The Mooney Flyer

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Bushido (武士道 ?, "the way of the warrior"), is a Japanese term for the Samurai way of life, loosely analogous to the concept of chivalry in Europe.

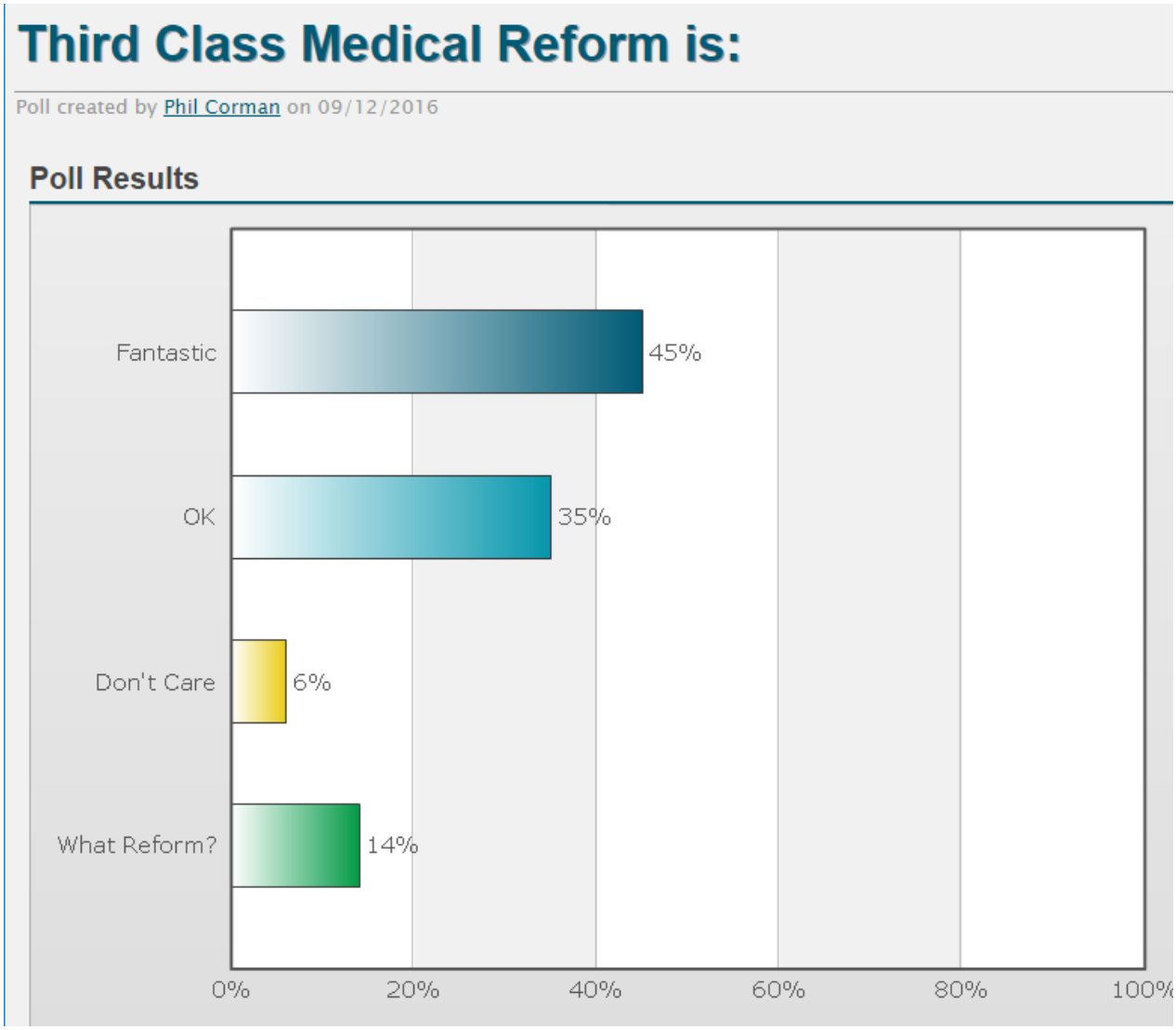
Rod Machado talked about this at the Aviation Xpo in Palm Springs October 20-22. You're probably wondering what does a Japanese Samurai code have to do with General Aviation. Well, Rod described it as a code of conduct, or set of rules, that guided the Samurai. He went on to make a strong case that every pilot needs a Bushido for how they will conduct every phase of every flight. A Samurai example went as follows: An enemy approached one of the greatest Samurai, who already had his hand on the hilt of his sword, and spit in his face. The samurai stood still, and then taking his hand off his sword, he turned around and walked away. The reason? In Bushido, a Samurai should never engage an enemy while he is angry. And boy, was this Samurai angry.

In your pre-flight methodology, what is "your Bushido". What codes do you hold yourself to? Will you take off for a one hour flight and skip the weather briefing? How about a two hour flight? Will you pull the cowling off your Mooney to double check the work your mechanic just completed before your flight? Are your rules of conduct absolute, or situational. By situational, I mean you will follow them in certain situations, but not all.

En route, I have a Bushido code that goes something like this: If a "second thing" goes wrong during the flight, I will terminate it. Why you might ask? Simply because many accidents happen, not because something went wrong, but because there was a series of things that did not go right. Under what circumstances will you land at an alternate and wait out the weather? How loudly does your Mooney have to be "talking" to you before you make a provisionary landing to check it out.

On landing, what is your Bushido for a go-around? Is it the first bounce or the second? The third bounce doesn't count because by then, you've probably dinged your prop. Will you land if there is another plane on the runway, but you don't think it's "a factor"?

Rod made a strong case that we should all have our Bushido code and promise ourselves to be absolute and fly by that code. Arigatou gozaimasu (thank you).



Next month's poll: "I Raise My Gear When:" **CLICK HERE** to vote.

Appraise Your Mooney's Value

Don't forget about our cool new **Appraise your Mooney's Value** calculator.

M20C M20E M20F M20G M20J

RE: Point vs Counterpoint on Time to Retract Gear: When to retract the gear:

In most cases on smaller airports, there is no way to accelerate, lift off, chop the power, land, and stop in the available runway distance. In that case, pull up the gear as soon as you have positive rate-of-climb. If you have to make an off-airport landing, the odds are good that you are going to want to do it gear-up anyway, unless you are sure that the terrain will favor a gear-down landing.

If you have a really long runway, you might leave the gear down just a skosh longer, but even then, the increased rate-of-climb is probably going to serve you better than the chance you might put it back down on the runway.

Brian L

Accident Study -- Engine Overhaul Interval

The engine manufacturers have gone to a calendar time in addition to operating hour time for TBO. Does this make sense? Not really. I have had engines run well beyond both hourly and calendar TBO. Conversely, I have had engines fail well short of both calendar and hourly TBO. The key is not time, but how often they are operated and in what environment they exist when not operating.

For example, I ran one Lycoming O-320 to 2700 hours and 15 years. It was running just fine and not making metal. I overhauled it because I wanted to hot-rod it for an experimental aircraft, not because it needed an overhaul. Conversely, I have had two engines, a Lycoming and a Franklin, both within reasonable hourly and calendar TBO, fail with pitted and spalled camshafts and cam-followers. Both were run only occasionally and for short periods of time, and both resided in humid climates. Both showed problems in the filter and with oil analysis.

So, after quite a bit of experience I have found that the clear indicator of engine distress is engine oil analysis and the appearance of metal in the oil filter. Operate engines regularly and use the various analysis techniques available. Those two things will work much better than blindly following the manufacturer's TBO recommendations.

Brian L

Mooney at Aviation Xpo – I went to the 3rd Aviation Xpo in Palm Springs. The first 2 were relatively small, but this one was even smaller (i.e., had less). Less airplanes on the ramp… less exhibitors in the tent. It was held at KPSP instead of the convention center, probably to save money. Mooney was there with 2 Mooneys, but neither of them were the new Acclaim with 2 doors. I was surprised that the new Mooneys do not come with a suite of LED lights, interior and exterior. No LEDs were in sight. Sigh….

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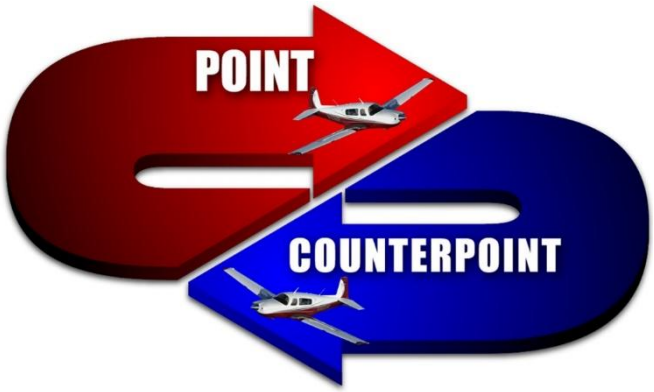
The restaurant at Lampson Field at Clear Lake is open again! You can see pictures and get all the info at www.giovannisskyroom.com. We are very hopeful that it will be successful, as our little town and airport really need it! It is closed on Tuesdays, and I think hours are noon to 9 p.m. with dinner from 5 to 9.



