully on Wednesday I was feeling good, and we were able to fly on Thursday.

How about one more medication that surprised me when I was reviewing the list. When your intestines feel like they want to turn inside out, Imodium can come to the rescue and keep you from an extended stay on the porcelain throne. You guessed it; Imodium contains Loperamide which is on the "No Go" list. Apparently, it can cause sedation, dizziness, and as the FAA document says, cramps and pain can increase with altitude.

Let's go back to "preflight yourself." I really like the connotation that goes along with that phrase. When I preflight my plane I follow the same procedure every time, checking the plane thoroughly to make sure it is going to operate properly and get me into the air and back on the ground safely. I would never think of just opening the hangar, looking at the plane, and thinking, "Yep, looks good, let's fly." I think of all the times I have flown, and there have been many, that evaluating myself looks a lot like just opening the hangar and looking at the plane, instead of going through the whole preflight checklist.

Take some time and think about what it would look like to "preflight yourself." In general aviation, somewhere around 80% of all accidents are due to human error with a large part of those involving poor decisions. Consider that of the remaining 20% which involve mechanical or equipment failure, a portion could have been avoided through better maintenance or could have been caught during a preflight or runup. If we do a better job of preforming a preflight on ourselves before we ever get to the airport to preflight our planes, I think we can improve our safety record.

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.

Look Ma! No Water!

I've owned two Mooneys over the past 25+ years and neither of them have ever been washed with water. Nevertheless, my Eagle hurts my eyes in the sunshine despite having a 23 year old paint job. Granted it has been hangered its entire life, but I do fly it all over the place and it sits outside during those transits.

How do I do it? It's easy and I think its better for my Mooney. It is also less work than washing it with soap & water.

Washing with Water

First you start by pulling your Mooney out of the hangar and/or taxiing over to a source of water. Now get out your pail, soap, and sponge and wet down your Mooney. Then soap it up and scrub the bugs. Now spray it to rinse all the soap off. Think of all the soap and water that has seeped inside. Now get a bunch of towels and start drying. Finally, get out the wax and start rubbing.

My Waterless Method

First of all, leave your Mooney in the hangar. Grab a dust brush and gently sweep the loose dirt off your Mooney. You only need this step if there is grit on the fuselage or wings. If it's just got dead bugs and bird droppings, you can skip this step. This step takes 3-5 minutes.

Second, grab a spray bottle of WashWax. Spray an area and then gently rub it with a shop towel. If you have persistent bugs, then use a light scotchbright scour pad to help you remove them from the surface. WashWax both cleans and waxes at the same

time. It comes in “blue” and “red”. I prefer the red since it is a little stronger. If you “keep up” with your Mooney, this step takes 15-20 minutes.

The third step is your plexiglass. Here you’ll need Pledge and a microfiber cloth. Spray the Pledge onto your plexglass surfaces and gently rub, being careful to only rub vertically, especially on your windscreen. This step takes 5-10 minutes and then you are done.

No water and soap seeping inside your fuselage or wing. There is no moving of your Mooney.

Once a year, you can apply Clear Coat if you want to go the extra mile. I use Plane Perfect Clear Coat. It’s amazingly inexpensive and works wonders. Apply Clear Coat to a freshly cleaned fuselage/wing. Spray it on and gently wipe it. Your eyes will hurt with the sun’s reflection. This step takes about 30 minutes once a year.

Glass Class

by Kevin Knight

I knew there would be a problem on final approach. The sun was hovering just above the horizon, perfectly aligned with the runway. Once I turned base to final, the view was like flying into a total white out. Bright light refracting across my plane's curved windshield illuminated every fault and shortcoming it had acquired over 40 years of faithful service.

Fortunately, no one else was flying near that non-towered field so I made a hard right turn in calm air, reversed course to avoid looking directly at the sun, and landed with it to my back.
Sitting on the ramp minutes later, I decided it was finally time to replace all the glass in my plane. Since a new paint job was also on the schedule, I had a few weeks to learn everything I could about the plastic "glass" we see through.

I started by calling trusted advisor and veteran pilot John Calhoun of Fresh Aircraft in Scottsdale, AZ. He sold 119 planes in 2021 and replaced some – or all of the glass in a number of them. In fact, his latest personal plane just had a new windshield, side and rear windows installed from Great Lakes Aero Products. The Flint, Michigan, company has an excellent reputation for product quality and is the OEM (original equipment manufacturer) for Mooney, Cirrus, American Champion and several other plane manufacturers. Great Lakes, sometimes called "GLAP", is the go-to glass company my A&P uses, because the fit, finish and customer service are consistently good.
Since competition benefits consumers, Cee Bailey's and LP Aero Plastics also make windows worth considering.

Great Lakes was originally the windshield division of Aircraft Components in the 1950s before pilot and Buick engineer John Zofko, Jr. acquired it in 1973. He got about 30 window molds, an oven, bandsaw and various tools. It was a natural fit since he headed Buick's special foundry and had an engineering degree from Carnegie-Melon.
As product lines grew, the company expanded from a 1,000 square foot manufacturing site to 22,000 square feet by 1989. It now has more than 10,000 approved parts, several hundred molds, and 15 employees producing more than 10,000 windows and wing tip lenses annually for most general aviation aircraft.

As an aerial photographer with broad shoulders, I was immediately attracted to their "bubble" windows for pilots and co-pilots, and large, rear window "cutouts" for photographers who want unimpeded views when shooting pictures.

When Is Bad, Bad Enough?

