

The Mooney Flyer

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

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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.



The Mooniac Community

I have owned a Mooney since 2002. First, I owned a 1965 M20C with the Johnson bar and hydraulic flaps. What an amazing aircraft. In 2009, I sold it and moved from a short body to a long body, purchasing a 1999 M20S Eagle. I still miss my C, but totally love the Eagle. I can fill the cargo bay with our folding electric bikes and use the back seat for my wife's entire wardrobe, which she brings on our Mooney trips. I can fill the tanks and have weight to spare.

But this piece is more about what has amazed me as much as the Mooneys I fly; the Mooney Community. I refer to them as Mooniacs.

We are cultish about our Mooneys and our camaraderie. Mooney owners are a special breed, as special as the airplanes we fly.

We are the most sociable group in the general aviation fleet. Personally, I cannot resist meeting a Mooney pilot. Our friendship comes naturally.

Almost every week, there is a Mooney fly-in hosted by a random person or organization. Fly-ins are amazing for two reasons: 1) you get to meet new Mooniacs, and 2) it might encourage you to fly to a destination you would not otherwise go to.

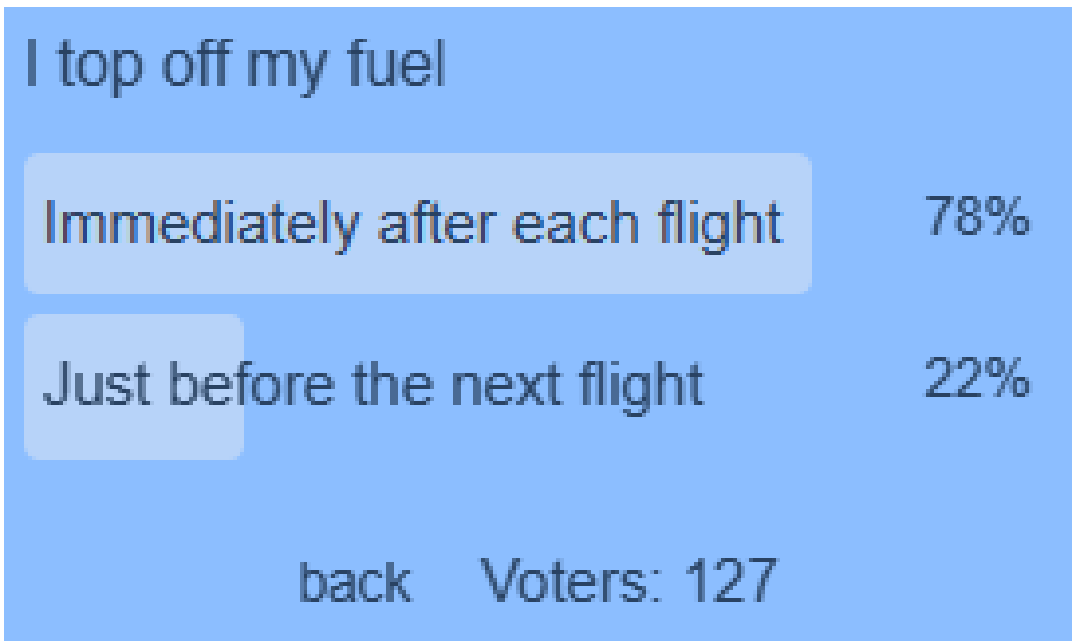


Another great Mooniac tradition is that our best meetings are held by other Mooniacs. In this case I'm thinking of MooneyMax and the Mooney Summit. These are also fantastic because you get to meet other Mooniacs and Mooney experts, and you learn more about flying, modifying and maintaining your Mooney. It's a win-win-win.

The Mooney Service Centers are great as well. In addition to their years and years of Mooney-specific expertise, they also participate in the Community. I think of Don Maxwell Aviation (Longview, TX), Top Gun Aviation (Stockton, CA), and Advanced Aircraft Services (Troutdale, OR). In addition to being top MSCs, they participate in the Community. Don, Paul & Jan Maxwell run MooneyMax, Top Gun's Tom & Mark Rouch contribute regularly to The Mooney Flyer and have hosted some big Mooney gatherings in South Lake Tahoe. We are blessed with the best.

And there is us, The Mooney Flyer. We're in our eleventh year of publishing and have not missed an issue in that time. We hope we are bringing value to our Mooniac community. It's Jim's and my way of giving back to such an amazing group.

I am proud to be a member of the Mooniac community and cherish it every day. I know you probably feel that way, too.



Next month's poll: "I Have Flown my Mooney to"

[CLICK HERE](#) to vote

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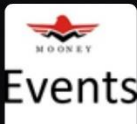
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You can also go to <https://themooneyflyer.com/> and click on CFIs – (located in the top menu).

You can also click on the CFIs icon, found in the website's right column menu.



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*Letters to the***EDITOR****TheMooneyFlyer@gmail.com**

Can we please just bury the “70% at 50%” rule of thumb, especially as described in the October 2023 issue of *The Mooney Flyer*? If you’re at 70% of your takeoff speed at 50% of the runway length, you will not be off the ground at the end of the runway. This is even assuming about the most optimistic acceleration of your airplane—that it has been and will continue to be constant rate. (In reality, your acceleration will almost certainly decrease as airspeed increases.) And this so-called rule both is mathematically inaccurate and does not take into account coming to a stop on the remaining runway if you abort at that 50% point.

Catherine Cavagnaro wrote an excellent article, “Reality Check,” going into more details on this. See the *AOPA Pilot* archives for May 1, 2023.

If we really want a simplistic “there’s not enough runway left” rule, try 75% of takeoff speed at 40% of the runway’s length. At least then, you’ll actually be airborne before the runway ends.

But, please, let’s stop publishing articles promulgating this dangerous so-called rule.

Alan M

Editor Note: *We wrote that we disagreed with this Rule of Thumb, so we are in agreement with this Letter to the Editor. We do NOT think you should use/rely on this Rule of Thumb.*

Went to Port Townsend (OS9) on Saturday to attend a joint EAA fly in between the Sequim and Bremerton chapters. The object was to tour the Port Townsend Aero Museum and learn more about their program that works with young people, ages 14 to 18. They have 17 kids enrolled at a time and they all work hands on, restoring aircraft, working the front desk, and yes, learning to fly. They have the opportunity to obtain their private pilot certificate without any charge. They also get to fly a variety of aircraft, although the basic instruction is done in a D 172. The Museum has a really nice collection of GA aircraft, many of which are flyable.

While there, I got to see two really rare Mooney aircraft, a 1970 Mooney Cadet and the Aercoupe with the Mooney tail. Only about 50 were manufactured and the one that flew from Bremerton is one of only two on the West Coast. The other plane was a Mooney Mite that the Museum has on display, hanging from the roof. If you would like to have photos of both, I'll be happy to send them.



Dave B

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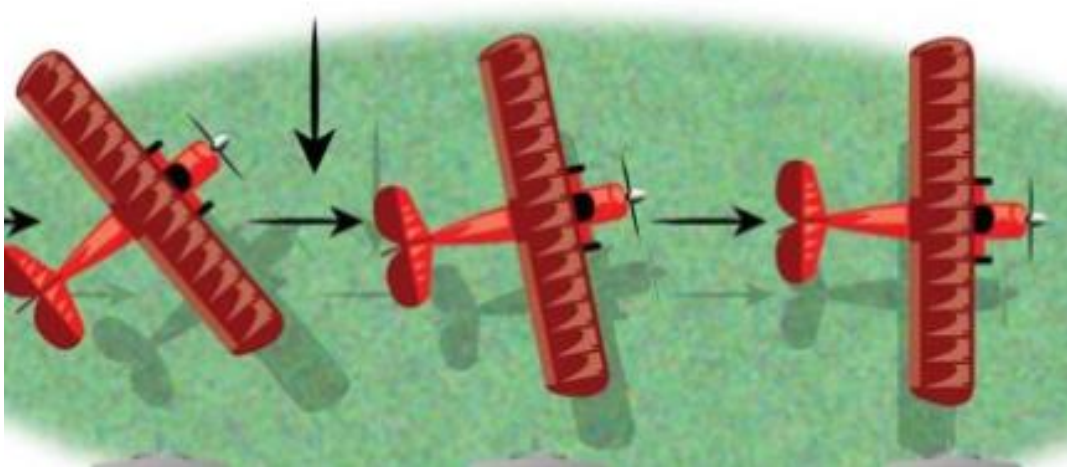


Perfecting Crosswind Landings in Your Mooney



Phil Corman
Co-Editor

I have found that Mooneys handle crosswind landings very well. I'm sure there is an aerodynamic explanation for why this is true. Perhaps it is due to heavier wing loading, a laminar wing, or superior pilot technique.



Back when I had my 1965 M20C, my maximum crosswind landing was performed in Calexico, CA when I was returning from Alamos, Mexico. It was my first

return to the USA from another country. Due to headwinds, it took more time and fuel to get there. I had enough fuel, but not much more than a healthy reserve. I also thought I had to land in Calexico because that is what I had filed with Customs for re-entry to the USA. Because I was slightly low on fuel, I thought I should land where I had filed for customs. Well, it was a 26-28kt direct crosswind. Yikes! Ahead of me, an M20J had just landed. I asked for a PIREP and after several seconds, the J pilot transmitted, "Sporting." On short final, I saw the runway through the pilot-side window. The landing had a significant pucker factor but was smooth and uneventful. I gained a greater love my C.

What can we do to perfect our crosswind landings? Here are a few suggestions.

Wind Check

If you are landing at an uncontrolled field, listen to AWOS several miles out. Pay attention to see if the winds are varying over time. Are they changing directions or speed? Are they variable? Are they all of the above? At a towered airport, ask for a "wind check" as you turn to final.

Another smart thing to do is plan a longer final approach. Why? This gives you more time to assess the crosswind. Can you hold the centerline on final? If not, consider a go-around or perhaps you should fly to another airport with more favorable winds.