Point vs. Counterpoint – Approach to Landing

It is imperative that you approach at a 3° angle in order to make a good landing.

3° gives you a safe and stabilized approach with the proper VSI descent rate, thereby making it easier to enter the rollout and flare.

The probability of an engine failure on an approach is extremely low, and a stabilized 3° approach outweighs the risk.

Well, I think that's poppycock. All that matters is proper airspeed. I am 80kts on downwind, just before turning base, I drop the flaps. Once established on final, I'm slowed to $1.3V_x$.

But at 3° you must carry power to make it to the runway. I was taught that in a single engine airplane, you should always be within gliding distance in the event of an engine failure.

Oxygen for Smart Pilots

By Captain Karen Kahn, CAL/UAL Retired, www.captainkarenkahn.com

During the majority of my airline flying career, oxygen was a no-brainer. The O2 mask (which we checked dutifully before every flight, lest we have an explosive decompression which would soon render us unconscious without it) hung behind my head for 15 years in the MD80. It was stowed in a box outboard of my left knee for my last 10 years in the Boeing 757/767.

Now, I'm enjoying retirement flying my B55 Baron. I've missed the easy availability of a quick shot of "brightener" as I used to call those whiffs, particularly at night, when the instrument panel seemed a bit fuzzy (through the late hour and long durations at 7,000' + cabin altitudes). We'd breathe deeply on the oxygen and then, like magic, the panel would come back into focus, my brain would reengage and life seemed so much brighter.

Now, in my elder years, I recall how important those shots of oxygen were and decided if they helped that much for a younger full time professional pilot, just think of what that same oxygen would do for an older, leisure pilot, who's got few of those airliner niceties like stretching room, walking areas, lavatories, etc. Since I try to fly with the precision of my old airline life, why not give myself a helping hand by using oxygen to fortify my skills, which are not nearly as sharp as they used to be.

I thought long and hard about why more pilots don't use oxygen. It does such a great job at making you feel better, fly better and eliminates post-flight headaches. It occurred to me that my old mantra of "make it easy for someone to do what you want them to do" was just what I needed to do for myself. Make it easy to don the nasal cannula, get the oxygen flowing and then, last but not least, quickly see the benefits.

With these thoughts in mind, my primary mission during my first Oshkosh Airventure visit this past summer, was to talk to the various nose-hose (as we used to call the O2 masks) vendors. I wanted to find a 2-4 place oxygen system that would work well for me. It had to be easy to install, easy to use in flight, and easy to refill as needed. I had begun my research several months before and now I was able to see the various systems and talk to the experts. I ended up with a Precise Flight OXYpack2 - 2 Person Flow Meter Oxygen System With 15 CU. Ft. Cylinder. It is light weight, easily strapped to the back of the passenger seat and it's easy to don and use without interfering with ongoing pilot activities like speaking and eating.

I found that the mustache cannula, which allows the oxygen to be conserved and administered through the measured flow meter, was a snap to put on, even in flight with my headset in place. I merely removed the cannula from the zip pocket on the outside of the oxygen bottle bag, stuffed it under my headset band and then slipped the cannula tubes into my nostrils, allowing the hose to drape over my headset earpieces and down my right shoulder.

The best part of my purchase was a small oximeter, which could tell me instantly when I needed to don the oxygen and how much it was helping me when I did. Normal readings are above 95% and below 90% is considered critical (see some good info at http://www.easyoxygen.com.au/oxyge http://www.easyoxygen.com.au/oxygen-saturation-levels-and-what-do-they-mean/n-saturation-levels-and-what-do-they-mean/

During my recent trip from KJAQ to KSBA at 7,500 feet, I was amazed to find my O2 level was down to 90% after only 10-15 minutes. I donned the nasal cannula, turned the bottle all the way on, adjusted the flowmeter to my altitude and settled comfortably to watch the scenery go by. About 10 minutes later I checked my O2 level and was pleased to see it back at 96%. I had flown similar routes in the daytime for many years and never realized how impaired I actually was while flying at 7,500', which is technically not at a FAA oxygen-mandated altitude. Imagine what using oxygen will do for my night flights above 5,000 feet, where oxygen is recommended. It improves night vision, which us oldies-but-goodies can certainly use some help with. My next night flight should be a real eye-opener…pun intended!

So, do yourself and your flying skills a favor. Since none of us aren't getting any younger, so enhance your flying with some easy assistance by using oxygen more often.

Geoff lee.
CFII

To Be Precise

With a pictorial representation of your course line presented on a GPS map, finding and flying to any destination is not particularly difficult. If you are blessed with a current WAAS GPS unit installed in your aircraft, descending along the depicted path to a landing runway, using an electronically simulated glide slope presentation, generated by "on board" equipment, requires only average instrument flying skills.

The following text is primarily directed toward those of us that do not have the latest GPS technology in our aircraft, or perhaps toward the species of airman that enjoys the intellectual challenges of the way it was before GPS. It's still required certification knowledge by some examiners under certain conditions. It also helps to have a clue as to how you should proceed if the screen goes black.

The instrument landing system that projects **vertical and lateral** signals from a ground facility located on an airport (ILS) to a compatible receiver in an aircraft, provides landing approach guidance to any aircraft/pilot. It has sufficient positioning accuracy to be termed a "precision" approach system.

The term "**precision**" applies to the capability or characteristics of the system **and not to the skill level required by the using pilot.** It does take a modicum of practice and piloting skill to closely follow the guidance received from an ILS under all conditions of wind and weather, but the procedure itself is a relatively simple process. It requires the pilot to maneuver the aircraft relative to the indications of two needles; one moving horizontally for lateral guidance along a course to the landing runway and the other about the vertical axis for positioning the aircraft on a gently sloping path (*3.5 – 5 degrees*), downward to the runway approach end. The two indicating needles give a precise and **constant indication of the alignment of the aircraft with the required path to the runway,** until a safe arrival is visually assured.

The approach procedures termed "**non- precision**" actually do require the pilot to fly these procedures with **more flying skill and accuracy** than that required by the ILS. The non-precision approach is characterized by the absence of electronic vertical guidance, *e.g*. no ground generated glide slope signal emanating from the destination airport. Course guidance is derived from a VOR signal or an ADF transmission. (Y*eah*, *ADF is still around*). The single VOR **radial is about 1,000 ft wide at 10 miles from the VOR**, and one mile wide at 60 miles. It is important to know if the VOR station to be used for an approach is on the destination field ahead, or is somewhere behind your course line heading. Keeping the **VOR needle within 3 dots** of center will assure that any alignment correction will only need, at most, a 10 degree heading change.

Have a mental picture of the airport runway orientation relative to your inbound track. The aircraft will not necessarily be lined up with a runway, even with the VOR or ADF needle centered. You are just looking for the airport!

Plan to arrive at the minimum descent altitude (MDA) at a distance from the missed approach point (MAP) that is related to the reported visibility. For instance, with visibility at 1 mile you should arrive at the MDA approximately one mile prior to the MAP. This should give ample time to decide if the runway is in sight or you should execute the missed procedure. (P*ower up, pitch up, clean up*). Arriving at the MDA at a distance greater than the reported visibility, poses the scenario of flying along close to terra firma without having the hard ground in view. I find that disquieting.