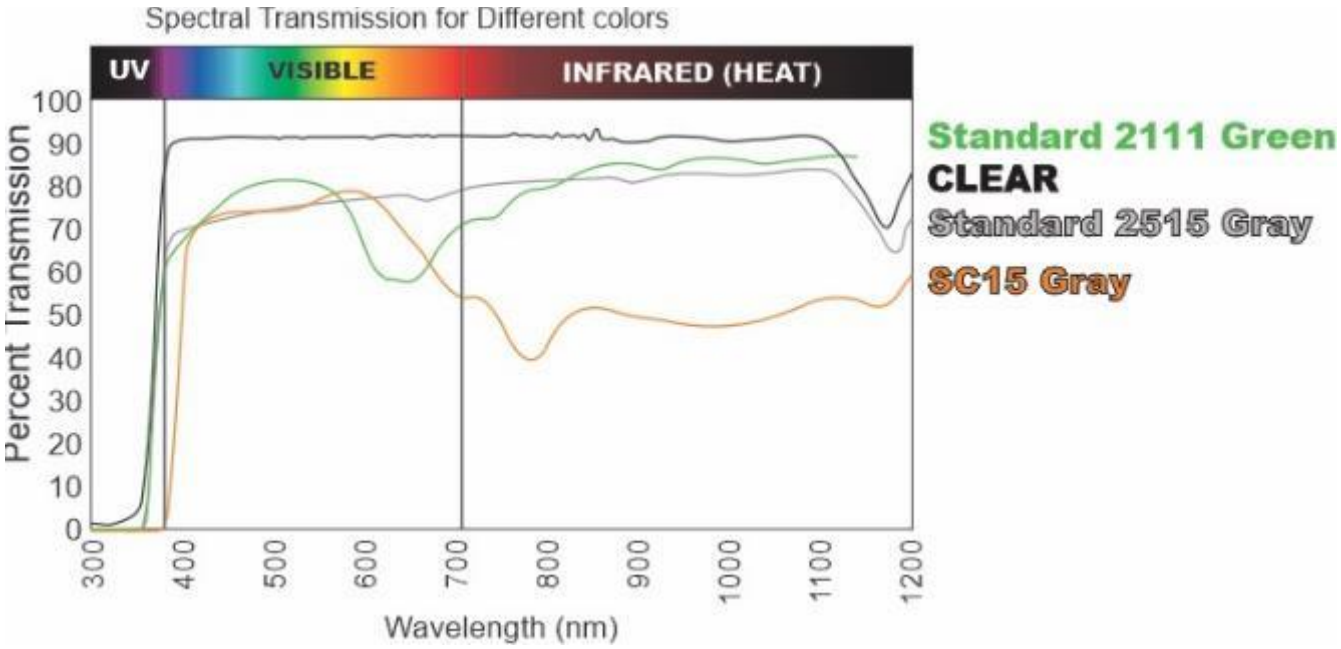
My kids used to call me "WCM", which stands for World's Cheapest Man. It took years to persuade them otherwise, since they attended private schools and excellent universities because my wife and I kept budgets. However, we don't like spending money unless it's warranted, and replacing windows isn't cheap, particularly when someone else is doing the work. If a plane has been hangared its entire life and the glass hasn't been abused by overzealous line people, previous owners, harsh chemicals or flights through dust storms, you're probably OK. However, if you look through the windows of a new plane, you might reconsider. Just like our faces tend to weather gradually, so do plane windows. The term you'll hear most frequently is "crazing", which is caused by little cracks beneath the surface. Fly into the sun like I did, and they'll reveal themselves. "Crazed" windows develop a milky appearance due to the plastic breaking down as molecules lose cohesion. They make the window more fragile and can't be realigned or polished out. "I know of a Cessna 310 on a landing approach that hit a goose with a new quarter-inch windshield, and it deflected off," said Great Lakes President John Zofko, III. "An old windshield with crazing would have had a big hole with blood and feathers."

What's Best and Why?

The top question customers ask when shopping for new windows is, "What color glass should I get?" Before answering that, it's worth learning why the "glass" in our planes isn't glass but Clear-Vu Polycast acrylic produced in Connecticut by a company called Spartech. Don't confuse Clear-Vu Polycast with Plexiglas, Acrylite or Lucite which are brand names for other acrylic products. It also isn't polycarbonate Lexan. That material can stop bullets, but scratches easily, can be harmed by gasoline and discolors from ultraviolet radiation. Spartech takes a colorless liquid called methyl methacrylate monomer (MMA) and cell casts it into sheets of various sizes and thicknesses. The clarity is equal to optical glass, with excellent impact resistance and good weathering properties. Your plane can perform well for decades, particularly if it is is hangared and product-appropriate cleaners and practices are applied. More on that later. Great Lakes maintains a large inventory of Spartech's Clear-Vu products, many of which are tinted shades of green or gray.
The most significant advance over the past decade is the creation of SC (solar control) additives that maintain optimal light transmission while dramatically reducing heat and solar radiation known to harm skin, eyes and interior materials like seats. Like Icarus, the higher we fly, the greater the risks from this exposure. Although SC glass costs approximately 25% more than clear or tinted products, I

was more than happy to pay that premium. The electronics in my panel are worth tens of thousands of dollars and don't like excess heat. SC can reduce the heat by 20 degrees F. I'm also a safer, happier pilot when comfortable, and anything reducing harmful, ultraviolet exposure to my aging skin is a good thing. Regarding the "best" tint color, John Zofko told me it depends on what you're doing. If you're just replacing one window, you'll probably want to match the others, assuming they're tinted. He also said once a new window is installed, pilots often realize how bad the rest of the windows look by comparison.

The original aviation tint was green. More recent planes typically sport gray tint. FAA regulations require the windshield or windows in front of the pilot have a minimum light transmittance of 70%. Great Lakes's standard green and gray tints have 75% light transmission. Windows behind the pilot can be darker. However, most pilots are at least 50 years old and medical studies have shown more light is needed to clearly discern things as we age. GLAP's dark gray tint has around 40% light transmission. I don't see any good reason to go that dark unless transporting vampires on a regular basis.



While researching my options, I came across a number of YouTube videos where people applied car tint materials to their plane windows from the inside or used tinted plastic sheets that had suction cups. A company that created some of those products sells a Cessna 172 kit for $999 and a Piper kit for $950. While I applaud the initiative those folks undertook, I'm dubious about how well those products will fare over time, so do your homework if those options look appealing. The vast majority of products Great Lakes manufactures are made-to-order and can take up to 30 days to reach customers, depending on product demand, weather, shipping and other considerations. It's thus prudent to plan ahead, particularly if a shop is doing the installation. (If I had lots of spare time and wanted to watch numerous YouTube instructional videos, I *might* consider replacing a side window on my own… but probably not. Replacing the windshield is better left to professionals. When ordering glass, I elected to go with a thickness greater than factory original. That reduces noise while reducing potential harm from a bird strike. The extra weight is less than three pounds more for the thicker

windshield. Producing each window requires the craftspeople at Great Lakes to use molds or templates specific to a plane. For windshields, a flat sheet is placed in an oven where it's heated to roughly 350° F before being shaped around a mold. Because there are some pronounced bends in my windshield, a visual inspection is done to confirm distortion is within acceptable limits.

Maintenance Matters

Scratched glass can often be repaired, but avoiding scratches is preferable. With that in mind, here are some helpful tips from Great Lakes leader John Zofko.

• Don't let line people clean your windows. The young men who pump gas often employ Conan The Barbarian zeal when wiping things down and might use a gritty shop rag or some problematic cleaning fluid.