I subtract 3 - 4 knots from my approach speed for every 300 pounds under gross weight. This keeps me at 1.3V₅₀ and keeps me from floating into the next county.

Fly the Right Airspeed

Establish your correct approach speed early in the pattern and “trim” for that airspeed. I like that because I no longer have to pay as much attention since I’m trimmed for the desired approach speed. Remember that if you are lighter, (under max gross), your approach speed also is lower. This is even more critical in a crosswind because you do not want to float any longer than necessary.

Flaps

Most of my landings in my Eagle are full flap landings. Sometimes with a crosswind, I’ll still land with full flaps, but in a stronger crosswind, I like partial flaps. This is because I want to stick the landing and don’t want the extra lift of full flaps. I think the decision here is up to the PIC, considering what the POH may advise, etc.

The Crab

To ‘crab’ is to point the nose of the plane into the wind, either to the right or the left. The plane flies sideways, similar to how a



crab walks. When the pilot is around 100 feet from the ground, but before he or she begins a flare, using the rudder pedals, he or she ‘slips’ to swing the fuselage parallel with the runway. There are multiple techniques and again, they are at the discretion of the PIC. I am most comfortable with the “crab and kick method.” I crab during final, which is a coordinated maneuver with my nose into the wind. That is why I saw the runway on final at Calexico out my pilot-side window. As I enter the runway environment, I kick the rudder opposite to the crosswind to align my Mooney and its gear with the runway. I keep the ailerons into the crosswind as I flare.

The alternative is to start a sideslip on final approach using a cross-controlled maneuver. Your Mooney will be aligned at all times with the runway centerline, so there is no kicking the rudder in the flare.

Flaring

As you flare, you’re slowing down, and that makes your flight controls less effective. Slowly add more rudder and aileron during the flare to keep yourself aligned with the runway, all the way to touchdown.

In a strong crosswind, you may have full aileron deflection into the crosswind.



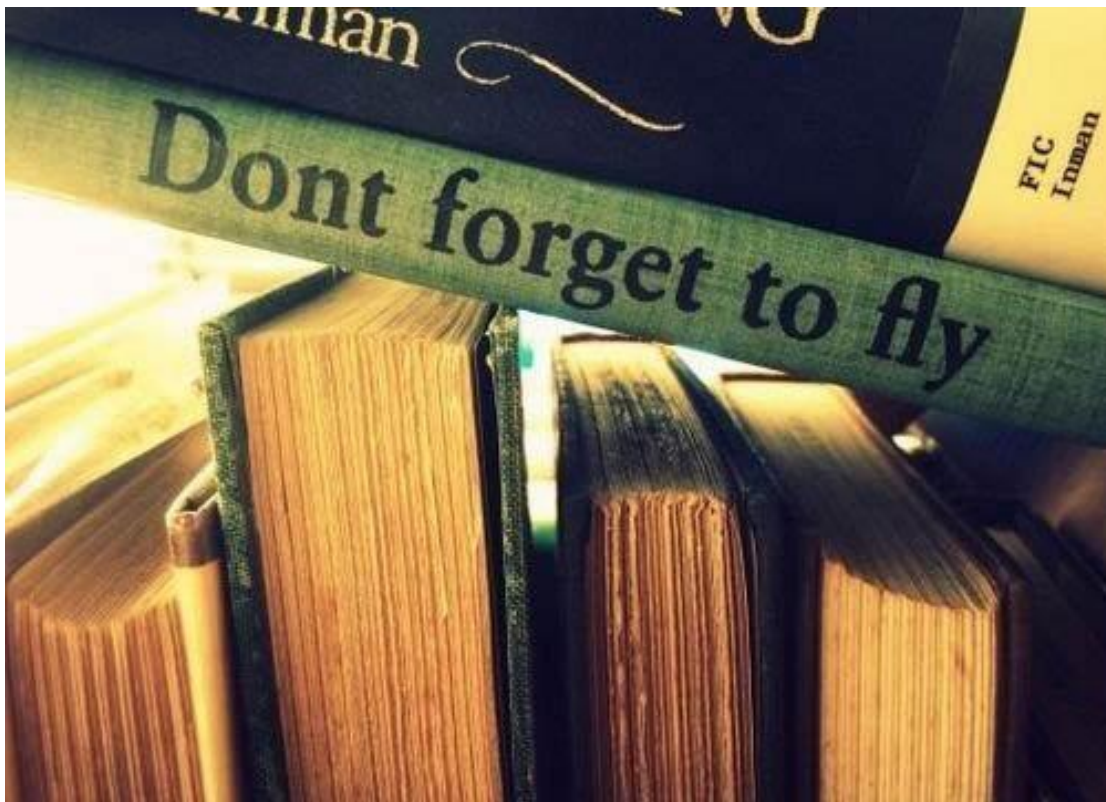
One Wing Low

In a proper crosswind landing, each landing gear touches down alone. The first gear to touch is your upwind main gear, followed by your down crosswind gear, and finally your nose gear. This is especially important in a stronger crosswind.

After Landing

Every Mooney pilot knows that you still need to fly the airplane until it is tied down or in the hangar. Once the aircraft is on the runway, don't release the controls. Gradually

increase your ailerons into the wind, so that a gust of wind doesn't lift your upwind wing. As you slow, you'll need to increase rudder input to maintain the centerline as well. I remember all this with the quote, "While taxiing, dive away from the wind."





When you are receiving Flight Following, should you inform the controller when changing altitude?

I have always advised the controller that I was changing altitude or beginning my descent for landing. Several years ago, I told the controller I was changing altitude. The controller, who was clearly not as informed and smart as I, responded, “You don’t need to advise me of altitude changes.” When I changed to the next controller, I continued to advise of altitude changes with no contrarian controller response.

[The AIM \(Aeronautical Information Manual\), paragraph 4-1-15 \(b\)\(2\)](#), states:

When receiving VFR radar advisory service, pilots should monitor the assigned frequency at all times. This is to preclude controllers' concern for radio failure or emergency assistance to aircraft under the controller's jurisdiction. VFR radar advisory service does not include vectors away from conflicting traffic unless requested by the pilot. When advisory service is no longer desired, advise the controller before changing frequencies and then change your transponder code to 1200, if applicable. **Pilots should also inform the controller when changing VFR cruising altitude.** Except in programs where radar service is automatically terminated, the controller will advise the aircraft when radar is terminated.

When you are participating in Flight Following, Controllers will advise you of any radar target, should it warrant your attention. The controller may issue a turn or altitude change to help you avoid conflicting traffic. Therefore, it makes sense that it would assist the controller immensely if he or she is aware of your altitude and your plans to change altitude.

The controller may also assign an altitude that is contrary to the normal VFR altitudes for traffic avoidance—especially in Class B or C airspace. ATC is required to advise the pilot when her or she can resume appropriate VFR altitudes.”



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

You can also email Lela Hughes, lelahughes49@gmail.com or call 210-289-6939.

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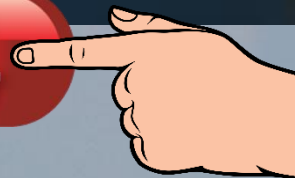
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Reduce YOUR Useless Load

By Richard Brown

The prospective buyer asks, "What's the useful load?" Or maybe it is one owner asking another, "What's your useful load?" Just last week, I was talking with a hangar neighbor and the topic of useful load came up.

"Mooney's have such a low useful load," is something I have heard more than once. Compared to some other manufacturers, that is true, but I can also fly the same distance on less fuel, so I don't have to tanker as much fuel to get to my destination.

Here's another one that I have heard a lot: "Never weigh your plane, you'll lose useful load." The first time I heard that I thought, "What a ridiculous thing. Don't you want to know exactly what your plane really weighs, not just what it says in the logbooks?" You compute the weight and balance for the flight based on the numbers in your logbooks, but when you start rolling down the runway, the laws of physics does not care what it says in the logbooks. Almost seven years of ownership later, I still think not weighing the plane to keep from losing useful load is ridiculous. I also realize I may get some hate mail over that statement.

Yes, I've heard the arguments about inaccurate scales, or people not following the proper procedure. My answer is to make sure the scales have recently been calibrated and follow the procedure with exactness. I have had my plane weighed once, and I did lose a little useful load in the logbook. (I didn't really lose any because that number only existed in the logbook.) I will have it weighed again after I have the new panel cut and installed; mainly because it was painted and there was bodywork done. I know I'm going to lose more useful load and I'm okay with it. I want the real numbers.

We probably all know someone who has spent great amounts of money in efforts to increase the useful load of their plane. Maybe that someone is you. That isn't what this article is about. This is about reducing your personal useless load. When was the last time you got on the scale? Were you happy



with the number you saw? Did you question the accuracy of the scale? I would wager a bet that many of us are walking around with an extra 10, 30, maybe even 50 or 60 extra pounds of useless load.

I'll admit, if you happen to land off airport and it takes 2-3 weeks for rescue crews to get to you, and all you have is a source of fresh water, then those would be useful pounds. But aside from that, they are useless.

Can you realistically increase the useful load of your plane by 30-40 pounds? Let's say you spent a bunch of money and removed all those old heavy instruments and went all glass. Perhaps you pulled out a vacuum system and maybe installed a lightweight starter and a lighter prop. Is any of that going to improve your quality of life? Are you going to have more energy? Will you be able to keep up with your kids or grandkids? I believe the resounding answer is "No!"

But if you reduce your useless load, the answer to those questions is, "Yes!" I know this for a fact. Why? Because I did just that, and at age 51, I am in better shape than I was at 41.



Since I started flying a little over seven years ago, I've reduced my useless load by 30 pounds and have about six more to go to get where I want to be.



For every useless pound that you reduce, that's an extra pound of something else you can carry in the plane. It's a win-win.