A **rough** overall descent rate can be quickly derived from the profile view on the plate, using the total distance of your path to the chosen MDA point. The amount of altitude you need to descend through the initial approach altitude (IAA) down to the MDA, and your speed (120=*2 miles/ min.)*

Obvious variables are ground speed and MDA point relative to the visibility and the MAP, plus the significant disparity of distances between fixes. All of these variables will require adjustments by the pilot, as the approach course is flown. However, that calculation provides an initial rate of descent that can be readjusted as needed, primarily by pitch and minimally by power, as the aircraft approaches each fix. The VSI is the primary tool for this task. You can allow the speed to vary some when making pitch adjustments while throttle applications should only be made if the airspeed falls below VX or the descent rate exceeds 900 fpm. These numbers are guidelines that I use. Judgement by the pilot in each situation is called for. Excess **throttle jockeying will degrade the quality of the approach.**

Approach time period is an important detail to derive, so decide on your speed to the MDA. Use an easy speed to maintain like 120 mph or kts to simplify calculation, using *2 miles for each minute. O*bserve the distances between the fixes and the total distance from IAP fix, where you'll *start the timing*. **Your position is related to the time elapsed. (***OK, any GPS reflects position***).**

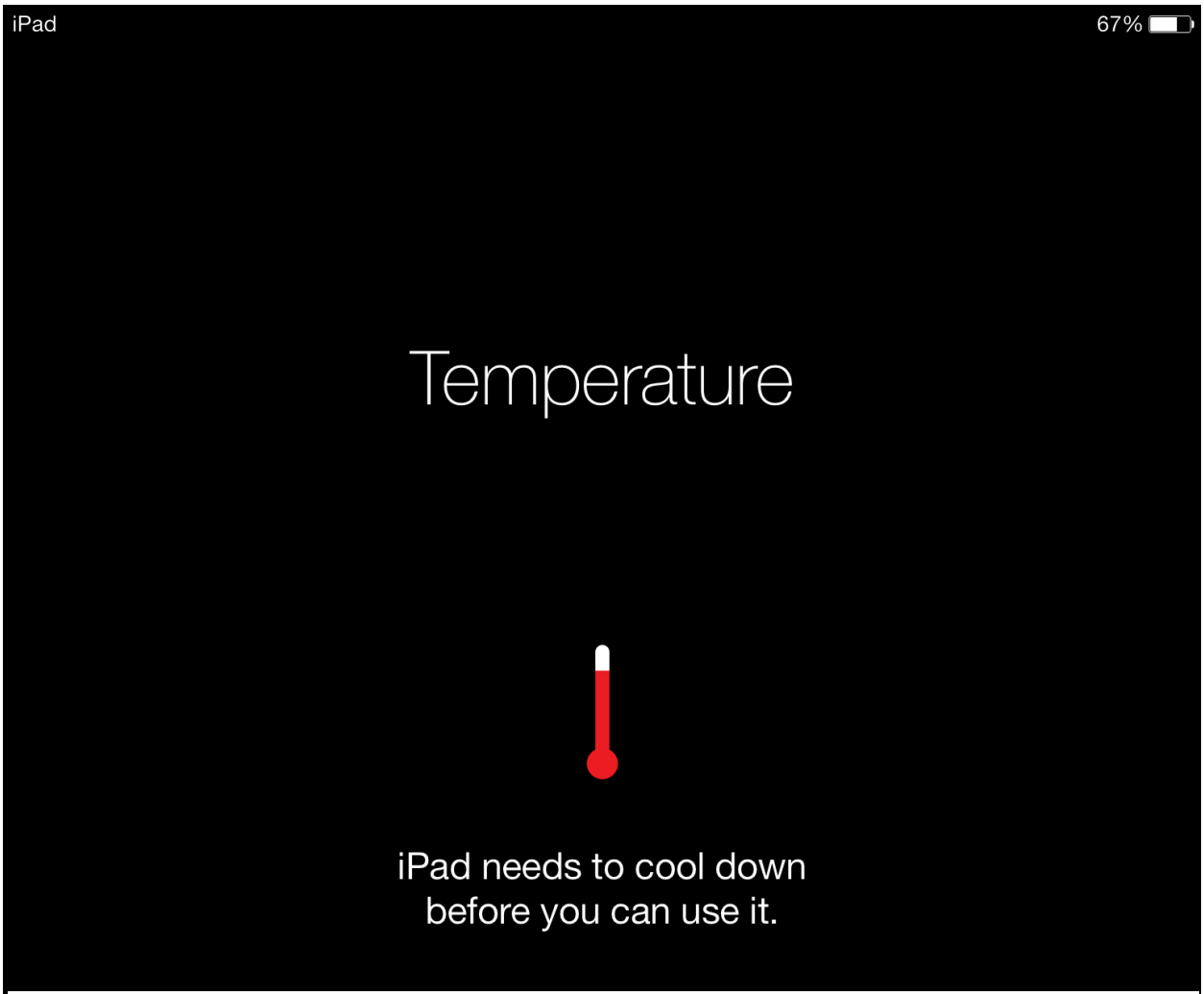
If you do happen to be *"cheating*" with a handheld GPS/iPad, it is useful to check your compass heading relative to the heading shown on that device when accurately following a pictorial course line. This is actually the track heading of the aircraft. If you do not have a "slaved" gyro compass in the aircraft, it is not a bad practice to set the compass to the GPS heading prior to the approach. Your track/heading/direction is what the controller sees on his scope, thus saving him from compensating the headings he gives for any significant wind drift. Obviously, track and compass headings can be widely disparate on windy days.

Make a power setting that you know will provide a gear down speed at the high end of the white arc at about a 600 fpm descent and use your feet (*rudder*) for small (*less than 10degree*) heading changes. Do not over manipulate the yoke. Use pitch to make minor variations in airspeed, rather than pumping the throttle. Scan, scan, scan. When any needle moves a tiny fraction from where it should be, **fix it immediately**. Altitude, heading, descent rate, and the airspeed can vary widely as you **control the descent rate with pitch,** within the range of the max white arc to VX speed. Resist the urge to look out of the window and use a qualified observer when practicing.

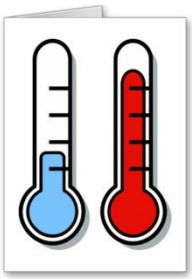
Plan ahead and stay well ahead of the aircraft on any approach in IFR conditions. Mother Earth will not gently welcome the unskilled aviator.

Do You Understand Your iPad?

1. If you see this screen on your iPad, what does it mean?



ANSWER: The iPad is in the overheat protection mode which tries to prevent damage to the internal battery. You should cool down the device. Remove it from direct sunlight and put some cool air on it. Once it cools down, (in a matter of minutes), the iPad will automatically restore normal operations.



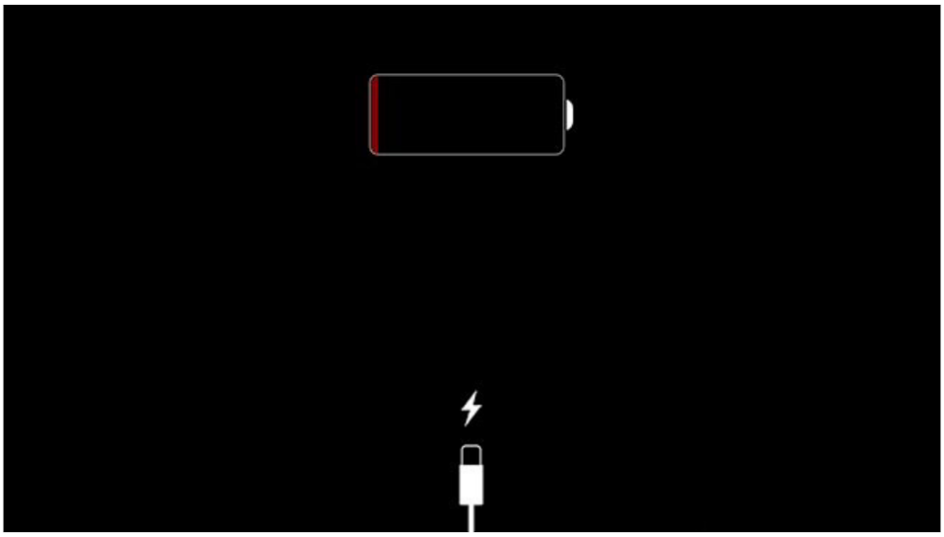
2. Apple has a minimum and maximum recommended iPad operating temperature. What is it?

ANSWER: 32^{o} to 95^{o} F. Outside of these temperatures, your iPad will not operate at peak performance. Too hot and it will shut down (overheat protection mode). Too cold and the screen will become unresponsive and battery life will diminish.

3. Apple has established a maximum altitude for iPad operation. What is it?

ANSWER: 10,000 feet MSL, but it won't explode above 10,000 feet. It will work just fine. However, you should be aware that because the air is less dense above 10,000' MSL, the iPad will be more susceptible to overheating, especially when exposed to direct sunlight.