- Do use cleaning products designed exclusively for airplanes. Great Lakes sells them, as does Sporty's and other aviation retailers. Anything with ammonia, such as Windex, is to be avoided. Although some folks like to spray Pledge on their glass, it hasn't been tested for aviation use, but has proven to be quite effective over the years.
- Ideally, use plain water to gently clean off windows with your clean, bare hand before drying them off with a fresh, clean microfiber cloth, NOT paper towels. Their subtle fibers can scratch.
- Spraying pressurized water might cause grit or dirt to scratch the surface. If you need more cleaning power, add a few drops of Dawn dish soap to the water, then be gentle and patient.
- If you don't have hangar access, some airplane covers can provide valuable protection if they're tightly strapped down to minimize movement. Great Lakes doesn't endorse covers since grit can get under them and scratch the windows. However, Bruce's Custom Covers are the best I've seen and are sewn, not glued. "Off-gassing" from glues and certain vinyl products have been known to undermine airplane glass.
- Keep acetone and other solvents far, far away from glass.
- If you use reflective sun shields when the plane is outdoors on the ramp, be careful attaching and removing them. The tabs or anchors can cause scratches.
- It's possible to remove scratches but be prepared and patient. If you can feel a defect with the pad of your finger, it's going to be lots of work. If you feel it with a fingernail, a repair is doable but be careful. The main problem is people try "fixing" too small of an area. That often leads to "lenses" being created on glass because too much material is removed.

Depending on the severity of the scratch, one that's an inch long scratch could require a 12 inch diameter area to work out. That could take around 30 minutes if you know what you're doing. Zofko cautions that an amateur with a polishing wheel on an electric drill could easily cause more harm than good.

There are non-abrasive, scratch-filling creams which can take care of some problems. Check the websites at Great Lakes, Sporty's and others for product descriptions and pilot reviews. Great Lakes also offers a "Scratch-off" kit which many customers have had success using to take out minor scratches and abrasions.

My eyes aren't what they used to be, but at least new glass on my airplane's windows makes them seem ten years younger. Plus, with the solar control additive, I'm cooler and safer. Although the expensive electronic "glass" in my instrument panel is great, the crystal clear glass I'm looking through when flying, but no longer seeing, is even better.

Wisconsin Aviation Expands Aircraft Interiors Service with the Acquisition of Jaeger Aviation & Its Spatial Interior

Wisconsin Aviation, Inc., announces the expansion of its aircraft interiors department with the acquisition of Jaeger Aviation, based in Willmar, Minnesota.

With its roots stemming back to 1945, Jaeger Aviation's sixty-four years of specializing in Mooney Aircraft sales and service made a new interior design for the vintage Mooney a natural. The "Spatial Interior," as this new design was labeled, allows for a simpler and better way to increase cabin space and expedite service while giving the Mooney a look it deserves. The Spatial Interior, now 15 years in the making, is recognized worldwide.

For more details, visit:

www.WisconsinAviation.com or www.JaegerAviation.com

Wisconsin Aviation's aircraft interiors department, located in Watertown, Wisconsin (RYV), accommodates all types of general aviation aircraft. Its services include minor repairs to complete customized interior replacements. The Jaeger Aviation products and experience will help continue to grow this department.

Wisconsin Aviation offers a complete line of general aviation services including air charter, aircraft maintenance, avionics repair and installation, flight training and aircraft rental, aircraft management, aircraft brokerage, and fueling services. The corporation has locations in Madison, Watertown, and Juneau, Wisconsin.

For more information about Wisconsin Aviation, send email to Interiors@WisAv.com or call 920-261-4567.

Possible Turn? Impossible Turn? Or?

Twenty Second in the series by Ron Blum

There has been a lot of discussion in aviation circles recently about the "impossible turn." Some pilots and CFIs have even come out and called it the "possible turn." The question being posed that solicits these responses is: "At what Above Ground Level (AGL) altitude can an airplane make it back to the runway if the engine fails on takeoff?" This is the wrong question to ask because the answer is different for every model of airplane, flown by pilots with different skill and comfort levels. If this question is your only question, you're not asking yourself enough questions. Here is the question you should be asking yourself: "Where am I going to land this airplane if the engine falters?" There should be multiple answers depending on at what AGL altitude the engine falters. There are also a multitude of variables affecting those answers. Each takeoff is different depending on the conditions.

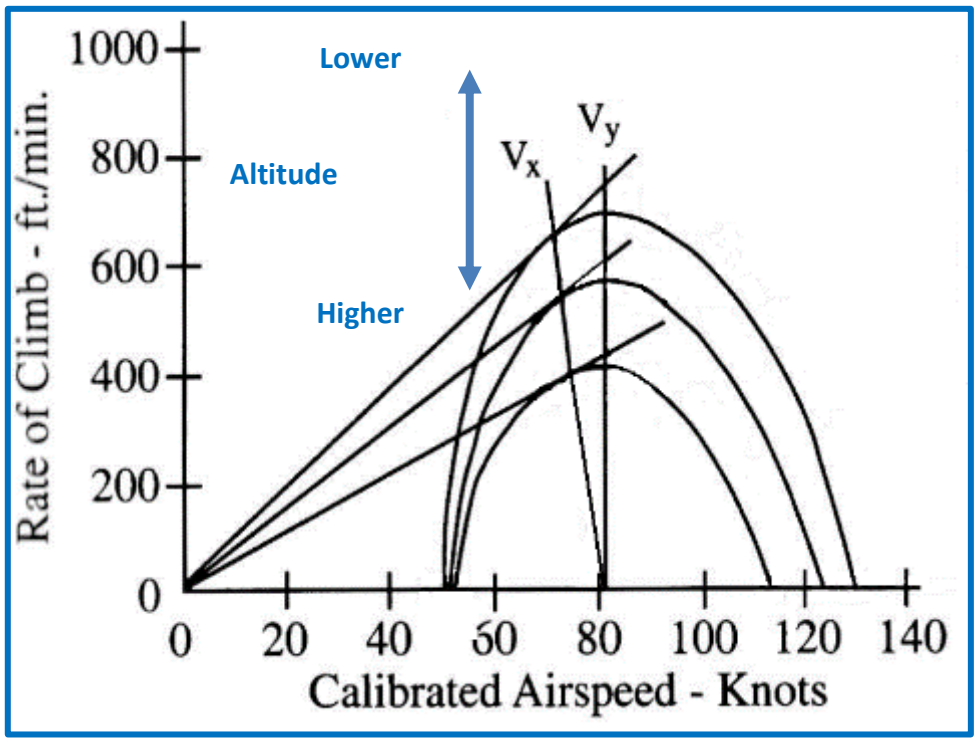


Figure 1 – Powered Rate of Climb versus Airspeed

We'll start by saying that the answers to the above question vary with every airplane, each pilot and their current piloting skills, the airport and its surroundings, and weather conditions at the time of takeoff. All of these answers should be known, (and firmly in memory), BEFORE the throttle is advanced. The answer isn't a simple: "Yes, I can do the impossible turn" or "No, I can't do the possible turn."

So where do we begin? We should do this "pre-flight planning" where we do the rest of our trip planning – in the FBO or at home before we go to the airport. Why? Because in those locations we are not in the heat of the moment with our adrenaline pumping and with reduced useful brain power. To begin, let's visualize a takeoff sequence, step by step.

If the engine fails just after all the pre-takeoff checks have been completed, brakes are set, power comes up and brakes are released, simply apply the brakes again to bring the airplane to a stop on the runway. The next course of action would depend on how the engine faltered. Did it cough? Did it just quit? Did it throw parts? Easy answer.