What is the secret to reducing your useless load? I hate to say it, but there is no silver bullet to speak of, and no magic trendy diet that is going to make it happen. A few years ago a good friend gave me a book titled [Younger Next Year](#) and it changed my thought process. The premise of the book is simple.

You can't stop the aging process, but you can slow it down, reducing many of the typical problems of aging. You can live an active life into your 80's and beyond. If you are currently out of shape, by getting in shape you could even roll the clock back a few years.

There are seven rules in *Younger Next Year*, but it mainly comes down to:

- Exercising six days a week
- Don't eat crappy / junk food
- Connect with others



Exercise? I can do that. Don't eat crap food? Well, I like ice cream and although the authors say French fries are of the devil, they sure do taste good. Connect with others? As an introvert, that one has taken some effort and taken me out of my comfort zone.

On our ski trips to Wolf Creek, just up the mountain from our place in Pagosa Springs, Colorado, I often share the lift with guys that look great and they are well past 70 years old! A couple of years ago I was skiing with a friend who introduced me to some of his friends. One of them was Steve, who is in his mid-60's. Steve knows the mountain like the back of his hand, and I spent the rest of the day trying to keep up with him as he led us through the trees on steep powder runs. He made it seem effortless as we went down the black diamond and double black runs. At the bottom, while getting on the lift, I would be breathing hard. Yet Steve looked like he had just cruised down a green run.

I mentioned there are no magic diets, but I did coin two different diets that my wife laughs about. In the flying world we love our acronyms. So, the diets I subscribe to are the ABH and SBH diets. What do they stand for? **"Always Be Hungry"** and **"Sometimes Be Hungry."**

****DISCLAIMER I am not a dietician, nor a doctor, nor a nutritionist, and it has been a number of years since I have stayed at a holiday Inn.****

Here's the hard truth.

Weight loss or gain comes down to calories. If you are consuming more calories than you burn you will gain weight. If you burn more calories than you consume you will lose weight. It really is that simple. All the fad diets are just different ways to get to a calorie deficit. Yes, certain foods can mess with your insulin levels, but weight loss still comes down to calories.

About 3,500 surplus calories equal a pound. That means that if you have a calorie deficit of 500 calories a day, you will lose about a pound a week. This is where the ABH and SBH come into play. The body will give you cues about what it needs. If you are always hungry, there is a good chance you are running a calorie deficit. If you are sometimes hungry, then you are likely sometimes running a deficit. The weeks I am ABH I lose about a pound a week. If I am only SBH, it is around a half pound a week.



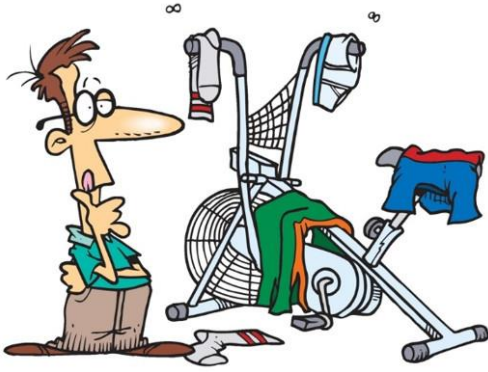
How do you make sure you are in a calorie deficit? The only way I know is to count your calories. There are lots of different Smart Phone apps that will count calories. I like using [My Fitness Pal](#), mostly because it syncs up with the Garmin app on my phone, which also talks to my Garmin watch. The app you use isn't as important as just picking one and using it.

You must put in EVERYTHING that you eat and be honest about what you record. This might mean measuring out your servings. My wife used to laugh, but I think now she just silently shakes her head as I count out the 31 Frosted Mini Wheats that I eat for breakfast each morning. You will be surprised at how many calories you are consuming. Did you know that 16 Wheat Thins are 140 calories, or 16 Mike and Ike candies are 110 calories? Yes, my mind is full of random, mostly useless facts.



I do count the calories Monday through Friday, but on the weekends, I eat what I want.

The second biggest part of the equation is exercise. In addition to improving your cardiovascular and muscle help, it burns calories, which means you can eat more... 🤔 What kind of exercise you do and when you do it is up to you. But find something you enjoy and can do it consistently.



For me, a gym just doesn't work. I don't have the extra time to go to a gym, and I really don't like them. About four years ago we bought an exercise bike. I didn't want to spend too much because I wanted to be sure I was going to use it for exercise, rather than a clothes hanger. After riding it every day, Monday-Friday for a few years, I decided I was committed and sprung for a more expensive bike. We now have a [NordicTrack S22i](#) and I really enjoy the iFit workouts riding all over the world. So far in Mid-October 2023, my year-to-date numbers on the bike are 281:08:25 total time, 4,961.57 miles, estimated calorie burn of 253,618 (that's a lot of extra ice cream to eat), and 355,734 feet of elevation gain.



My alarm goes off at 4:40 am weekdays and I spend an hour on the bike, followed by a [kettlebell workout](#). I finish it up with a set of 80 and another set of 30 pushups. Not bad for a 51-year-old. When I started riding the bike, it was a challenge to ride for 30 minutes; 25-30 pushups was my limit. If you can't even make it through 15 minutes of exercise, that's okay. The important thing is to just start and be consistent. A year or two from now, you will look back in amazement at how far you have come.

I like the early morning workouts. We call it the "Golden Hour" because nothing else is going on to interrupt you. There are no emails, phone calls, text messages, etc. Everyone else is probably still asleep. But, if you do opt for the early morning workout, get out of bed as soon as the alarm goes off. If you hit snooze or lay there for a few minutes, you will likely convince yourself that you should stay in bed and workout tomorrow. There are many mornings the alarm goes off and I don't feel like getting up, but I roll right out of bed and at the end of the workout, I have never regretted it.

Just like I don't count calories on the weekend, I take it easy and let my body recover on Saturday and Sunday. I usually get in some form of light exercise on Saturday, but Sunday is a day of rest. I also usually "sleep in" until about 6:30 am. After getting up Monday through Friday at 4:40 am, 6:30 really feels like a luxury.

Here's two more tips for reducing your useless load.

- Get a scale that will sync to your Smart Phone
- Weigh yourself **every day**.

You are saying to yourself, "If I weigh myself every day, then what about those days after I ate bacon at breakfast and pizza with pepperoni and sausage for dinner?" Well, if you're like me, you might be 1 ½-2 pounds heavier the next day. And that's okay, because it is probably mostly water weight from all the salt you had the day before. But, if those extra two pounds stick around for 3-4 days, I'm sorry to say, it probably isn't water weight, it's probably the real thing.

There are a lot of options out there that don't cost much and will sync to your phone via Bluetooth or WiFi. Having it sync up means that you can easily see trends in your weight. Week to week, you can see your average weight and see if you are trending up or down. Remember, what you weigh day today isn't as important as the average weight week to week. But without the daily weight, there is no average to look at.

Lastly, never buy bigger pants. You may be laughing, but that one comes from one of my uncles. His reasoning was that if he bought bigger pants, he would just grow into them, and then outgrow them. When they were getting tight around the waist, if he didn't buy bigger pants, it was a constant reminder that he needed to eat less.

If you decide to join me in losing your useless load and improving your quality of life, I would love to hear about your journey.



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

What was the first production aircraft to achieve 201 mph on 200 hp?



The M20J 201

Character – Pilot and Machine

By Parvez Dara



In the Scheme of things, when we deviate from the norm, something will happen. And it is that happening that sets this tale.

You see, there is a character to every aircraft make and model. Character is a broad term, but it does lend itself to the mood and behavior of any aircraft. A Mooney is the epitome of a classic, extremely well-built aircraft; revered by aviation enthusiasts. But each Mooney, in each subset of its class, is a different and remarkable piece of machinery. We know that a M20J is different than a M20R which is different than a M20TN. They all have different flight characteristics and differ in looks, fuselage length, weight and thrust. So, each needs its own tender loving care and understanding.

The pilot, therefore, needs to be as one with his aircraft, both in knowledge of its aerodynamics and its quirks. For example, the easiest one to spot is perhaps the windows between a M20F and the M20TN. Even within each model, depending on the year it was manufactured, the location of the Avionics, compared to the locations of the “ancillary light switches” and some display avionics/Nav/Com units, seem strangely out of place to someone flying the newer, out-of-the-factory model. Although, I feel it is far easier to control the specific mixture control in the vernier control, especially when flying the ROP and LOP operations. The panel differs in almost every aircraft within the Mooney series, based on the desires of the pilot and his wallet size.

While transitioning from one aircraft to the other, it takes time to learn the avionics that adorn the panel. It also should take about as much time learning about the nuances of the flight characteristics. The most obvious one is about the way the ailerons are rigged. Most Mooneys in level flight with equal distribution of fuel, given enough time in level flight, without autopilot or pilot input, will turn towards the pilot side, but not all. It is good to know.

Several years ago, flying back from Tennessee to New Jersey in my M20M, and upon reaching 17,000 feet, I turned the Autopilot on for the cruise mode of the flight. In the clouds and with a featureless, grey blanket all around, I was reaching for the flight-bag, when I heard the wind increasing. I looked at the gauges and found that I was at a 45-degree bank to the left. Puzzled, I reached for the yoke and put the aircraft back into straight and level flight. There was no resistance. I punched off the A/P and then carefully pushed the buttons in the required sequence. The aircraft stayed straight and level for about 5-7 seconds and then the bank started again. You guessed it, the Autopilot had gone AWOL. A \$10 resistor had failed and to replace it, the cost was \$500. The next day, I flew the aircraft again with full fuel. Sure enough, leaving it to its own devices without input, that aircraft seemed to have a predilection to turn to the right.



Flying an aircraft also requires a knowledge of the performance, given a set of power and configuration settings. Again, one size does not fit all. I was in the habit of using 18 inches Manifold Pressure and 2,400 RPM, (decreases to 2,200 RPM with lower MP), when doing an approach. It turns out, adding the Turbo-charger and squeezing all the spaghetti inside the engine compartment, not only makes the aircraft nose heavy, it also needs an extra bit of power (MP) (about 20 inches), to keep the same flight profile on approach. On downwind I was accustomed to 15 inches.