4. What does this screen mean?

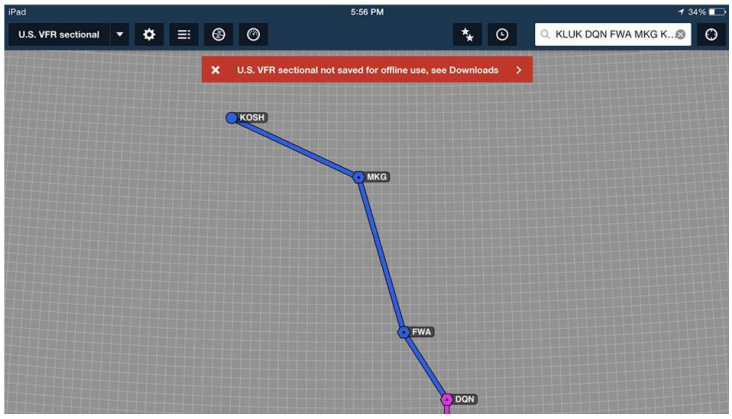


ANSWER: The iPad battery is below the minimum level and must be charged. If you ignore the warning, and the battery drops to 0% in flight, you'll have a black screen. You should either plug it into a power source or switch to your backup paper charts.

Available almost everywhere

Available at Sporty's

5. When you were planning in your WiFi equipped home, everything looked great. When you arrived at the aircraft, the map looks like the one shown in the next graphic. What happened?



ANSWER: The charts were not saved to your app and you'll need to find a WiFi connection and go to the download section of the app to download the appropriate charts and aviation databases for your flight. In ForeFlight, if you tap "Pack", while connected to the internet, this will "Pack" all the appropriate charts and aviation databases for your flight. These charts will stay in ForeFlight, but will not automatically update during the next update cycle.

6. You're flying with your iPad and you notice that the panel mounted Garmin GNS 430W seems to be acting weird. The GPS reception fails often and you're experiencing interference in the Comm radios. Is there anything that you can do?

ANSWER: You could unplug the iPad from the charging source and turn off cellular data, WiFi and Bluetooth. Why? Cheap, off brand charging cables can cause Comm interference. In rare instances, the cellular data can interfere with the GPS reception in the panel mounted avionics.

7. You're using your iPad for navigation (a GPS source). How long will the iPad battery last?

ANSWER: Although the iPad claims to have a 10 hour battery, when you're using the GPS location services, the battery life is more like 4 to 6 hours. iPad Minis have better battery life.

8. Your iPad has a cellular plan, so it has its own built in GPS. How can you disable the iPad's GPS?

ANSWER: You can't. However, you can "override" the iPad's GPS. If you're using an external Bluetooth or WiFi enabled GPS accessory, like the Bad Elf Pro, (shown below), this will automatically override the iPad's internal GPS and provide more accurate location information.

Flying Without Electricity

We hear it all the time: "I still fly with paper charts because I don't have enough trust or faith in the 'glass' avionics". The saying goes, "What would happen, if all of a sudden, my magenta line went dark?" I'll continue with paper that doesn't fail, doesn't overheat, etc. Good pilots tend to be conservative when it comes to the tools they use to prepare and fly with. There is nothing wrong with this. GPS is perhaps the most powerful tool that's been added to our cockpits. GPS comes complete with sectionals, hi/low IFR charts, Arrival and Departure Procedures, and Approaches. The tendency is to be overly dependent on such a powerful tool. I wonder if our flying ancestors lamented in the same way when VORs came into being. I can hear it now, "Don't get too dependent on those fancy VORs… They might fail and if you can't remember how to fly an NDB, well, what then?"

Can you fly your Mooney without Electricity?

We have become very dependent on our alternator(s) and battery in the 21st century. G500/600, Aspens, G430/530s, GTN650/750, and the like. Could you carry out a flight plan in your Mooney without any of that electricity. Of course you need your magnetos, because we are talking alternators and batteries. Let's look at the various key phases of flight: 1) Takeoff, 2) Enroute, and 3) Approach and Landing.

Take off without Gauges

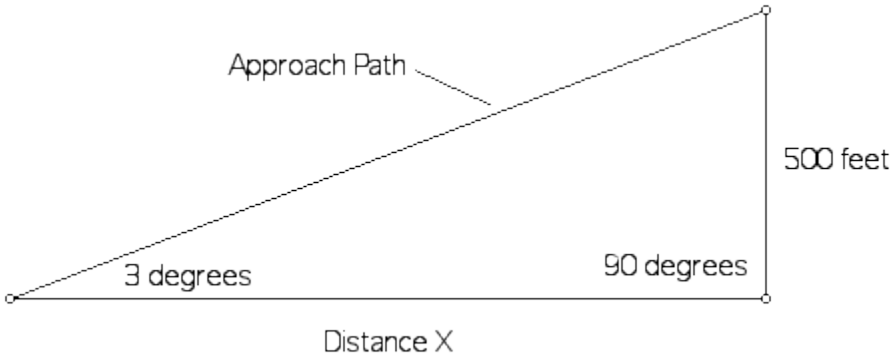
For this phase, let's remove your Altimeter, plus the Airspeed Indicator (ASI) as well. Can you fly with basic stick & rudder skills, or are you dependent on instrumentation? The answer should be, "I can do this very well". If not, consider grabbing a CFI and trying it. Imagine that you are on your takeoff run without your ASI. When do you rotate? This part should be easy. Just keep your trim at the takeoff setting and maintain some back pressure on the yoke. Your Mooney will lift off at exactly the moment it should.

This is how I feel in my Mooney before I add takeoff power

Do you know what attitude you need for something close to V_y or V_x? Again, this should be relatively easy since you probably have full MP and full Prop which is a known setting. Based on the view looking out the cockpit, you should be able to nail your V speed pretty well. If not, go practice with a CFI.

Back in the Pattern to Land

Can you judge pattern altitude as you enter the



pattern. You should be able to do this, especially at a known airfield, but really, unless you are a newly minted private pilot, most any field will do. How about your airspeed? Remember, no reliance on instrumentation other than MP and Prop. Again, you should attain your downwind speed based on known MP/Prop settings. Do you? All Instrument Rated pilots know what airspeeds they require in each phase of an Approach? For this exercise, you should also know them. What MP/Prop setting do you want for your standard downwind leg?

The single best aid to being at the right altitude before you turn your Base leg and again on your turn to Final, is to have ingrained a 3^{o} slope into your brain. If you have done this for all, or at least most of your approaches to landing, then that sight picture will guide you to the perfect descent rate without help from your instruments. Add power if you are coming up short, and reduce power if high. Leave the trim alone and your airspeed will be just fine.

The next step is to know when you are in the Flaps Extension speed range, so you can drop some flaps? If you have attained your downwind leg speed, you are certainly below the maximum flap extension speed, so this is a non-issue.

As you turn Base, if you are like me, you want to bleed some airspeed and extend your flaps. Pull a little power off and trim your nose up a little. For me, I want to slow to about 75 Kts on base; more if I'm heavy and less if I'm lighter.

The roundout and flare should be straightforward from here. You are not relying on your altimeter or ASI at this point in any flight. Roundout at the usual height and begin your flare. If you were a little fast, then you'll simply float. If you were a little slow, you may need to feather the touchdown with slight power.

To do this, you didn't use any "glass" instruments and fewer non-electrical instruments. This is the most basic Stick & Rudder skill and you should demand it of yourself. You probably will never need it, but it'll make you a better pilot; better on approaches and landings as well.

Enroute

This phase of flight will be the most fun with electrical instrumentation. Why? Because all you have in your toolkit are Dead Reckoning and Pilotage.

> **Pilotage** is the art of knowing where you are by reading a map and comparing it with the surrounding terrain and landmarks
>
> **Dead Reckoning** is the art of knowing where you currently are by using a compass, your ground speed, a clock and an initial known position.

Early Non-Electrical Navigation Aids

Remember, turning off your GPS unit(s) is not enough. You can't use the VORs, or NDBs. Nada. Just you and your Mooney to fly from Point A to Point B. For this exercise, I suggest you plan a flight of 1 ½ hours to an airport that you are not familiar with.

As you depart the pattern, select your heading based on your fligh tplan. If you calculated the winds, then your initial heading can be set using that computation. Did you use an E6B or cheat using ForeFlight? Only kidding.

Actual winds are seldom the same as forecasted, so you should assume that your heading will be wrong and diverge as your flight continues through shifting winds aloft. Without GPS, VORs, or any navigatoinal aids, all you have is pilotage. You can get pretty off course in 15 minutes, so it's best to mark your know location on a sectional every 10 minutes or so. If you have time, you can compute a heading corrected for wind, based on your location, whether it's left of, on, or right of the planned course.

When is the last time you tried to find an unfamiliar airfield without your magenta line? What direction is it from the nearest city/town? Is it near a major road, river or rail? When's the last time you double checked these? The color magenta makes us lazier and more dependent. There's nothing wrong with that, as long as you can easily and seamlessly transition.

Extreme Exercise

You are probably saying, "This is an extreme case that I will never encounter". You are probably right, but you should still be able to do all of this flying with minimal instrumentation. It's not that the "glass" instruments will fail, it's that you need to be able to execute all phases of flight without any of them and know you can do so with gusto. We don't need no stinkin' paper… we don't need anything to fly that Mooney with precision, except basic Stick & Rudder knowledge and "maintained" skills. CLICK HERE for a realworld example of relying on avionics.