If the engine falters during the takeoff roll (still on the ground), the best answer is to bring the engine to idle, if it's not already stopped, and apply full braking. It's better to go off the end of the runway and maybe through a fence than to force the airplane to get airborne and potentially stall. STALL is BAD. DON'T STALL!

If the engine falters after the airplane is airborne, how long do we continue to land straight ahead? Here is where those other conditions and your pilot skills play a factor. Is the runway 2,000' or 5,000' long? Is the wind calm or is there a 20-knot headwind? Are you climbing at V_X, V_Y or $V_{cruise\text{-}climb}$? These conditions will all factor in the decision for a straight ahead landing. Longer runways, more headwind and a V_X climb will all allow for a higher AGL decision altitude at engine falter to continue to land straight ahead. Reference **Figure 1** above. A climb at V_X will get the airplane higher in a shorter DISTANCE. A climb at V_Y will get the airplane to a higher altitude in a shorter TIME, but further down range. Make all of those decisions before the throttle is advanced.

So far, as an example, we have defined our first two decision altitudes: 1) On the ground, full braking to a stop and 2) Up to 100' AGL, we are landing straight ahead on the runway. DON'T STALL! Stall is BAD!

What do we do from 100' to X,XXX'? More of those other conditions play bigger roles. Does the airport have multiple runways? Can a landing be made on (or near) a longer, parallel runway or taxiway? Is there a crosswind runway or taxiway that can be utilized? Is there hospitable terrain near the airport? Landing on the airport environment typically has advantages of being fairly flat and without obstacles. Did we allow the airplane to drift with the wind, making the turn back to the runway shorter? STALL is BAD. DON'T STALL!

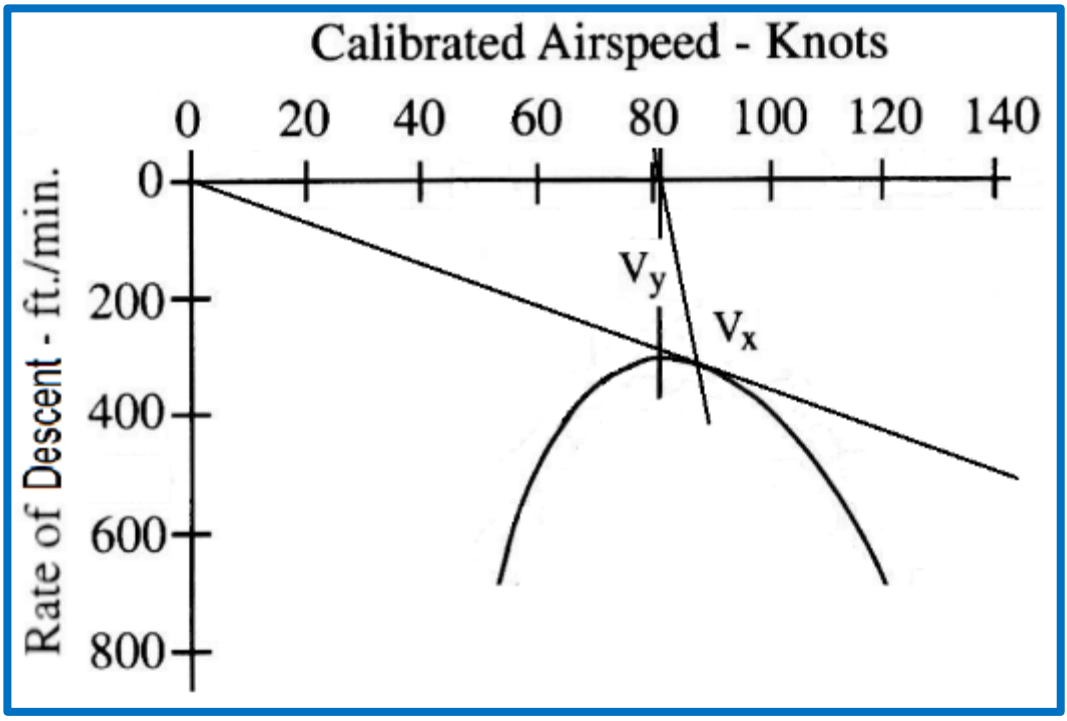


Figure 2 – Gliding Rate of Descent versus Airspeed

Figure 2 shows without power, V_Y is the longest TIME aloft. V_X is the least angle of descent or the furthest DISTANCE per altitude. Note: V_X is faster than V_Y when gliding.

If you haven't noticed yet, "STALL is BAD. DON'T STALL!" and "DON'T STALL! Stall is BAD!" have been repeated several times … and will be, going forward. Why? Engine failure is not a reason to stall the airplane. Not stalling the airplane greatly increases the odds of survival, our primary goal. One would be surprised at how many fatalities are caused by stalling the airplane after an engine failure. Engine failure is not a good reason to allow the airplane to stall. Technically, the airplane will not stall unless the pilot controls it into a stall.

You should continually preplan where you are going to land the airplane after engine failure.

1. Practice V_X and V_Y climbs with the engine brought to idle at altitude to know how much you need to PUSH forward on the yoke.
2. Practice turnback scenarios at a safe altitude.
3. Don't stall the airplane. PUSH!

Now for a selfless plug. I would love to see at least a few of all y'all at Sun-N-Fun! Here's a list of the forums that I will be presenting this year. There are four different topics with each one being given two times. The presentations are very open, so bring enthusiasm and LOTS of questions! We'll both learn.

Sun-N-Fun Forums

Tue. April 5	Wright Gliders, Airplanes and Another Glider?	1:00 PM	CFAA-12	
Wed. April 6	Mooney (Gen Av) Aerodynamics	9:00 AM	CFAA-12	FAA/WINGS – FAA Credit
	Demythifying Stall/Angle of Attack	1:00 PM	CFAA-06	FAA/WINGS – FAA Credit
Thu. April 7	Loss of Control	12:00 PM	CFAA-04	FAA/WINGS – FAA Credit
Fri. April 8	Wright Gliders, Airplanes and Another Glider?	1:00 PM	CFAA-12	
Sat. April 9	Mooney (Gen Av) Aerodynamics	9:00 AM	CFAA-12	FAA/WINGS – FAA Credit
Loss of Control		11:00 AM	CFAA-04	FAA/WINGS – FAA Credit
Demythifying Stall/Angle of Attack		1:00:00 PM	CFAA-06	FAA/WINGS – FAA Credit

Got a topic? Email me at solutions@blueontop.com. Until next time keep the blue on top.