Now, I need about 16.5 inches of MP to keep it around the required approach speed in the downwind portion of the traffic pattern.

So, what of that? How does one figure out what is needed to fly the aircraft at specified airspeeds? Simple answer: Practice and experience. Perhaps the best way is to plant a Flight Instructor in the right seat and practice flying the aircraft with various power settings and configurations to determine the performance of the aircraft. The POH is a fair guide. Fair, because it will give a picture of a brand-new



engine with all cylinders having compressions in the mid to high 70s. But you and I are perhaps flying one that is a few months or years older, and the performance is not going to be exactly predicated on those numbers in the POH. Let's not forget the weight of the aircraft. There is a wide distribution between max gross weight and normal flight with partial fuel. Is the pilot alone or is there one additional passenger? Less weight lightens the aircraft weight and requires less power to propel it through

the air. Yet with all those caveats, a ballpark figure gives us a good baseline to follow and then tweak to the circumstance.

And that brings us to a Stabilized Approach

A proper configuration and power setting will give you the required performance. A lower power setting means a higher angle of attack, requiring injection of power to keep the flight in a stabilized form. That also diminishes the safety margin as it puts the aircraft behind the power curve. Any gusty wind or a wind shear can drop the aircraft out of the sky. On the other hand, arriving with a 747-pattern altitude on final and then a screaming descent with the nose down attitude and a compensated minimal MP, leads to difficulty in measuring the stored and kinetic energy that must be dissipated to arrive over the runway environment. A shorter field with that approach might mean blown tires, rolling past the departure end of the runway or worse. Some will say "You can simply slip the aircraft, thus increasing the drag profile of the aircraft and descending rapidly." Yes, that is true, but you need a lot of practice and confidence and that is not an approach that one wants to do every time. A stabilized approach is defined as a 500-fpm descent at 500 feet in VFR approach conditions and at 1,000 feet in IFR approaches in the proper glide path and at the approach speed. If you find yourself outside any of those four limits, the best option is to Go-Around for another crack at it.

Knowing the performance of the aircraft in various power settings and configurations and weight, is a recipe for being a "boring" pilot. A short tale of a friend, who I took flying for a \$100-hamburger. Upon landing back at the home airport, he said, "Is that all there is to it? Man, that is boring!" I asked what he had in mind. He was looking for loops and rolls to relieve himself of the heavy lunch he had just eaten. I told him to stick to driving his Corvette.

Energy management is the key in flying any aircraft. And where it becomes important is when the thrust is gone. When the engine decides it has had enough and gives up the ghost; whether from fuel exhaustion, contamination, component failure, loss of oil from the crank case, or a myriad of other vile things that can destroy the solitude in any phase of flight. Let me address the cruise mode to belabor the point of managing the energy of the aircraft. Have you practiced the engine out procedure with your instructor lately? How long has it been? The reason for the ask is because memory is fickle and the "feel" memory is even more fleeting. We all know how the aircraft feels on departure, with the thrust that pushes us back into our seats as the runway falls away. What we want to know is how it feels when the prop is idling, and the thrust has dissipated. Now, the only thing holding the aircraft up is the lift generated by the wings flying through the air.

To maintain it in flight, one needs to fly the aircraft at a specified "Glide Speed (Vbg)." The Vbg in the POH is predicated at Max Gross Weight (MGW). And the rule of thumb to calculate the Vbg with the approximate Aircraft weight is simple: For every 100 pounds less than MGW, deduct 2 knots of airspeed. Hence, if the Best Vbg is 110 for 3,600 lbs., a weight of 3,200lbs will command a Vbg of 102 knots. It behooves us to also be aware of our weight and balance in flight. Each gallon of fuel is roughly 5.8 lbs. (approx. 6 lbs.) In flight, usage of 40 gallons means you have shed 240 lbs., hence the Vbg would drop by 5 knots.

And now onto the "Feel" Issue

It behooves us as pilots to periodically do a simulated engine out procedure. It is best to try it when no other traffic is around, starting at 2,000 feet on an upwind as the "high key," turning downwind at around 1,500 feet, and on final around 700 feet. It is important not to fly the full traffic pattern, but to aim for the second third of the runway as the touch down zone and stay within the airport boundary. That way, one is restricted from trying to "stretch the glide," which has killed scores of pilots.

For instance, in a Mooney, if you close the throttle, the sink rate in a perfectly executed Vbg goes to 700 – 800 feet per minute. One can remedy part of that anomaly by pulling the propeller lever aft, provided there is a functioning oil and governor. In a simulation, the sink rate decreases from 800 fpm to around 400 fpm. To prove that to yourself, fly the aircraft at low power settings at 18 inches and 2400 RPM, and then pull back on the prop and feel the NASCAR type acceleration of the aircraft in the air. The six-foot barn door of a windmilling prop turns into a slatted barn door and diminishes the drag significantly. It is best to leave the remaining drag of the extended gear and flaps, until the "Runway is made!"

Knowing the aircraft, and knowing your well-honed abilities, make for an aviator and not just a pilot.



Who owns Mooney International Corporation?

it was purchased in 2020 by a group of Mooney aircraft owners under US Financial, LLC of Wyoming.

Go Get Smoked!



By Jerry Proctor

So, what is he writing about now? Go get Smoked? Yup, I love to get smoked. Well, I sort of like it. Are you now thinking, does anyone, other than a masochist, really like to get smoked? So, what do I really mean? Well, think of several of your last flight reviews. Did the CFI really grill you during the oral? Did he or she rapid fire questions and shove your back up against the wall? Did he or she ask, what is the emergency procedure for a wing tip fire? Then, on the way to the plane, did the questions keep coming? Before you crank, you are starting to think, why bother, he or she is going to no-go me no matter what. Likely, this was not like your last few orals or flights. I am not saying any of my or your past instructors were unprofessional. In fact, the Mooney Safety Foundation instructors I fly with are excellent. However, the above description is what I recently went through. Please read on.

Well, a few months ago, I had a real, pass or fail check ride, that afterwards, left me in a puddle. However, it was a good puddle. I got more out of that check ride than four or five of the previous flight reviews. He really did ask me the emergency checklist items for a wingtip fire, as if the position lights were on fire. Now don't go looking for that in a Mooney POH, as I was flying a different airplane that really did have it in the POH. The answer is, you spiral side slip the plane, so that the wind blows the fire outboard the wing. Yes, I am now staying awake, worrying if my position lights will burst into a Roman Candle!

What I am suggesting is, to change things up . . . not a little but a lot. Walk up to the CFI that has the biggest reputation for being hard as woodpecker lips. Ask . . . no, dare him or her to conduct your flight review. As he or she peers down his or her nose at you, don't back down and run away. Say loud and confidently, "Yah, bring it on!"

Then, you know what will happen? Before this flight date, you are going to do something you haven't done for a long time . . . crack open the books. This is what I did for the above fight. I lit the late-night candle and went through the regulations, found my dusty quiz cards, and started to remember limitations, procedures, and airspace items. I looked at my ForeFlight maps for symbols I didn't recognize. Then, I said to myself, there seems to be more I don't know versus those I do know.

So, it is like a new health coach at your gym, a pending promotion, or feeling like it is just time to up your game. Submitting to a challenging Flight Review will be good across the board. A Flight Review can't be flunked. My flight was a Civil Air Patrol (CAP) Check Pilot ride, and yes it could be flunked. But I am a better pilot for the challenge, and my future IPCs, FRs and CAP check rides will also be better. So, go make yourself hurt, but make it hurt good.

I am sure you will now thank me with many of the thousands of email responses I always get . . . not. Fly well and Safe!

P.S. Next year, feel free to attend a Mooney Safety Foundation event near you. There will be five of them and the first is in Florida, January 2024. Walk up to anyone of the instructors and say, "I bet you can't make me sweat!" See what happens, you will be richly rewarded!

Why get an Instrument Rating?

By Terry Carraway

I have met a number of pilots who feel there is no benefit for them to get an instrument rating. They contend they only fly VFR and therefore don't need that "ticket." But there are some good reasons to get an instrument rating, even if you don't want to fly a trip in IMC.



The first reason is monetary. Many insurance companies give a discount if you have your instrument rating, and for frugal Mooney pilots, saving money is a huge incentive. You might want to talk to your broker about what the savings will be if you get your instrument rating.



The safety aspect. A common cause of crashes is flying VFR into IMC conditions. During our training for our Private certificate, we all had our three hours under the hood. But are you really ready to deal with an actual IM scenario? How about flying at night? Twice, I have taken off at night into reported clear VFR weather and found myself in IMC. I promptly transitioned to instruments, called for an IFR clearance, and continued my flight.

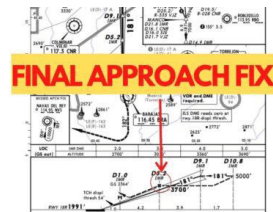
Do you use Flight Following when going cross country? Flying IFR is very similar. However, when you are IFR, the controller cannot get busy and tell you, "Unable Flight Following, squawk VFR, frequency change approved." They are stuck with you until YOU cancel IFR. And while IFR, I know that the controller will make sure I don't stray into any special use airspace. I stay aware, but they have up-to-date info about the status of that airspace and whether you can safely transit. As with Flight Following, if anything happens, you are already talking to the controller for assistance.

It will make you a more precise pilot. Instrument flying is more demanding than VFR flying, and it requires more precision in your flying. Flying on instruments, you will hold headings to much closer tolerances than needed for VFR flying. Additionally, when shooting an approach, you will need to repeatedly, make very small heading and pitch corrections. Also, your altitude control will need to be more precise. In cruise, if you deviate more than 200 feet, ATC may point that out to you. When flying an instrument approach, you need to be at altitude to be successful. These skills will all carry over to your VFR flying.