Palm Springs

Phil and I have been to Palm Springs many times over the last few years. This time we went for the Aviation XPO, put on by Flying Magazine and Scheyden Sunglasses. We were also there for the CalPilots Member and Board meetings. After we landed and checked in with Signature (the Fixed Base Operator), we expected to spend a good portion of the day at the Expo. However, we were finished with the whole show in about two hours. We couldn't check into our hotel, so off we went to one of my favorite places, the outlets at Cabazon. I can't really recommend the Aviation XPO as it seemed a bit small and not well attended this year. In other words, I have reservations that the Aviation XPO will continue.

I did enjoy the talk by Rod Machado. He is always entertaining and this talk was no exception. I would have attended the Aviation Expo just to hear his latest jokes and insights into the pilots' mind and experiences. Another fun time was seeing the latest electric mini scooters that can be folded to fit into your plane's cargo space. URB-E makes this cute scooter and they had lots of demo scooters and test drive ramp space. I had to try one out, even though at $1,500 each, we weren't planning to buy one. They were fast and fun and very easy to drive. However, the exhibition guys weren't giving any deals. CLICK HERE for all the details.

The outlets are just a few miles outside of town in the Banning Pass area and very easy to get to. I have been there several times and it always seems crowded. I think it is on the bus tour line for foreign travelers. Phil and I like to stop for coffee and watch the world go by. It seems, by the bags being carried around, that everyone loves Coach purses and large hard sided luggage. I love how dressed up the tourist are, just to do a little shopping. Everyone seems to be wearing the latest in fashion trends while scooping up outlet deals to take back home. I would say the economy is booming if Cabazon is an indicator. Sadly, I didn't find any bargains for myself that day. It was finally time to check into our hotel and find some place for dinner.

Because we have been to Palm Springs so often, we wanted to check out a few new restaurants along Palm Canyon Drive. Our first stop was to a cute place on a side street called Greek Islands Café , located on East Andreas Road. We ordered a couple of Gyros that came with Greek salads. I recommend this place and eating on the patio was fun. It made us feel like we were eating on a Greek Island. After dinner we walked along Palm Canyon Drive and enjoyed looking into shops and stopping for Butter Brittle. Later that evening we felt like having drinks and something small to eat, so we hopped into another new restaurant called Alicante. We sat at the bar as the place was pretty crowded and ordered a couple of drinks. I looked around and saw that the couple next to us were eating Tapas that looked really good. I was right, the Tapas were good. We enjoyed our drinks and Tapas, but we really had a fun time with that Canadian couple sitting next to us. They shared a few funny and nice stories with us.

The next day we went back to the Aviation XPO for a meeting with the Cal Pilots members as Phil is a regional Vice President and is also helping them rework their magazine. I entertained myself with my iPad. After the meeting, we went for lunch and this time we went to a place that is a favorite of ours, Las Casuelas Terraza Mexican Restaurant. They have wonderful Margaritas and anything on the menu is good. Again, we walked around Palm Canyon Drive and found a candy shop that makes date shakes. If you have never tried a date shake you are missing out on fun in a glass. A date shake is not a shake to have on a date, but is made from local dates. Palm Springs is the only place I have ever found a date shake. We sat down next to the statue of Sonny Bono and enjoyed our shake while we watched people walk by. One thing about Palm Springs, it is an entertaining place to people watch. People from all over the world seem be there in all sorts of outfits; some pushing baby carriages containing small spoiled dogs.

The next morning was our scheduled day to depart. We are early risers so we were out looking for breakfast at 6 am. We found a great breakfast place called the Broken Yoke Cafe on Palm Canyon Drive. I think most of Palm Springs is still asleep at that hour, so we had the place to ourselves. After breakfast we drove to the airport and headed home. We always enjoy our time in Palm Springs and will be coming back again soon and as always, the best way to get there and back again is in our beautiful Mooney.

After Landing Check

We are all responsible Mooney pilots and we always do a runup engine and magneto check before each flight. This ensures that both magnetos are grounded and that there isn't any gunk fouling the spark plugs.

If you find an issue during the runup, then you might be grounded for a day or more.

PREVENTING FLIGHT CANCELLATION DEPRESSION

You can add a post flight runup to your routine. This will prevent disappointment on your next flight. Although the engine may have run smoothly during your flight, a problem could have occurred. Why not discover the problem after you land, rather than just prior to your next flight? You don't need a lot of RPM to do this. You just want to make sure that each Mag is still working correctly.

CHECK YOUR BATTERY

If you have a battery voltage gauge, take a look at it before you shut down. If it's charging, that might indicate a problem and there might be a good chance that you won't be able to start your Moony for your next adventure.

WIPE IT DOWN

It is also a good idea to wipe down your airplane. While you're removing bugs, you might also find a crack or a leak.

Send your questions for Tom to TheMooneyFlyer@gmail.com

Question: What specific things are done better at a Mooney Service Center? Annuals? Repairs? Mods?

Answer:

The advantages of a Mooney Service Center:

1. It would have all the tech data required for your Mooney, including Service bulletins, special letters, etc..

2. It would use the Mooney annual checklist. An Independent shop may only have the generic checklist.

3. It would have the special tools needed like the tool to check the gear pre-load, change shock discs, etc.

4. The MSC should have extensive Mooney experience; to be able to properly inspect your aircraft and actually save man hours. Because of their, experience, the time to repair items will be much less.

There are independent shops with good mechanics and some have good Mooney experience. We have worked with many shops across the country that maintain local Mooneys since it is more time consuming to have to fly a distance to a Service Center. We also rent special tools to help out.

I suggest that if you are one of these owners, that you might plan every few years to have a Service Center do your inspection to make sure you are up to date.

AUTHORIZED
MOONEY
SERVICE CENTER

Sporty's introduces Pilot Wings Watch

Now available from Sporty's is the Pilot Wings Watch, a custom Timex watch that tracks current time and zulu time.

The watch's analog and digital options can handle any two time zones, Sporty's officials note.

The watch has a stopwatch, countdown timer and alarm built in. An Indiglo night-light illuminates the dial in low light. The Pilot Wings Watch is water resistant to 330 feet and is also suitable for snorkeling and swimming.

Sporty's Pilot Wings Watch [5737A] is available for $69.99 and may be ordered at Sportys.com or by calling 1-800-SPORTYS.

Guardian Avionics of Tucson, Arizona, has received FAA approval to install its iPhone/iPad mounts in certified aircraft as Non-Required Safety Enhancing Equipment (NORSEE).

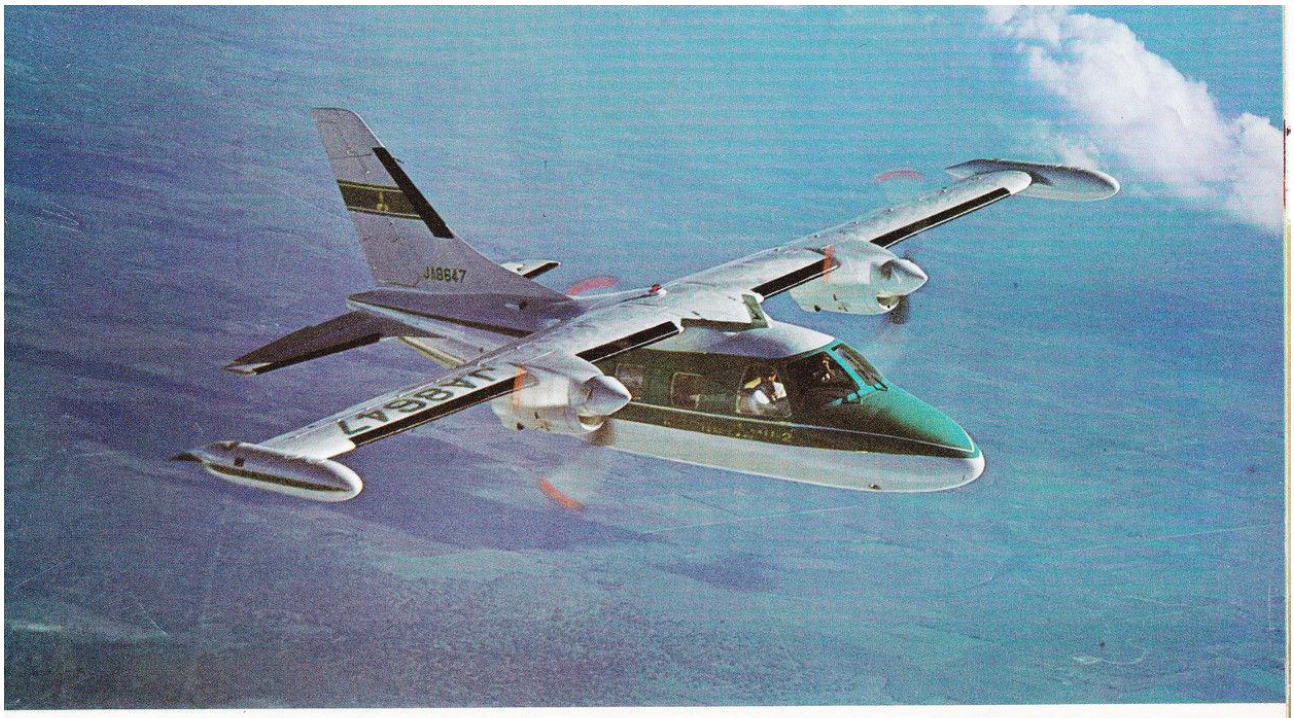
The FAA's Policy PS-AIR-21.8-1602, published in March 2016, encourages general aviation aircraft owners to voluntarily install safety equipment that is not required by FAA regulation. The policy expands a 2014 policy that simplified design approval requirements for angle of attack indicators. The NORSEE policy includes avionics, electronic instruments, displays, and mechanical equipment.