Blue on Top

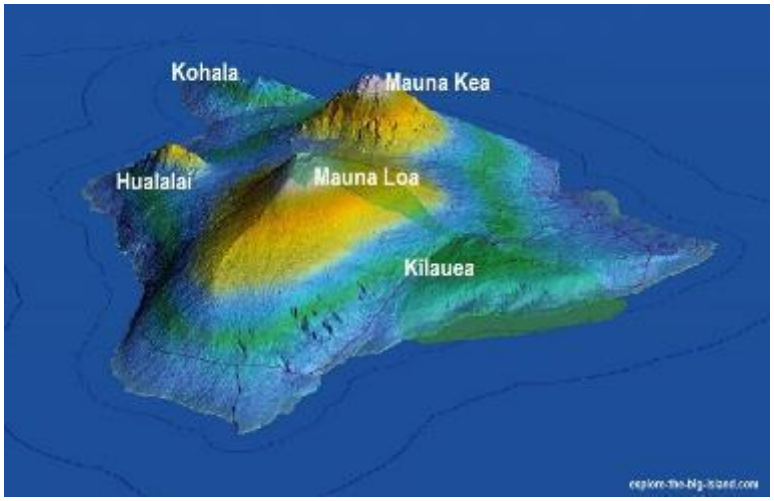
Ron Blum is an aeronautical/astronautical engineer with a 35+ year career managing general aviation Flight Test and Aerodynamics departments from shore to shore and border to border. He was Chief Engineer of the Mooney M-10 in Chino, CA. He founded Blue on Top LLC, providing engineering and management consulting, Flight Analyst DER services and keynote speaker.

Pilot or Tour Guide
Is it Safe to be Both?

by Jerry Proctor

There I was… Many, if not all aviation stories begin like this. The reaction of the audience is either, "Oh dang, here he/she goes again" or, "Oh boy, can't wait for this one!" You be the judge here.

So, there I was, a young Army Captain, at 8,500', the PIC of an Army Huey helicopter flying a nickel ride for five crew chiefs at a training exercise on the Big Island of Hawai'i. It was the usual boring weather, with beautiful clouds, great temperature, and pure paradise.



We took off from the western side and then flew toward the southern tip of the Big Island. As we were coming around the southeastern part, I started a steady climb to 8,500'. Then the highlight of the flight, flying directly over the middle of Kilauea Volcano. We were four thousand feet above it, but it loomed large because the crater is nearly three miles across.

We always flew with the cargo doors rolled back and I was rejoicing at the reaction of my passengers. As I was complimenting myself for such a wonderful experience, it happened.

I noticed four VERY BAD things!

- First, I had slowly and inadvertently pulled my collective (torque) to 45lb. 50lb is the absolute max and with the Vietnam era Hueys, you never wanted to go there.
- Second and third, my turbine RPM and thus my rotor RPM were dropping
- Fourth, my airspeed had slowed to 60kts. HOLY %@#!!!

Fortunately, my training kicked in and I lowered the collective and lowered the nose to build the speed back to the desired 90 Knots. The numbers recovered and I beelined out of the middle of the crater. This was my biggest Ah-Ha moment regarding pilot vs. tour guide. So, let's transition to giving rides in a Mooney.

We fly the most beautiful and admired General Aviation (GA) airplanes. Who does not want a ride in a Mooney? We Mooney pilots are constantly receiving a gentle nudge or an outright ask, “Can I go for a ride?” Many times, we proudly answer, “Yes.”

So, when we give that ride:

First, do you talk to them throughout the preflight?

Question: Are you really doing a preflight or just gabbing about how you would do it, if you weren’t just describing it?

Next, I hope you conduct a passenger briefing, preferably from a written checklist. If not, trust me, you are going to forget something.

Then comes the getting in, securing, and plugging in. It is never simple.

Now, you open your Before Starting Engine Checklist.

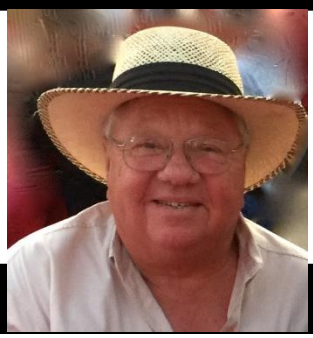
I am certain you are again describing what you do, in various detail. However, are you really doing what is required? Did you reach over to set that second altimeter, or did you double check your transponder squawk? Not always, huh.

Well, you now have managed to get to the end of the runway, and it is time to take off. Oversights on the ground are now amplified and mistakes in the air can have major consequences.

Using my example, where I made an autorotation hell on earth into an active volcano crater, are <u>you</u> really being a pilot or a show and tell tour guide? After my awakening over the Hawaiian volcano, I changed my act. Now, when giving a ride, I am constantly reminding myself that I am THE pilot and a very, very part time tour guide. I only do noticeably short talking bursts to passengers and then I am back to being a full-time pilot. Every couple of minutes, I do a more detailed look at where I am, what is going on, carefully examine the instruments, airspeed, engine – the whole list. I am not very entertaining, and I let the passenger just enjoy the view.

We are kidding ourselves if we think that telling them all about the details of the plane is value added. It is not. It is going over their head. Keep it pleasant, simple and be a pilot that is far, far ahead of a tour guide.

So, be proud, but be smart when giving that nickel ride in your amazing aircraft. JP



MOONEYMAX 2022

MAXIMUM SPEED - MAXIMUM SAFETY - MAXIMUM PERFORMANCE

Mooney SB M20-317
Electric standby vacuum pump systems failures.

Most all long body Mooney's, M20 R, S and M models, without the G1000, have an electric standby vacuum system mounted in the avionics bay.

Figure 2 Standby vacuum system

Recent failures of these systems have been caused by the deterioration of the Tygon hose that connects the vacuum pump to the vacuum manifold on the firewall.

Figure 1 Tygon hose

The Tygon hose shown in *Figure 2*, is routed behind the pilot side interior panels and is only visible near the firewall connection and at the rear mounted vacuum pump. The hose is a yellowish colored vinyl type tubing.

Figure 3 Contaminated

Over the years the Tygon tubing begins to melt, and it secretes an oil-like contaminate. This oil makes its way into the vacuum pump during operation and will seize the pump, making it inoperable. *Figures 3, 4, 5*

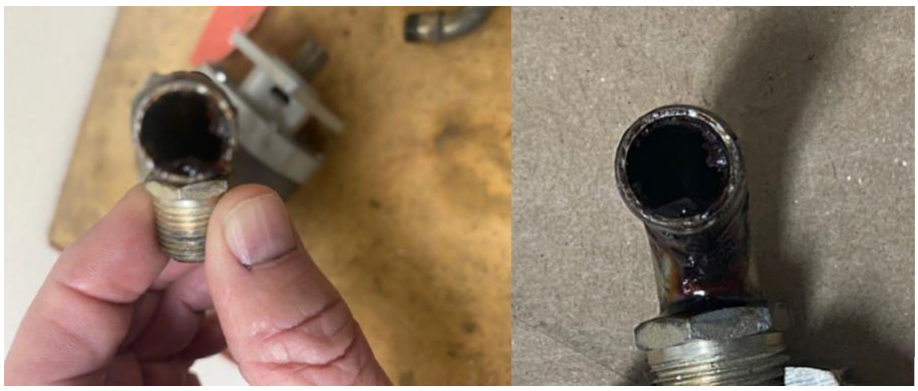


Figure 4 Contaminate

We have found dozens of systems to be in this condition. Mooney has released Service Bulletin M20-317 to address this problem. It incorporates the replacement of the Tygon hose with a standard MIL-H-5593-10 vacuum hose.