The ability to go places on days you cannot fly VFR. Now, I am not talking about blasting off into the sky when it is 200-foot overcast, flying 500 miles in IMC, and shooting an approach at an airport with a 200-foot ceiling and ½ mile visibility. I am talking about days with a 1,500-foot ceiling, but the cloud layer is only 500 feet thick. It may be VFR at your destination, but it is not a good day to take that trip VFR. However, with an instrument rating, you can file, take off, punch through that layer and be in the sunshine above.

In the 15 months I have had my Mooney, I have flown it 155 hours, but only 8.5 hours have been in actual instrument conditions, and I have only flown two actual IMC approaches that barely counted. (To count as an actual approach, you need to be IMC at the Final Approach Fix). In most cases, I broke out into VMC very early in the approach.



Recently a friend and I took a trip in my Mooney. Going outbound, it was a wonderful VFR day for flying, but coming back, not so much. We took off into a 2,500-foot ceiling in rain and mist. At about 5,000 feet, we were in the sunshine with wonderful visibility. We were cruising at 8,000 feet with the clouds below. Sometimes they were well below, sometimes we were just skimming the top of the layer. BTW, that is glorious flying, skimming the tops of the clouds (legally) and actually feeling and



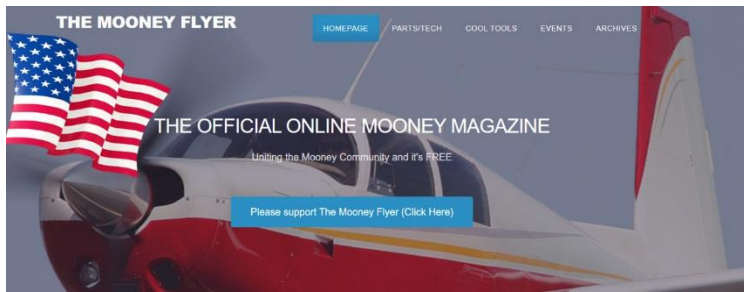
seeing the speed of your Mooney. Near our destination, the clouds came up and we were IMC for a bit. We started our descent and at about 4,000, we broke out to VMC below. A total of a 2.7-hour flight, maybe 70% smooth. It was an easy IMC trip that had I flown VFR, would have been miserable in the rain, mist, and bumpy air below. That is if it was even possible to fly the trip VFR. And to log the approach, I had to go under the hood.

That brings me to another part of the advantage of having an instrument rating. You are able to fly above a lot

of the bumpy air and haze. Some types of clouds are formed by rising air, making things bumpy and trapping the haze below. Getting above the clouds gives you a smooth ride in clearer air. With an instrument rating, you can climb through the clouds to that higher altitude with no concern that the clouds would close in and trap you above.

There is no greater sight than climbing out of a dark, dreary, rainy day into the clear blue skies and sunshine above. That is what flying is all about. It is also a truly amazing feeling the first time you fly into a cloud. I am sure a number of the instrument rated pilots reading this have slowed down, opened the vent window, reached out and touched a cloud. I know I have.





September 2023

1) Here's an easy one: You're flying into the Safford Regional airport (KSAD). Is KSAD tower controlled? Yes or No.

Answer: No. Magenta colored airports on VFR sectionals are non-towered airports. Blue colored airports are tower controlled.

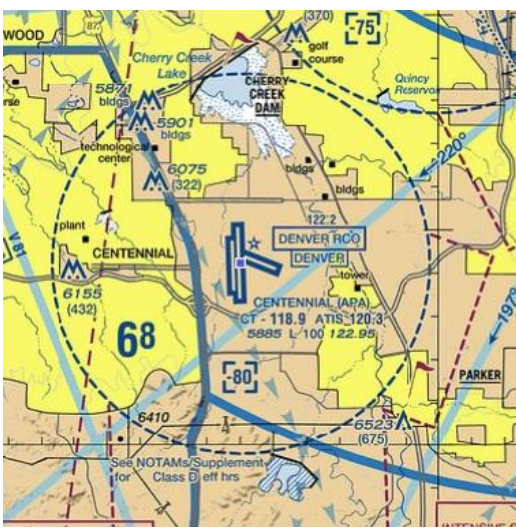
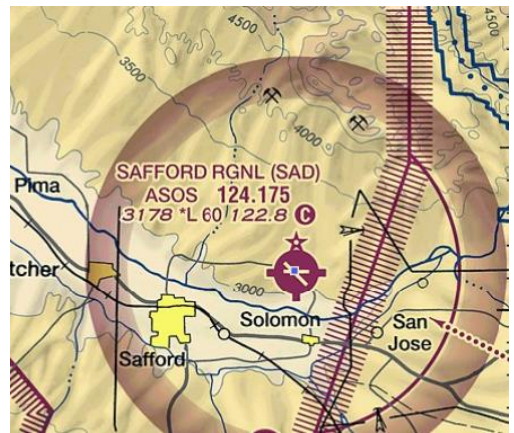


2) Is Class E Airspace Uncontrolled or Controlled Airspace?

Answer: All Class E airspace is controlled airspace.

3) What is the minimum VFR visibility you need if overflying Safford Regional Airport during the day at 10,500?

Answer: In Class E airspace, flying at or above 10,000' MSL requires 5 miles of visibility.



5) You plan to land VFR at Denver's Centennial Airport (KAPA). The pattern altitude for light aircraft is 1,000' AGL (6,885 MSL). When in the pattern, how far below the clouds do you need to be here?

Answer: You need to remain 500' below the clouds in Class D airspace. Therefore, KAPA's ceiling should be at least 1,500' (AGL).

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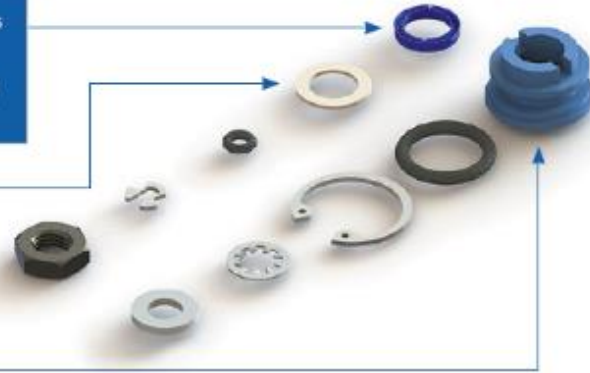
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Expectation Bias and Distractions Lead to Near Disaster

by Mario Jimenez



Wichita, Kansas – Summer of 2010

The ultimate irony is to have the exact headline that, decades ago, permeated itself into your life, to be the one that, once again illustrates in living color, the front page of your Curriculum Vitae. This time, you not only portray the role of the victim, but demonstratively and unambiguously dress in the gowns of culpability. Just about a quarter of a century earlier, I had come oh-so close to bending metal and hurting people during a [taxi-out of Frankfurt, Germany](#). And, without remorse, I could (and did) very assertively and aggressively, point the finger at the captain. After all, I was so innocent! Yet now 24 years later, it was me in the left seat and here we were, once again, confronting bad luck, a broken airplane, as well as more than our fair share of dysfunctionality. *Could that play a factor later on?*

During the summer of 2010, I was near the zenith of my fortunate career in aviation, enjoying the privileges, rights and rewards of being a senior airline captain, with my choice of days worked and routes flown. I had moved my family to the greater Salt Lake City (SLC), Utah area 12 years earlier and, in an effort to blend family time and work, I always looked forward to each and every single **“SLC flight sequence”** I could muster, beg, borrow or steal. Such was this afternoon flight, a repetitive Memphis to Salt Lake City and back daily sequence that would run all week.

This was midweek and I had just landed in Memphis. As a recipient of a celebratory barbeque lunch, a new and shiny jet, a load of heavy freight and a belly full of fossil fuel, I was once again, the happiest of campers, more than ready, willing and able to aviate westbound. Earlier that morning as we climbed out of SLC, a different First Officer and I had noticed that significant cloud build-ups were blooming and wondered if upon our return in the afternoon, they might pose a threat. *Could that play a factor later on?*

Unlike the DC10 in Frankfurt, this MD10 had undergone a major transformation and now, not only possessed new glass cockpit technology, but now, only required two crewmembers to fly (versus three required in the DC10). All of the aircraft systems had been incorporated, validated and automated so we no longer needed a Flight Engineer; or did we? With one set of eyes less, you would have guessed that more attention to detail should have been the soup du jour. To make things more interesting, the First Officer, who was our guest of honor, had recently been hired and his legacy on this airplane could only be measured in a single week. It was also my very first time flying with that individual. *Could that play a factor later on?*



This MD10 had undergone a major transformation and now not only possessed new glass cockpit technology, but it also only required two crewmembers to fly.

Minutes before stepping aboard the aircraft, I took one last opportunity to check in with my wife to see if she would be able to meet me for dinner that evening at the downtown hotel. Her voice was a little doubtful as she mentioned the ever-increasing dark clouds and strong winds that had hung around our house all afternoon.

She hates to drive in inclement weather and as we said goodbye, it seemed to me that I'd be dining alone.

As I reviewed the maintenance records for our trusty steed, I came across a notification that the #2 autopilot was inoperative. Since the MD10 was equipped with two fully functioning, independent autopilots, this would be either a minor inconvenience or perhaps not an issue at all. ***Could that play a factor later on?***

Our takeoff, climb-out and initial high altitude cruise flight were normal and uneventful. Worth mentioning is that initially, as a team, we didn't particularly gel together. The conversations were polite, professional and certainly politically correct. Yet, there was very little said that was not related to the jet and to flying. It is times like these that bring to mind the phrase, "*the power of silence*". We did notice that the further westbound we flew, the worse the weather seemed. These concerns were soon validated by Air Traffic Control, who had begun issuing significant weather notices and handing out enroute delays as quickly as red-hot playoff tickets. It became apparent, in the quickest of fashions, that the greater Denver, Colorado area was getting pounded by repetitive gangs of malicious thunderstorms. Yep, another typical summer afternoon in the Rockies. ***Could that play a factor later on?***

We were level at 34,000 feet with a beautiful blue sky and had just passed Wichita, Kansas, witnessing the airport disappear under our nose as our craft easily chewed through at eight miles per minute. Things could not get any better, but then, our Master Caution light brightly illuminated along with the unmistakable click of the autopilot switches. We unambiguously understood that our one and only serviceable autopilot had now disconnected.