KEEP IT COOL

The iFDR Panel Mount was designed with cooling in mind. Each mount has a 5/8" tapered hose / tube port built-in, allowing you to attach it to a standard avionics cooling fan. Each panel mounting tray features cooling channels to circulate air behind your iPad or iPhone to keep it cool even under the heaviest of use.

The authorization allows any GA aircraft owner to add a panel mount, power supply, or combination of both. **An A&P mechanic must make a logbook entry as a minor alteration.**

Guardian Avionics said it is the first manufacturer to receive NORSEE approval.
The authorization covers all models of Guardian's iFDR panel-mount line for iPhone and iPad, as well as iFDR Power 150 and 250 USB power supplies. They may be installed as a minor alteration for Part 23 GA aircraft and Part 27 and 29 normal and transport category rotorcraft. More info



...new "one-of-a-kind"...the Mooney MU-2 with features found only in a modern jet-age aircraft

1 *Jet-type spoilers instead of ailerons make possible wide span flaps.*
2 *Large fowler-type flaps extend back and down for short field performance.*
3 *Turbine power and reversible props.*
4 *Airline type enunciator panel shows go-no/go check list of major systems.*
5 *Comfortable, airconditioned, pressurized business office for executive travel.*
6 *Pilot-planned front office for the professional pilot.*
7 *Short field performance second to none.*

Why shouldn't the MU-2 out-perform older converted piston models? The MU-2 was designed for turbine power and designed to take advantage of advanced aviation technology. You get all that's new . . . in the MU-2. Write for detailed information.

MOONEY MU-2 MOONEY AIRCRAFT, INC. • KERRVILLE, TEXAS

CIRCLE NO. 18 ON READER SERVICE PAGE

European Mooney Pilots & Owners Association (EMPOA)

November 15: EMPOA FastFlyin `Tech Saturday`by Röder Präzision

December 10: EMPOA Christmas Fly-In

MAPA Safety Foundation
Mooney Pilot Proficiency Program

2017 Dates to be announced

Florida Mooney Lunch Group

Contact Dave at daveanruth@aol.com or (352) 343-3196, before coming to the restaurant, so the group can have an accurate count.

November 12: Vero Beach (KVRB)
December 10: Punta Gorda (KPGD)

TMF PRODUCT REVIEW

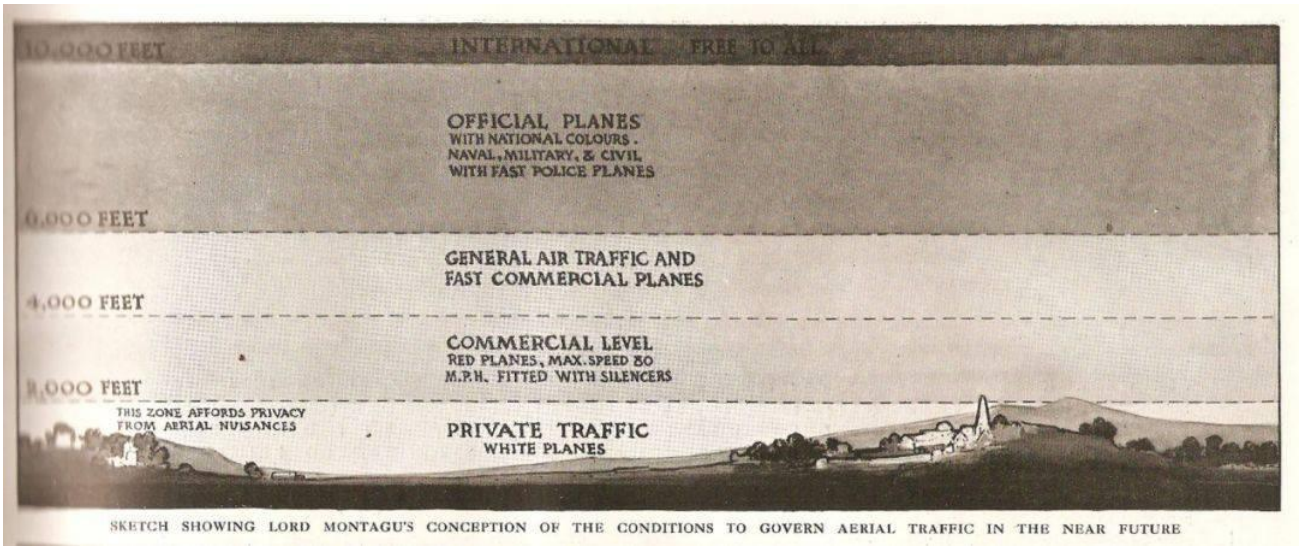
Garmin Telligence

With the latest software update to the GTN, you can talk to your GTN and direct it to perform almost any GTN function without taking your hands off the yoke. You can say things like "Show Traffic", "Tune to Tower Frequency", "Show Flightplan", "Show Approaches at Destination", "Show Time/Distance to Destination", "Show Fuel Plan", and hundreds more. **CLICK HERE** for a video demonstration of Garmin Telligence (4 min 45 sec). All of this comes with the latest software update from Garmin. You will also require Garmin's GMA 35 or GMA 350 Audio Panel and a Push-to-Command button that you place on your yoke. This enables speech recognition.

This is like having a co-pilot with you at all times. The GTN 650/750 also talks back if you say "Say" instead of "Show".

The value it seems, to us, is that it involves speech and hearing in the cockpit. The pilot no longer needs to be visually distracted in order to acquire information. It involves 2 more of our senses, enabling us to keep our focus on flying our Mooney instead of pushing touchscreens or micro-buttons. In this regard, it is a sort of "heads-up" display for audio. This will be a must in my cockpit. Will give a PIREP after some experience with the software.

CLICK HERE for more information.



SKETCH SHOWING LORD MONTAGU'S CONCEPTION OF THE CONDITIONS TO GOVERN AERIAL TRAFFIC IN THE NEAR FUTURE

Mooney Instructors Around the Country

Arizona

Jim Price (CFII, MEI, ATP). Chandler, AZ (KCHD). 480-772-1527. JasPriceAZ@gmail.com Proficiency training and IPCs. Website: www.JDPriceCFI.com.

Ken Reed (CFI, CFII, MEI, ATP), Tucson, AZ. 520-370-3693. Owns M20K and has previously owned an M20C, M20F & M20M. ***kr@klrdmd.com***

Boris Vasilev (CFI, CFII, MEI, AGI), Phoenix Area.
602-791-9637, freedomflightservice@gmail.com.Time in M20C through M20R models. Private commercial and instrument training, BFR's, IPC's, and FAA Wings.

California

Geoff Lee, San Martin, CA. 69050@comcast.net. CFII, 11,000+, Mooney Rocket owner. Teaching since 1969.

Don Kaye (Master CFI) Santa Clara, CA. (408) 249-7626, Website: www.DonKaye.com. Master CFI. PPP Instructor, MAPA, 8 years; Owner: M20M. Total: 10,265; Mooney: 8454; Instruction: 5641

Chuck McGill (Master CFI) San Diego. CA 858-451-2742, Master CFI, MAPA PPP Instructor, M20M, M20R, M20TN, Website: Click Here. Mooney: 6000; Total: 13,000
Instruction: 9800

Rodrigo Von Contra, Oakland. CA. (510) 541-7283, Rodrigo@vonconta.com. Sets record in a Mooney. 7,000 hrs. CFII & Gold Seal; Garmin (including G1000) training; Ferry flights (experience in Central & South Amer) transition training & Aircraft Mgmt; Owner: M20J/Turbo Bullet

George Woods, Woodland, CA (O41). (530) 414-1679, georgemichaelwoods@yahoo.com.
Fixed wing CFII, Multi-Engine, Helicopter, Glider & Gyroplane CFI. Owns Mooney Rocket.