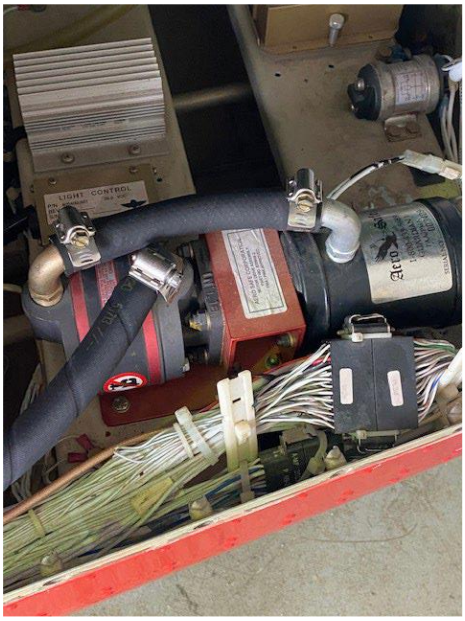
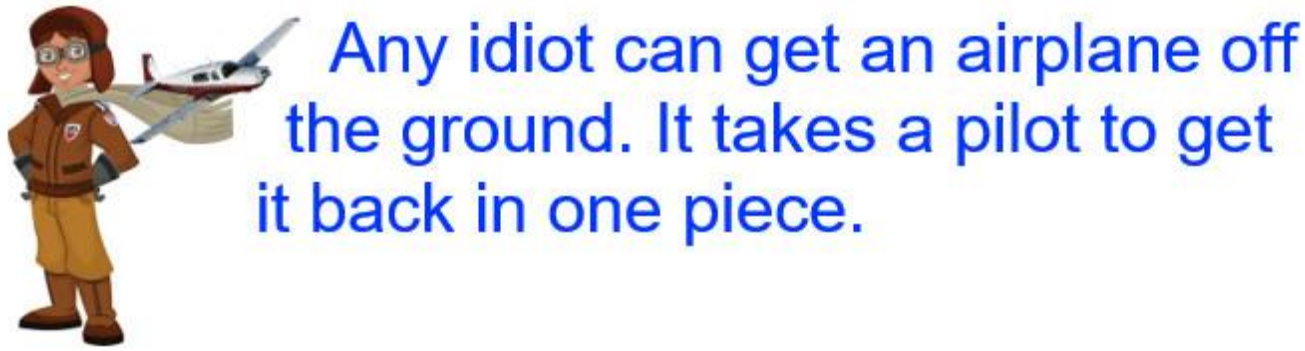


Figure 3 Pump with MIL-H-5593-10

We encourage all owners of these models to check for hose deterioration. The service bulletin can be found on Mooney International website https://www.mooney.com/en/Support.html. Click on technical publications and select your model. **M20-317** is the same for all models.

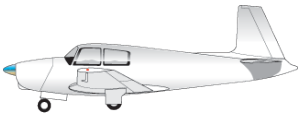
Don Maxwell Aviation Services, Inc.
www.donmaxwell.com



There is a big inventory of serviceable airframe parts, including wings for M20C, E, F, G, J, K & R models, empennage assemblies, fuselages, rebuilt controls, rudders, elevators, ailerons, flaps, cowls, engine mounts, landing gear and small parts.

Paul Loewen is offering them online, or by phone. The website is www.LoewensMooneySalvage.com, and he can be contacted in Lakeport, California at **707 263-0462** or by cell at **707 272-8638.** Email is PaulLoewen98@gmail.com. The used inventory is also still available through LASAR Parts at 707. 263-0581

Mooney Maintenance



Search Mooney's new website for Service Bulletins (SBs) and Service Instructions applicable to your Mooney

Click here

Download and search LASAR's Airworthiness Directive (AD) Log – all models

Click here

LASAR
Fanatically Mooney. Exceptionally Fast.

Ask the Top Gun

Tom Rouch
Founder of Top Gun Aviation, Stockton, California

Send your questions for Tom to TheMooneyFlyer@gmail.com

I'm a new Mooney owner and have questions on corrosion.

1. Where are the places I should check for corrosion?
2. What can I use to prevent/reduce corrosion?

Tom's Answer

I could write a book on dealing with corrosion but will try to be specific to MOONEY as you asked. The most impotent area to protect is the main spar and secondary spar in the main wheel well areas.

You can keep the airplane clean for major protection. Where the plane is located is most important and the worst cases I have dealt with, for obvious reasons, were Florida planes. I had a severe case on a late model J that had severe corrosion in the secondary spar in the aft of the wheel well. We found it on an Annual Inspection. We discovered numerous popped rivet heads. The rivets were corroded so bad that the rivet heads were popping. Sadly, the airplane wasn't ten years old when it came to the west coast. Since the plane was still of value, we replaced that spar at a cost of over $25,000. Corrosion of the main spar can kill the plane since it is not possible to replace that spar and it is very limited as to the repairs you can do. To replace that spar, we had to remove the wing from the fuselage and un-rivet the inboard wing skins to get to the spar. This took many man-hours.