I quickly asked the First Officer to hand fly the airplane while I assessed the situation and spoke with Air Traffic Control. It didn't take long for us to determine the problem. We had lost Hydraulic system #3 – poof, gone. It had squirted out a leak in some random hose and at 3,000 PSI, it took but a few seconds for the system to be depleted. Since autopilot #1 is powered by hydraulic system #3) and with the loss of this hydraulic system, our only viable choice was then to use autopilot #2. The only issue was that it had been inoperative even before our flight and now we really needed it. ***Could that play a factor later on?***

Due to rules imposed by the Federal Aviation Administration, we were not legal to operate above 29,000 feet without the use of an operable autopilot. This part of the U.S. airspace is known as Reduced Vertical Separation Minima (RVSM), so one of the first things that happened is, we were evicted from 34,000 feet and ordered down to 28,000 feet. We complied, while using our slow, hand-flown descent to tend to our house keeping duties in terms of checklists to be completed. Now it was time to start building "*Plan B.*" Thankfully, the clear airspace we were presently in allowed us to clearly see ahead and what we saw we did not like. ***Could that play a factor later on?***



Even the 5 o'clock weatherman could have told you that hand flying westbound at 28,000 feet towards a sky filled with menacing anvil topped cumulonimbus that easily crested at 45,000 feet would not be the most prudent or wisest of choices. Adding points for difficulty was the hydraulic dilemma.

Without dissecting this beyond comprehension, hydraulic system #3 differs from hydraulic systems #1 and #2 in several ways. The most prominent

difference being that the extension and retraction of the landing gear finds its roots here. In other words, no pressurized fluid in hydraulic system #3 means no normal operation of the landing gear. Fortunately, there is an emergency way of extension. So, while we would be able to utilize the emergency procedures to extend our landing gear, in our current state of affairs, once locked in place, we would not be able to retract the landing gear. Why was this a concern?

Looking at the geography of Utah, we can easily see that Salt Lake City is 500 miles from Denver, 400 miles from Las Vegas, and 350 miles from Boise. All of these are significantly distant. This is especially cogent when we understand that the amount of fuel planned for any weather diversion is factored with the landing gear in the retracted position. A gear down scenario would consume copious amounts of fuel and time, neither of which we had enough of. If we elected to continue to Salt Lake City, and upon approach extended our landing gear via the emergency system, should the thunderstorms, (which I knew were assertively announcing their presence from speaking to my wife as she stood in our backyard), mount a coincidental frontal assault with our arrival and thus prevent us from landing. We would have no recourse, no way to reach an alternate airfield with our landing gear extended. Plain and simple. ***Could that play a factor later on?***

We chatted a few minutes and decided that our best and most prudent course of action was to park the airplane as soon as possible. We had just overflown Wichita and it looked good. We studied the landing charts and saw that Runway 1L was 10,000 feet long which was plenty of distance for a long roll out as we now, due to the hydraulic loss of system #3, had also lost wheel brake system #2. This would be needed to help stop the airplane. We knew we had a company ramp in Wichita with our own company aircraft mechanics and maybe they spoke MD10. We coordinated with Air Traffic Control, declared an emergency, and diverted expeditiously to Wichita International and landed uneventfully. Our troubles seemed over or so it seemed. *Oh, how wrong this would prove to be!*

As part of the standard operating procedures, anytime an aircraft declares an emergency, the airport supporting ground equipment, (Police, Fire, EMS), go into action and so it was this afternoon when they all proudly and overtly escorted us to our ramp, strategically placing themselves in a festive parade formation, only feet away from the front of our airplane. ***Could that play a factor later on?***

Immediately after clearing the runway and starting our taxi inbound to our ramp, the First Officer and I talked succinctly and elected to shut down our #3 engine. This was due to the potential problems associated with the leaking #3 hydraulic system. That was a normal and expected procedure. (On the MD10, the #1 engine hangs on the left wing, the #2 engine lives high up on the tail and the #3 engine is found on the right wing.) In shutting down our #3, we had also mechanically rendered brake system #2 inoperative. That's OK, because we still had engine #1 powering brake system #1. ***Could that play a factor later on?***



As we approached our ramp, the Wichita Ground Controller directed us to park our aircraft as much out of the way from normal operations as possible. This was necessary as the sheer footprint of our humongous jet would easily preclude the movement of any airplane in our vicinity. So, off we went to an unused remote penalty box. Sure enough, all of our police, fire and EMS migrated as well. Unknown to us, this patch of ground had a slight downward pitch built in. ***Could that play a factor later on?***

What happened next cannot be more appropriately choreographed, except perhaps in a recreation of Shakespeare's *Comedy of Errors*. Deputy Barney Fife and his cohorts were a circus parade of sirens blaring, lights flashing. They were still standing around and pointing ever closer to our jet. Their presence, covertly deposited a shadow-like vapor trail around our immediate perimeter to our 12 O'clock position, leaving us with the feeling that *big brother* was watching, and they were watching downhill from us. ***Could that play a factor later on?***

The mechanics' intercom headsets would not work properly. We could hear them, but they could not hear us. We then reverted to hand signals and attempts at writing a note and holding it to the window. The plan was simple in origin and design – secure the aircraft via either chocks against the wheels or via a tractor and towbar. Attach it to the airplane thereby rendering it immovable. Simple, right?

The mechanics preferred the use of a tow bar and tractor, so off they went on their scavenger hunt. Poetically enough, just before their departure, they asked us to move the airplane one more time and just a few feet to a further corner of the tarmac. During this last center stage act, with a definite loss of communication, unfortunately we, (mostly I), lost situational awareness and did not confirm that the chocks were indeed back in place. I also did not verify that the parking brake had been set once again. After all, we had moved the airplane several times and somewhere in those sequences the parking brake ended up being *off* and the wheel chocks tragically remained in a different zip code. The search for the towbar and tractor continued. ***Could that play a factor later on?***

As time passed, those standing in front of our jet grew bored. Just the loud whine of the jet engines broke the monotony of a hot summer Kansas afternoon. This entire time, two of our engines were still operating to provide electrical/pneumatic and hydraulic power. That is, until I decided to reduce the noise level by electing to shut down another engine leaving us with only one operable engine to provide the necessary mechanical needs. As the saying goes, this is where the rubber met the road.

Once again, without dissecting this beyond comprehension, engine #1 (left wing) powers a number of things, one of which is extremely important at this particular time, and that is wheel brake system #1, which provided us with the ability to hold the airplane in position by depressing the brake pedals. My natural selection was to shut engine #2 (high on the tail) as it had no direct effect on our only remaining brake system #1. Was this discussed with the First Officer? No, it was not. I just assumed he/she would have agreed with my choice of which engine to shut down.

To this day, I clearly remember my exact words to the First Officer, "*Let's go ahead and shut another one down and reduce the noise level for those folks out there.*" I expected to feel/hear the #2 engine securing itself. Our company flight manual has very specific, detailed procedures to shut down an engine. These procedures ensure that things are done and steps followed in the correct order to achieve the goals intended. Was this done? Obviously not. ***Could that play a factor later on?***

As a personal side note, just how difficult is it to be truly introspective and admit to yourself that you have indeed fallen short of the mark? What are the thoughts, perceptions, realities, admissions, reflections, rationalizations, excuses and feelings that come into play? Are they immediate? Yep, some are, yet their first cousins soon show up and commence that never-ending finger pointing. There is an old saying in Naval Aviation, *I'd rather die than look bad*. Perhaps a bit extreme, but certainly germane. What made all of this much more damning is that in a past life, I had been the Dalai Lama of human factors. I was the individual in charge of instructing all the other pilots at my airline exactly how NOT to do what I had just done. What would my reputation be? How could I walk through the pilot operations

center? Would they all point and whisper...*there HE goes, did you hear?* Then there's the potential audience with federal authorities, all the while standing on the wrong side of the long green table without a simple glass of water. ***Could that play a factor later on?***

In retrospect what happened next can, in hindsight, be easily predicted. It was *The Mother of All Surprises*. Following my command, the First Officer did indeed secure/shut down another engine. However, instead of engine #2 coming to a spinning stop, it was engine #1. I had not been specific as to which engine to secure. I had just directed him to shut down another engine. In defense of the First Officer, whose limited experience awarded them a bit of latitude for potential error, in his mind there would be less noise if a wing-mounted engine was secured rather than the one up high, way back in the tail. ***Could that play a factor later on?***

Just as if it was yesterday, I still feel the decreasing vibrations and noise as the engine began its final ever-slowng spiral towards silence and sleep. All seemed normal as I looked out the front windshield at the numerous rooftops of the fire engines, ambulances and police cars just feet away. That is, until the general quarters alarm blasted deep inside my amygdala, instantly activating the storm trooper legions of panic, shock and disbelief. Why were both of my feet slowly rotating around compressing brake pedals? Why was that residual brake pressure disappearing? Where was it going? And more importantly, what was causing our 400,000 MD10 to creep forward at an alarmingly increasing rate? What was yards or even feet of separation, now seemed like mere inches. Those vehicles, those people, they had no way to move, no way to extricate themselves from the approaching doom.