Paul Kortopates, San Diego Area. (619) 560-8980, Kortopates@hotmail.com. PPP Instructor, MAPA; Owner: M20K/252. Total: 2500; Mooney: 2000

Mike Jesch, Fullerton, CA. (714) 588-9346 (e-mail is best), mcjesch@pacbell.net. Total: 20,000
Instruction: 1500, FAASTeam Lead Representative, Specialites: Airspace, Garmin 430/530, Proficiency flying; Wings Program, VP Pilot's Asso. Master CFI for ASME, IA.

Colorado

Chad Grondahl, Colorado Springs (KCOS), chad@sundhagen.com.
CFI, CFII, MEI & ATP, Mooney owner (M20F) and FAA Gold Seal Flight Instructor specializing in transition and proficiency training, mountain flying, flight reviews, IPCs, turbocharged aircraft checkouts,

ferry flights, and air-to-air photography of your Mooney. Experience: 4,500 hrs TT - 1,800 hrs Dual Given - 750 hrs in Mooneys (most models).

Ben Kaufman, Fort Collins, CO. (KFNL). (CFI/CFII) – (801)-319-3218 - bkaufman.mba@gmail.com.

Connecticut

Robert McGuire, Durham. Cell: 203-645-2222, rmcguire007@hotmail.com. MAPA Safety Foundation Instructor; founding partner, Aero Advocates Aviation Consultant. Total: 6500; Mooney: 5000

Winslow Bud Johnson, smgemail@aol.com, 203-348-2356. Bud specializes in teaching in the M20K and has logged more than 1,500 hours in that aircraft.

Florida

Mike Elliott Tarpon Springs. (CFII) Master CFI. 317-371-4161, mike@aviating.com. Quality instrument & commercial instruction, transition training, ownership assistance, plane ferrying. Mooney: 1600; Instruction: 600

Ronald Jarmon, *Panama City. (850) 251-4181. IAELLC@gmail.com. Total: over 7000. WILL TRAVEL! Will accompany customer out of Country, ferry flights, mountain flying, avionics training, Garmin Products. Total: over 7000. Web Site: IslandAirExpress.com.*

Robert McGuire, Hawthorne. (203) 645-2222, (Dec – Feb), rmcguire007@hotmail.com. MAPA Safety Foundation Instructor; founding partner, Aero Advocates Aviation Consultant. Total: 6500; Mooney: 5000

Ted Corsones, Naples. tedc@corsones.com, 239-263-1738. Total: 7500, Mooney: 4500, Instruction: 2000+. ATP & MCFI for MEL, MES, SEL, SES, Instrument Airplane & Glider. **Master Instructor Emeritus. He serves with the MAPA Safety Foundation as an instructor, treasurer, and chief financial officer.**

Georgia

Jim Stevens, Atlanta. USAF, Col, (ret), CFII. 404-277-4123. Instrument, commercial, IPC, BFR, transition training, ferry flights. 20 year owner of 1968 M20F. Total: over 6000; Instruction:1500

Kansas

John R. Schmidt, Fort Leavenworth and the Kansas City area. (COL, USAF, Retired). Instrument and commercial instruction, transition training, BFR. (913) 221-4937. jspropilot@att.net

Maryland

George "Brain" Perry, Maryland area (Frederick). Commander, USN, Retired.
Senior Vice President, AOPA Air Safety Institute. 5000+ hours TT in lots of different aircraft, including F-14 and F-18's. 1000 Hours in Mooneys of all flavors. 1000 hours of dual given. CFII / MEI / ATP / 525S. He currently owns and flies a 1999 Eagle M20S and fly about 200.
George.perry@aopa.org

Massachusetts

Ralph Semb, ralph@bowling4fun.com, 413-221-7535. I own and fly a M20S Eagle.

Minnesota

Joe Allen, Minneapolis. jp.allen926@gmail.com, 612-636-5216. I own and fly a M20J and am able to provide BFRs and Mooney Instruction.

New Jersey

Parvez Dara, daraparvez@gmail.com, 732-240-4004. ATP, MCFI SEL/MEL with an advanced ground Instructor rating. Parvez has owned a Mooney M20J and a Mooney M20M (Bravo).

New York

Jack Napoli, Long Island. TT 6,000 hrs & Mooney time 3,000, jacknapoli12@gmail.com , 631-806-4436. He has been flying since 1965 (before he owned a car) and has over 6,000 hours of total flying time including 3,000+ hours in Mooneys. He currently owns a M20K-231.

North and South Dakota

Doug Bodine, Commercial Pilot/Flight Instructor, Cell 605 393-7112, mei.cfii@gmail.com I am a retired USAF pilot, now working as a commercial contract pilot, so various model experience from WWII Warbirds through heavies. I have been flying Mooneys for 12 yrs and have a 201. I have been instructing since 1994 and am at about 10,000hrs. I actively instruct in tail wheel and turbine as well. I have flown all the common Mooney modifications – missile, rocket, screaming eagle, trophy, etc. Even have time in the M22 Mustang. (See also, Texas). Total: 9800; Mooney, 1300; IP: 5600/21 years

Ohio

Mike Stretanski, Delaware Municipal Airport (KDLZ), Delaware, Ohio, AGI, CFI, Mooney Owner/Flyer, Flight Physicals, Senior AME, Test prep/Written review prep, Transition Training, G1000, HP/complex endorsements. 614-975-1003.MFSTRETANSKI@gmail.com

Tennessee

Shawn Cuff, **Hohenwald, TN** (0M3) ATP/CFI-II-MEI. Flying an M20K with Garmin 530W for local company. Relaxed and pleasant flight instruction, flight reviews and instrument competency checks. Contact: **Shawn.M.Cuff@icloud.com** or 931-230-5400. Thank you for reading and safe flying! :-)

Texas

Austin T. Walden, Lubbock & Abilene. 432-788-0216, AustinWalden@gmail.com. PhD, Specializing in Models C thru J, www.WaldenAviation.com.

Doug Bodine, Commercial Pilot/Flight Instructor, Cell 605 393-7112, mei.cfii@gmail.com Retired USAF pilot, now working as a commercial contract pilot, so various model experience from WWII Warbirds through heavies. I have been flying Mooneys for 12 yrs and have a 201. I have been instructing since 1994 and am at about 10,000hrs. I actively instruct in tail wheel and turbine as well. I have flown all the common Mooney modifications – missile, rocket, screaming eagle, trophy, etc. Even have time in the M22 Mustang. (See also, North and South Dakota). Total: 9800; Mooney, 1300; IP: 5600/21 years

***Bob Cabe**, San Antonio. Cell: (210) 289-5375, Home: (210) 493-7223, bob_cabe@hotmail.com. Total: 5000; Instruction: 2000+. Pilot since 1965. Served as an instructor providing transition training for people purchasing new Ovations & Acclaims. Total: 5000; Instruction: 2000+*

Brian Lloyd, Kestrel Airpark (1T7). 210-802-8FLY, Brian@Lloyd.aero. WILL TRAVEL! Owner: M20K/231; Non-Mooney :-) specialist in spin training, upset recovery training, basic aerobatics formation training, tail wheel transition. Total: 8500; Mooney: 500

Mark Johnson, Houston area. mjohnsonf16@hotmail.com. 832-773-4409. CFII, SEL. Citation 501 and a King Air 350, F-16s and F-117s; currently a T-38 Flight Instructor at Sheppard AFB as a Reservist in the USAFR. Owns an '81 M20J 201. 5800 total hours, 2200 military and 1500 hours of it in Mooney aircraft.

Jerry Johnson, Southwest Texas**.** mooney9281V@hotmail.com. 817-454-2426. Commercial, SEL/MEL CFII, Glider, Typed in C-500's. Member MAPA Safety Foundation. Owned a Mooney for over 30 years. Total: 11,000 +; Mooney: 6000.