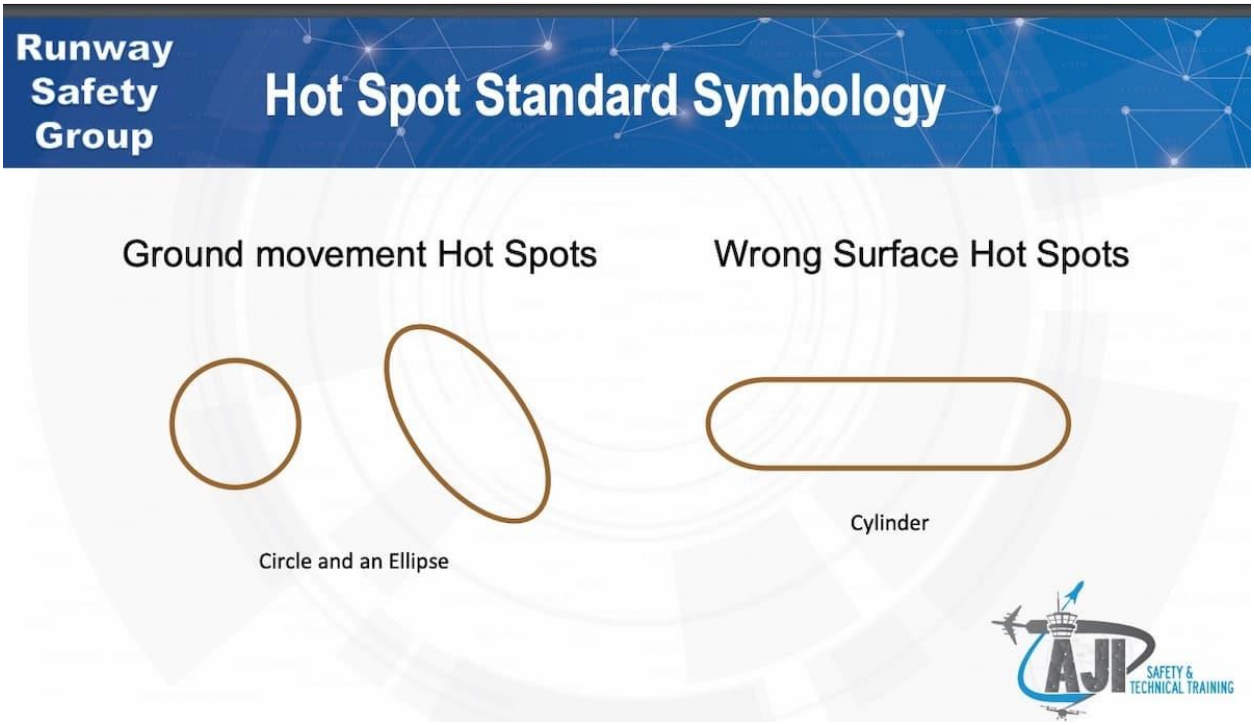
As I said earlier the main thing you can do is keep the plane clean. This is easy to do with a hangared plane, but more difficult with one sitting outside. I have seen corrosion build up on the trailing edge of flaps, ailerons and elevators, especially near the coast where the fog will let salty water drain down the trailing edge, accumulate and start corrosion. Again, the best protection is keeping the plane clean. The wheel wells are the main area to inspect. If bare areas of metal are found, then spray the area with a rust preventative spray. In the old days we used zinc chromate but there are several good products available. The Mooney has numerous joints in the flight control system since they use rods instead of control cables. Many owners only get these lubed at the Annual Inspection and that is not enough. There is actually an AD on the early models that require a lube every 100 hours and through the years I have done many Annuals where this AD is past due because the plane flew over 100 hrs. after the last Annual. I have dealt with control joints rusted solid and even broken on the flap rod end.

All of this prevention can be done at very little cost. It just takes some time. If you wash the plane every few months, at least it will look clean.


GO MODERN
GO MOONEY
GO
MARK 21
N7123U

May 19, Hot Spot Changes

Hot spot identification is essential for pilots, particularly during preflight planning and while taxiing on airport surfaces. However, hot spots are currently depicted in a variety of shapes with no particular meaning. Well, that's about to change! On May 19, hot spots on the FAA's aeronautical charts and publications will have three shapes with two distinct meanings. Circles and ellipses will depict ground movement surface safety risk areas like taxiway/runway configurations and intersections. A cylinder will be used to highlight runway confusion areas, mitigating wrong surface event risk areas such as offset parallel runways.



A new visual enhancement tool will help pilots with runway confusion at certain airport locations. These new Arrival Alert Notices offer a visual aid to pilots to enhance situational awareness when a Wrong Surface Hot Spot related to Arrivals is identified.

Senator and general aviation advocate James Inhofe, R-Okla., will retire from the U.S. Senate

Senator Inhofe's retirement will be effective Jan. 3, 2023. A pilot with over 11,000 flight hours logged, his aviation-related efforts have included the support and introduction of legislation to reform the medical certification process for recreational pilots, raise the mandatory retirement age of commercial pilots from 60 to 65 and enhance legal protection for pilots. Inhofe also introduced legislation allowing FAA certificate holders to immediately appeal emergency certificate revocations to the National Transportation Safety Board following the FAA's revocation of Bob Hoover's medical certificate.

"As an accomplished aviator, Inhofe brought a deep appreciation and understanding of the general aviation industry to crucial policy debates on Capitol Hill," the National Business Aviation Association (NBAA) said. "Inhofe's passion for aviation has forged significant gains for the sector, including the groundbreaking legislation that led to the direct passage of the General Aviation Revitalization Act, which was passed during his time in the House of Representatives."

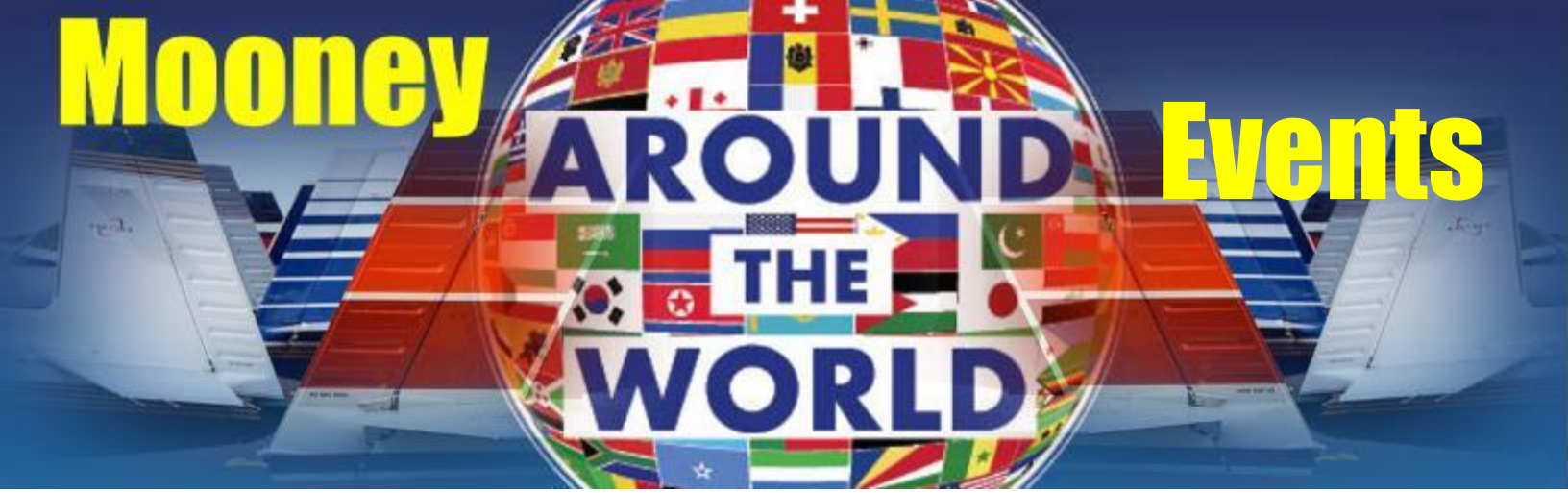
Inhofe, 87, is currently the longest-serving federal elected official in Oklahoma history. In addition to his time as senator, he has served in the U.S. House of Representatives, the Oklahoma House and Senate and as mayor of Tulsa. A special election will be held during the 2022 midterm elections to fill Inhofe's seat for the remainder of the term.

uAvionix tailBeaconX Trade-up Program to meet 1090 ADS-B Requirements

uAvionix has announced the Trade-Up to tailBeaconX Program for aircraft owners desiring to upgrade to a Space-Based Mode S 1090ES ADS-B Transponder for mandate compliance and operating flights in 1090 MHz airspace.