Quickly I looked inside the cockpit and to an even greater degree of confusion, I witnessed first-hand the engine indicators for engine #1, as they swept counterclockwise at the speed of light – yes sir! It was tapping out and tapping out with no way of an immediate restart. There was no way to resuscitate it back to life and no way to regain that life-saving power to wheel brake system #1. ***Could that play a factor later on?***

They say that at least once you will see your life flash before your eyes. The next minute or so played both in slow motion and in an almost out of body like experience. I don't recall hearing any sounds or feeling anything other than pure, unbridled terror as I pumped my feet as fast and as forcefully as I could – why? Not because of anything other than the raw hope of a miracle. I had to keep that purple battering ram from breaching whatever safety zone was still left. It wasn't because at that moment I had my wits about me and remembered the emergency pneumatic brake accumulator, capable of 10 applications. It was because I could not pray more fervently. I could not light another votive candle or wish it any stronger. Yet, to our rescue came a simple system, designed during the infancy of this jet for situations just like this. It did work. It did take a few seconds to activate and when it was said and done, when the jet was finally stopped once again, when the parking brake was re-engaged, we were less than 18 inches from their main fire truck.

The moments that followed the slight rocking of our jet as the parking brakes took effect and indeed demonstrated to one and all that we were once again static still, seemed trance-like. So much confusion, both in and out of the cockpit. Our mechanics were nowhere to be seen. The first responder quorum was now gathering anew as they had expeditiously moved out of the way. They were now entertaining themselves by pointing ever so excitedly at the microscopic distance between the nose of our airplane and the roof of the fire truck. Inside the cockpit, my head spun and spun. I tried to make

sense of what had happened and so did the First Officer. What just happened? Was that my voice I heard 24 years earlier?

I now had a choice. I could, as in a past life, covertly obscure the facts and instantly deposit them deep inside the catacombs of denial, thereby rescuing my ego – or I could painfully man-up, belly up to the bar and put on my big boy pants. I knew that the next time I looked in the mirror, I would have to face myself. To say that the decision to follow through with what was right did not come easy. There is always, at least for me, a smidgen of self-preservation, yet how much a failure would I be if after all that I invested in teaching how and what to do, when it counted the most, I miserably flunked. ***Could that play a factor later on?***

As an epilogue, the mechanics soon showed up with a tow bar and all was secure. We exited the jet and thanked the first responders. Not much was said about our last-minute slide into home plate. We remained overnight at a hotel while a new hydraulic hose was flown in and installed. All good. The next morning, we continued to Salt Lake City with a load of one-day late freight.

After a restless sleep and somewhat of a meal, I made it a point on the way to Salt Lake City to have a long, forthright, authentic chat with the First Officer. Yep, sometimes honesty is the best policy even if you know those self-inflicted wounds are sure to be the most painful.



A year or so later I saw the First Officer in Memphis. He simply smiled and gave me a thumbs up.



Mario Jimenez

I grew up in Latin America and graduated from the University of Texas, El Paso. I served in the United States Marine Corps as a Naval Aviator flying the A6 Intruder, T2 Buckeye and A4 Skyhawk.

Following my military career, I joined FedEx and flew the Boeing B-727, McDonald DC-10 and McDonald MD-11 ultimately as a captain and check airman. At FedEx I also served as a CRM/human factors manager and member of the pilot selection team.

I've been married to Barbara Bluth for 47 years and we're very proud of our 3 children and 11 grandchildren. Our family has resided in Utah since 1998.

See: <https://airfactsjournal.com/2023/09/expectation-bias-and-distractions-nearly-lead-to-disaster/#comments>



Thunderbird Aircraft Sales

Specializing in pre-owned Mooney Sales and Brokerage

Hello Mooney Flyer Gang,

My name is Richard Simile, I am the President of **Thunderbird Aircraft Sales**. We specialize in the Sale and Brokerage of late Model Mooney Aircraft. If you are considering the purchase of a newer Mooney, or thinking about selling your current Mooney, we hope you will consider using **Thunderbird Aircraft Sales**.

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.

602-884-2111

richard@thunderbirdaircraft.com

www.thunderbirdaircraft.com



YELLOW ALERT,

by Richard Simile / Thunderbird Aircraft Sales LLC



I feel we should consider flying with a **Color Code**. When Captain Kirk called for **Yellow Alert**, lots of things happened on the USS Enterprise. Shields went up, safeties clicked off and weapons were readied, etc., etc. If we think about taking off in **Yellow Alert**,



it might help us think more clearly through the moment of a possible emergency, in the rare event one should happen. I feel a **Yellow Alert** status elevates the senses to what “might” happen, preparing us for something. This is very much like taking the safety lock off a gun. In doing so, with heightened awareness, you are preparing for some kind of action. I believe that **Yellow Alert** will also help in the moment of Aeronautical Denial when, let’s say you get a power failure after takeoff (**RED ALERT**) and it takes a few precious seconds to get that nose DOWN!! Of course, **Yellow Alert** could be helpful in many other circumstances. In general, it gets you thinking about what you are just about to do, and in doing so, it could provide a tactical advantage should an emergency situation actually occur.

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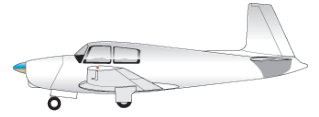
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Ask the Top Gun



Tom Rouch

Founder of Top Gun Aviation, Stockton, California



Send your questions for Tom to TheMooneyFlyer@gmail.com



I'm new to Mooneys and not very mechanical. That's why I'm grateful for what you do in The Mooney Flyer. My questions are 1) What is a landing gear actuator? Is it the gear motor? 2) I've heard that the backspring fails and is hard to buy. True? 3) What fails most on Mooney landing gear? 4) What's the life expectancy of the gear motor?



It is interesting to me that the questions are specific to landing gear actuators. I spent a lot of my time at Top Gun doing bench work on gear actuators. First, let me explain that on the early model Mooneys, the landing gear was retracted and extended by purely mechanical means and arm strength. Then, in the mid-60s, Mooney came out with an electric gear actuator that was really a great improvement. All you had to do was flip a switch to operate the gear. The only real problem was pilots who forgot to flip the switch. I can't remember how many "bellied" Mooneys I have repaired.

To answer the specific questions, the actuator was a jackscrew assembly powered by an electric motor. It was mounted in the belly of the plane, just below the front seats and was mounted horizontally with about an 18-inch-long jackscrew that through pushrods and bell cranks, would raise and lower all three landing gears. Besides pilot error, which was the most common problem, the failure of the backspring was the cause of most of the mechanical failures. It is hard to explain the backspring, but it is a coil spring that couples the motor to the drive mechanism. Its purpose is to absorb the "shock" when engaging the motor to the gear mechanism, so it is engaged every time you operate the gear. To illustrate how important it is, I had a customer who was flying around the world and the spring broke when she landed in Thailand. Once the spring is broken, you can't operate the gear. Luckily, it broke when the gear was lowered, but she had to fly gear down to Australia where I was able to find a shop to change the backspring. I think it took over 20 hours of flying gear down to get there. I understand they are almost impossible to get now, and the last time I checked, a new gear actuator was over \$15,000. We rarely had a motor failure and did have on occasion a bearing failure or problem with the electric wiring. I once had a bearing break on one gear, so the Mooney had to land with one main and the nose down. This resulted in some damage to one wing tip. Life expectancy of the gear motor? I don't know. They only operate about two minutes each flight, so we rarely had a motor problem. I think that considering there is a real shortage of new parts, salvage yards are the only source for replacement parts. I know of several Mooneys that were totaled and went to salvage with good gear actuators.

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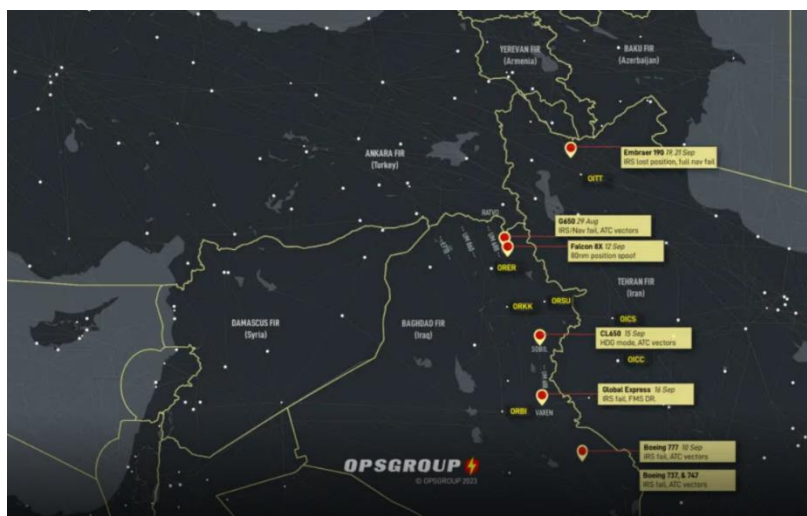
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Have you
HEARD?



If they Can Spoof GPS in the Middle East, they can Spoof in your Airspace



Someone in the Middle East has figured out how to spoof GPS data and it's playing havoc with aircraft navigation. [OPSGROUP](#), a site used by airline, business and cargo pilots, is reporting that aircraft using Airway UMB688 in northern Iraq are experiencing complete navigation system failures because the hacker replaces the position data beamed by the GPS signals with false coordinates. "[Twelve] separate reports have been received by OPSGROUP, and in most

cases the [Inertial Reference System] becomes unusable, VOR/DME sensor inputs fail, the aircraft UTC clock fails, and the crews have been forced to request vectors from ATC to navigate."

For More information, [CLICK HERE](#)

AD Mandates Garmin Autopilot Software Fix

On Oct. 6, the FAA proposed a new [airworthiness directive](#) requiring operators of thousands of aircraft



to update Garmin autopilot software to address a flaw causing the autopilot to make unintended flight-control inputs.

According to the agency, the AD was issued in response to an incident involving an F33A Bonanza experiencing "an un-commanded automatic pitch trim runaway when the autopilot was first engaged."