Vermont

Ted Corsones, Rutland. 813-435-8464, tedc@corsones.com. Total: 7500, Mooney: 4500, Instruction: 2000+. ATP & MCFI for MEL, MES, SEL, SES, Instrument Airplane & Glider. **Master Instructor Emeritus. He serves with the MAPA Safety Foundation as an instructor, treasurer, and chief financial officer.**

Virginia

William Wobbe, Leesburg. william.wobbe@gmail.com , (713) 249-7351. ATP, SES, SEL, MEL, MES, CFI, CFII, MEI, AGI, IGI, ADX. Time in M20B through M20TN models and very familiar with Garmin G-1000, GTN750/650, and G530/430 avionics. 1600+ dual given in Private through ATP training. MAPA PPP instructor and lots of experience in cross country all weather flying including TKS Known Icing Systems. Flight Service Station Specialist and familiar with iPad weather planning apps such as ForeFlight. I can answer your questions about the Washington, DC SFRA and ICAO Flight Plans.

***Joseph Bailey,** Winchester. (540) 539-7394. b747aviator@yahoo.com. ATP MEL, Commercial, SEL, SES, Glider. CFI, CFII, MEI, CFIG. EXP in Mooneys A-J. Providing initial & transition training. Total: 7800; Mooney: 500; Instruction: 3000*

Lee Fox, Fredericksburg. 540-226-4312, LCFox767@gmail.com. Mooney Staff CFI, Mooney Safety Foundation. Retired American Airlines Check Airman. Owns a M20J 201. Total time: Over 20,000.

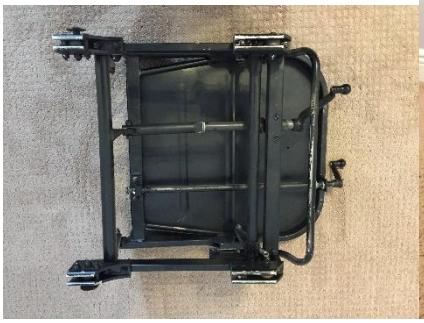
1994 Mooney M20M Bravo with TKS

Always hangared, complete documentation including flight journal with every flight made. No damage history. New mags, turbo, alternators, and avionics. Approximately 1750 TT. August annual, excellent compressions (78-75-76-77-75-78) and oil analysis.

Garmin GTN-750 plus complete new panel plus TKS Anti/De-Ice. Avionics upgrade include GTN-750, GNC-255 #2 Nav-Com, GMA-35 Audio Marker, GLD-88 Data Link, GTX-330ex Transponder, Flightstream-210 (iPad sync to Foreflight or Garmin Connext, MD-200 CDI (full ILS backup with GNC-255), MyGoFlight iPad panel mount plus iPad yoke mount plus custom USB panel mount power supply. WX-1000+ Stormscope. Well planned panel, full redundancy with dual batteries, dual alternators, dual vacuum, and iPad AHRS. Very safe IFR machine!

Yes, at some point will need an overhaul, but all components have been rebuilt or replaced at last annual and engine runs strong. 2000 TBO or beyond (part 91). Airmark overhaul quote $39,400. It's a lot of airplane for the price, easily +$250K to go up to anything better.

Our mission is higher, faster, and more pax, so the beloved Mooney must go. If it fits your mission profile, a great bird at a great price. $165K on Trade-A-Plane, $155K to **Mooney Flyer subscribers** (firm). Call 786-581-7225.



For Sale -- Mooney M20J, IO-360-A3B6D, Exhaust System. Removed recently to install a Power Flow Exhaust System. In good, serviceable, condition, according to the Mooney mechanic who inspected it at pre-buy (7 months ago) and the mechanic who removed it (2 months ago). Asking $450 plus shipping. Shipping calculated upon sale. Located in Perry, Oklahoma (F22). Call 405-338-8992.

Parts for Sale

I have several Mooney parts for sale from a 1969 G model. Brand new voltage regulator (never used). Instrument light rheostat controller, cowling plugs and like new fuselage/cockpit and tail feather covers. G model POH. Contact me at Wilson Brown, located in Georgia, 678-469-6182

Mooney Cover


This cover will fit a newer, long body Mooney. Asking $600 (When new, these covers cost $1,149), Contact Jason Herritz at Chandler Aviation, Inc. 480-732-9118 parts@chandleraviation.com

FOR SALE

1965 Mooney M20E Super 21

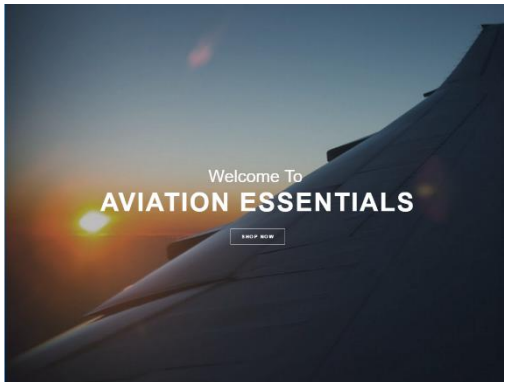
TT 6425, SMOH 780, SPOH 780, 200hp Lycoming IO-360-A1A, Hartzell Prop with "B" hub (no AD), 201-style instrument panel, manual gear and flaps, Century NDS360 HSI, KX-155 w/GS, KI-209, KX170B w/ GS w/ MAC1700 digital upgrade, KR22 MB, KR 86 ADF, Northstar M3Approach GPS w/ Argus 3000 moving map, CP125 audio panel, PS Eng. intercom, WX-8 stormscope, AT-50 transponder, Brittain wing leveler, standby vacuum system, IFR certified to 20,000 ft. UBG-16 engine analyzer, LASAR cowl closure and brake caliper rotation, tanks leak free, leather interior, inertia reel shoulder belts, all factory manuals on USB stick. Owned, hangared (AZ) and maintained by A&P/IA last 18 yrs. $45,000

K. McMullen, 480 460 0639, kellym@aviating.com

LASAR'S Free Site

Check out Lake Aero Styling & Repair's " LASAR" Web Site: www.lasar.com New, under "Mooneys for Sale", you can List your Mooney for FREE!

Also check out Parts, Mods, and Services. LASAR, est. 1975 **(707) 263-0412** e-mail: parts-mods@lasar.com and service@lasar.com



New and used aviation supplies.

In many cases shipping is free.

Thanks for looking,
Mooney N292LG

CLICK HERE to Browse/Shop

1978 Mooney 201VL
$ 85,500 New Price
MODEL 201 J - 200HP
mbmaksymdc10@aol.com
AIRCRAFT SERIAL# 24-0398
Lycoming IO-360-A3B6D

TIMES
AIRFRAME TOTAL: 5256

ENGINE TSMO: 878

Engine overhauled BY LYCOMING FACTORY INSTALLED 01/16/2004

Propeller governor INSTALLED 01/16/2004
OVERHAULED PRO - PROP
HOSE ASSEMBLIES FUEL OIL REWORKED 01/09/2004

GANN AVIATION

New propeller 04/01/91 MC CAULEY

Power flow exhaust system 2015
DYNAMICALLY BALANCER 5/23/95
VACUUM PUMP REPLACE 07/15/2015
NEW SKYTEC HIGH TORQUE STARTER and upgraded start relay
Electrical New zcftronics voltage regulator
INSTALLED M-20 AIR/ OIL SEPARATOR
NEW ENGINE TACK CABLE AND OVERHAULED TACH 2007

AIRFRAME
Alternate air door kit
Complete brake overhaul
PILOTS MASTER BRAKES CYLINDERS REPLACED 03/2008
ALL NEW TIRES AND TUBES
RIGHT and left FUEL TANK completely resealed 2015
12V CONCORDE RECOMBINANT GAS BATTERY

INSTRUMENTS
Altimeter, static, integrated system, transponder IFR

ANNUAL 09/01/2015

CORROSION TREATMENT each annual

RADIO
INSTALLED GARMIN GPS 430
INSTALLED GPS ANTENNA GA-56GPS
INSTALLED GARMIN 340 AUDIO PANEL

FOUR PLACE AUDIO I/C
ASPEN 1000 PRO
AVIDYNE TAS-600 traffic
STAND BY VACUUM GYRO
STORM SCOPE WX1000 PLUS
ENGINE EDM 700 4C A6 WITH FUEL FLOW
KFC 200 AUTOPILOT with altitude hold AND CONNECT TO ASPEN
1 COLLINS VHF 251ACOMM
1 COLLINS VIR351 WITH TO /FROM AIRTEX 345 406 February 2016
COLLINS TRANSPONDER TDR-950 UP DATED 03/2011
DAVTRON MODEL 811BDIGITAL CLOCK
NEW ENGINE TACK CABLE AND OVERHAULED TACH

GENERAL INFORMATION
ELECTRIC LANDING GEAR
ELECTRIC TRIM
ELECTRIC FLAPS
Control wheel steering
Navigation annunciation
System annuncator
ROSEN SUN VISORS
Mooney shoulder harness installed
Wing tip strobes
External power receptacle
Copilots brakes