With this limited-time Trade-Up Program, current owners of a uAvionix skyBeacon, tailBeacon, or echoUAT can receive up to $1200 trade-in credit towards a TSO certified tailBeaconX Mode S ADS-B Transponder.

For details on the program or to begin the process, visit the tailBeaconX trade-up website.



Florida Mooney Lunch Group	*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* April 9: Flagler (FIN) May 14: Sebring (SEF)
MooneySafety.com	**2022 Events** Apr 22-24: Santa Maria, CA (SMX) Jun 3-5: Denver, CO Sep 16-18: Oshkosh, WI (OSH) Oct 21-23: Redding, PA Sign Up at https://www.mooneysafety.com/ppp-registration/
MOONEYSUMMIT	**Learn more at** https://www.mooneysummit.com/
Australian Mooney Pilots Association	March 17-21, 2022: Annual Gathering of Mooneys - You will be able to visit the Coonawarra wine region (where life is a cabernet), Princess Margaret Rose caves, Dingley Dell (former home of Adam Lindsay Gordon), Piccaninnie Ponds, the Nelson Aeroplane Company and lots more. September 9-12: Spring Fly-In to Merimbula – More details later **Learn more at** https://www.mooney.org.au/
EMPOA	**Learn more at** https://www.empoa.eu/index.php/en/
Other Mooney Events	June 3-5: Walla Walla Fly-In by Henry Hochberg. Wine, Food and Fun. Hotel room block at Whitman, 866-826-9422. Contact Henry if you need any additional info at aeroncadoc@comcast.net. **CLICK HERE** to register for free

TMF PRODUCT REVIEW

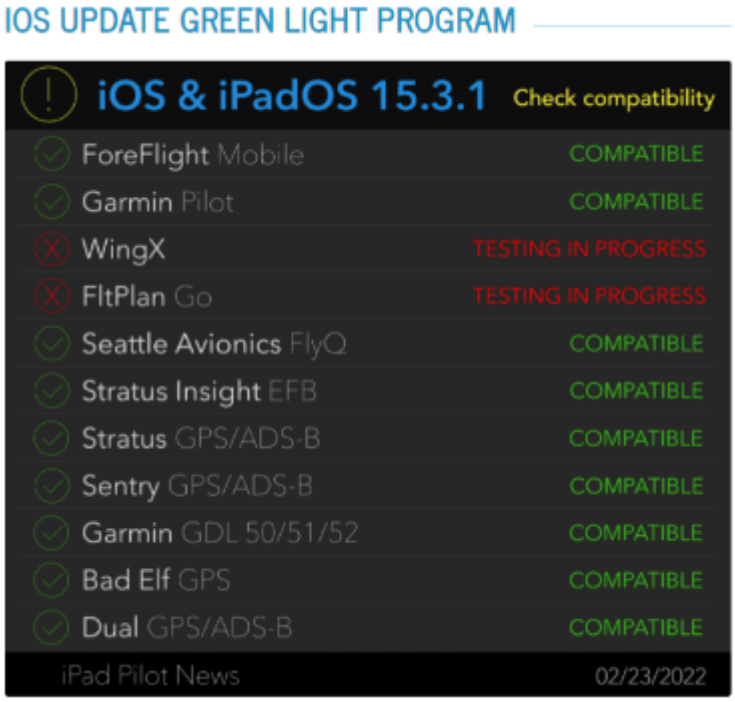
iPad Pilot News

[iPad Pilot News] has been around for a while and we find it very useful.

SPORTY'S iPAD PILOT NEWS

It is filled with lots of useful information and tutorials on using your iPad while planning and flying. Keep up to date on the newest Apps for iPhone and Android devices. Also keep up on the latest updates.

One section we find very useful is the iOS Green List section. This lets you know when your favorite App and/or Device is "cleared" for the latest iOS update. [CLICK HERE] to go to this web page.



Additionally there are tips and tricks on using your device for all sorts of uses. Currently, there is an Annual Checklist function.

Want to know about the latest Accessories? This is a fairly regular feature and pretty valuable if you use your iPhone and/or iPad. [CLICK HERE] to see the current accessories.

Lastly, the site is filled with videos showing you how to use dozens of apps and devices to enhance your flying experience.

Video: comparing the top 4 iPad kneeboards

We hope you find this useful. iPad Pilot News is a valuable and free website.

Parts for Sale

Sun Visor set for 1968-1999 Mooney (my is a 1966) never used, in original packaging asking what I paid

Purchased From Chief Aircraft Search results for: 'Mooney sun visor' - Chief Aircraft Inc. $459.00

Sunvisor Mooney, 1968-1999 Models, Rosen 13" x 7"

The Rosen "NSA" Sun Visor system is fully FAA PMA'd and STC'd for many single and light twins. Distortion free dark gray lens tint reduces 94% of the glare, filters out most harmful UV light, and reduces 70-80% of the infra-red heat rays. Visors have multimotion capability and follow early morning or late afternoon sun.

Brackets are machined aluminum and are anodized black. Oversized visors also increase safety margin while in close proximity to airports and heavy traffic areas.

Contact: dingramkc@icloud.com

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)

Items 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 $3,999

New never used aircraft wheel stand
Used when tire and rim assembly is removed. This stand slides onto the bare axle to hold up the aircraft for safety and to avoid damage to bare axle. This stand is adjustable for different heights.

Price $75

1990 M20M Mooney Bravo N756TB 27-0047 for sale

• Garmin G600 • Garmin GTN750 (with PTC Switch) • Garmin GTN650 • Garmin GTX33ES • Garmin GMA35 • Garmin GDL69A • Garmin GDL88 • STEC 55X Autopilot with optional remote annunciator • EDM930 • L3 Avionics ESI2000 • L3 Communications SKY497 • P2 Audio Advisory System TTAF: 2874 TSNEW:1291	• Davtron M803 • CO Guardian model 452 • Precise Flight Pulselite • LoPresti Boom Beam for both Landing and Taxi Lights • Gami Injectors • ACK Technologies E-04 ELT • Monroy Extended Fuel Tanks • Painted 4/2008 • AeroDynamics Vortex generators • Prop Overhauled 9/2016 • Turbo Overhauled 2/2014

Eric Trehus
RHV – San Jose CA
etrehus@gmail.com
(408) 644-2238
$260,000.00


Rusty Pilot or Old Pro
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