The proposed rule states: “The affected autopilot system software does not properly handle certain hardware failures of the pitch trim servo. This could result in an automatic uncommanded pitch trim runaway and loss of control of the airplane.”

The FAA estimates the AD would affect 5,900 aircraft equipped with the autopilot system— including Beechcraft Bonanzas, Commander Aircraft 112s and 114s, Cessna 172s, 182s, 206 and 210s, along with Daher TB20s and TB21s, **Mooney’s M20 series** and Piper Cherokees. However, the FAA estimates a fix will be relatively cheap for operators at around **\$85**.

The agency is proposing operators complete the installation of the updated Garmin autopilot software within a **one-year time frame**. The proposed rule will be published on Oct. 10, and the FAA will accept public comment until Nov. 24.

Meanwhile, many of those affected have already resolved the issue since Garmin released the software fix earlier this year. “The updated GFC 500 software for GI 275, G5 and G3X Touch installations allows pitch trim to be enabled as a closing action to Service Alert 22109 and STC Service Bulletin [22110](#),” Garmin said in a statement to AVweb. “The [Aviation Service Document Notification](#) describes the software update procedures for impacted owners and operators.

Add Bluetooth to Your Panel



Canadian avionics manufacturer Anodyne Electronics Manufacturing Corp. (AEM) has introduced the BAA01-001 Bluetooth Audio Accessory. It is designed to add Bluetooth connectivity to existing avionics, audio, PA, or loudspeaker systems.

The accessory is compatible with general aviation avionics from companies like Garmin, Aspen Avionics, Avidyne, and more.

The BAA01-001 supports phone calls and music audio using the built-in Bluetooth audio profiles. An integrated front-panel LED annunciator displays the power, pairing, and link status. The unit allows aircraft owners to adjust control and volume of the Bluetooth music and call audio playback using the unit’s built-in front-panel rotary encoder.

The BAA01-001 features two Bluetooth connections, two front-panel Type-C USB connections for charging, and a rear-pin dedicated USB out, including shared 7-Amp USB current.

For more information: <https://www.aem-corp.com/our-products/bluetooth-audio-accessory/>

New Garmin Pilot Watch includes Flashlight



- Garmin has introduced its latest aviator smartwatch, the **D2 Mach 1 Pro**, which features a touchscreen display.
- A built-in LED flashlight offers variable white light intensities, a strobe function, and red light for flight deck operations.
- Improved battery life of up to 25 days in smartwatch mode and up to 46 hours in the Fly activity mode for the pilots who complete their trips over multiple days.
- Red Shift Mode changes the entire watch interface to shades of red to help preserve night vision.
- The ECG app allows users to record their

heart rhythm and check for signs of atrial fibrillation (AFib). Users can take a 30-second ECG recording and view the results immediately on their smartwatch and, optionally, later in the Garmin Connect smartphone app.

- When pilots aren't taking to the skies, they can get a better understanding of their fitness levels and track their performance with more than 30 built-in sports apps and advanced training features like hill score and endurance score.

suggested retail price of \$1,399.99. See more information [HERE](#)

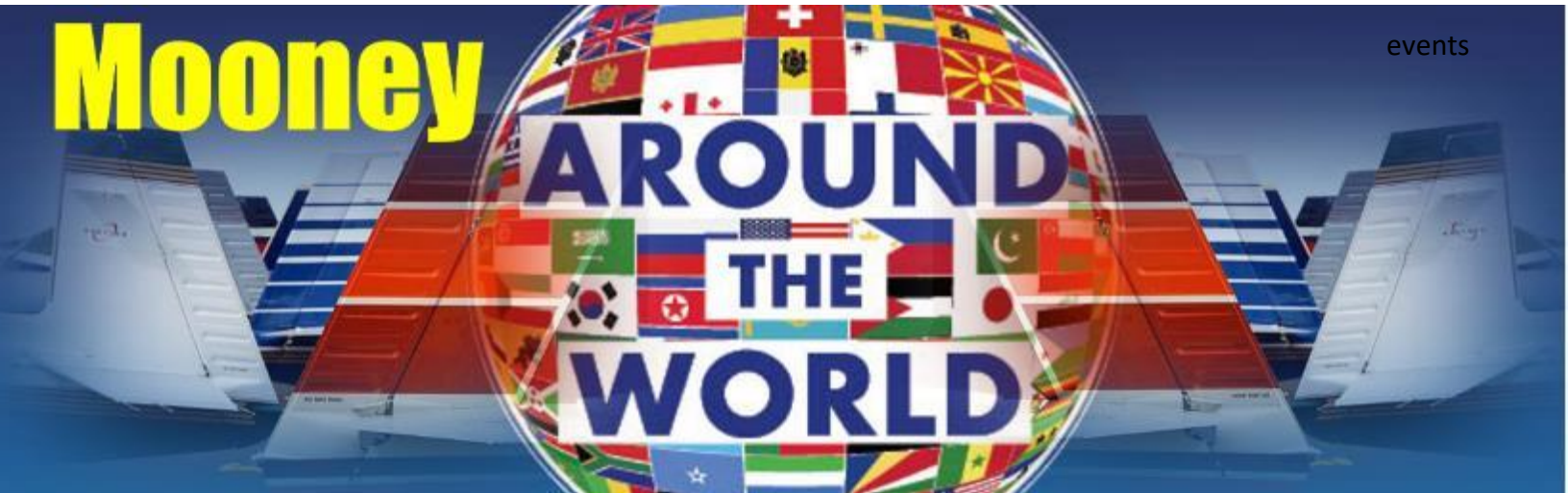


U.S. Customs and
Border Protection





CBP Revises Requirements For International Flight Clearances

The new guidance adds clarification on the need to retransmit an APIS manifest at least 60 minutes before departure based on changes in manifested details (i.e., added or subtracted travelers), changed tail numbers or time adjustments (exceeding a one-hour window). "If the manifest changes occur outside of business hours," NBAA wrote, "operators should still re-transmit and call the port when it reopens to explain the manifest changes."

NBAA also advises operators to telephone their local CBP port to cancel the original clearance and confirm the updated information. "In some cases," NBAA said, "the port might be able to approve an expedited departure if the flight is already vetted." [CLICK HERE](#) for more information.



events

| | |
|---|---|
|  | <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</p> <p>November 11: Lakeland (LAL) December 9: Sebring (SEF)</p> |
|  | <p>Sign Up at https://www.mooneysafety.com/ppp-registration/</p> <p>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 Next year's 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> | |



TME
PRODUCT
REVIEW

FlightRadar24

I like this iPhone (IOS) app. It is also available for Android users.

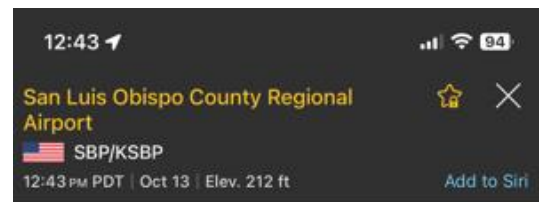
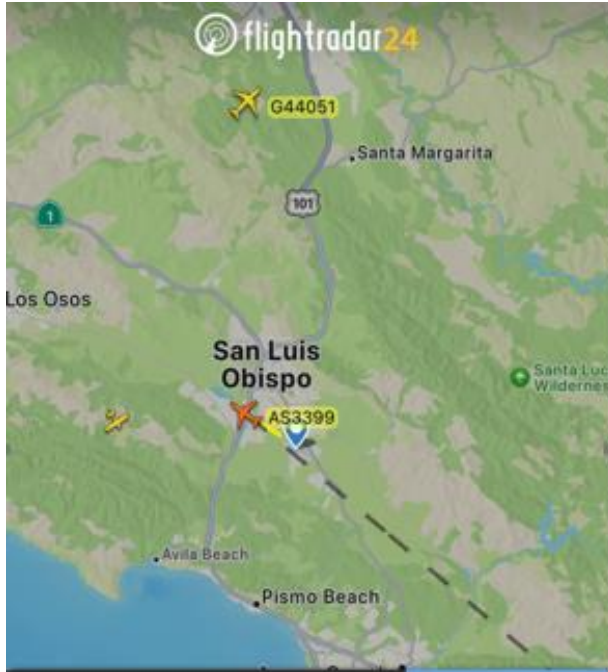
You pick an airport, then see all the traffic you want. Pinch in to ZOOM in or pinch out to ZOOM out.

Touch an aircraft and get all the information you need, such as N number, ground speed, altitude flight path, and a lot more.

Want to see what that pilot sees in 3D> You can do that.

It's fun and is a variation of FlightAware.

If you are more interested in an airport than an aircraft, tap on the airport and then you can view arrival and departure boards, flight status, current delay status, detailed weather and more.



ARRIVALS — FRIDAY, OCT 13

Varo INSTANT CASH UP TO \$250, JUST LIKE THAT. [Sign up](#)

| | | | |
|-----------|--|-------------------|-------------|
| 12:50 PM | | Burbank BUR | |
| 12:46 PM | | N395TG B350 | LIVE |
| 1:30 PM | | Denver DEN | |
| 1:20 PM | | UA4765 CRJ7 | LIVE |
| 4:00 PM | | Phoenix PHX | |
| Scheduled | | AA3088 CRJ7 | |
| 4:58 PM | | Portland PDX | |
| Scheduled | | AS3351 E75L | |
| 5:56 PM | | San Francisco SFO | |
| Scheduled | | UA5240 CRJ2 | |
| 6:02 PM | | Seattle SEA | |
| Scheduled | | AS3348 E75L | |
| 6:55 PM | | Phoenix PHX | |
| Scheduled | | AA3062 E75L | |
| 8:05 PM | | Los Angeles LAX | |
| Scheduled | | UA4734 E75L | |
| 9:03 PM | | Dallas DFW | |
| Scheduled | | AA1765 A319 | |

General Arrivals Departures On ground



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 @ 5000ft
Or 7.8 GPH @ 8500 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 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 * \$17000

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 AD

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)



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