The Mooney Flyer

The Official Online Magazine for the Mooney Community

www.TheMooneyFlyer.com

August 2016

THE PACIFIC OCEAN HAS NO MEMORY

Features

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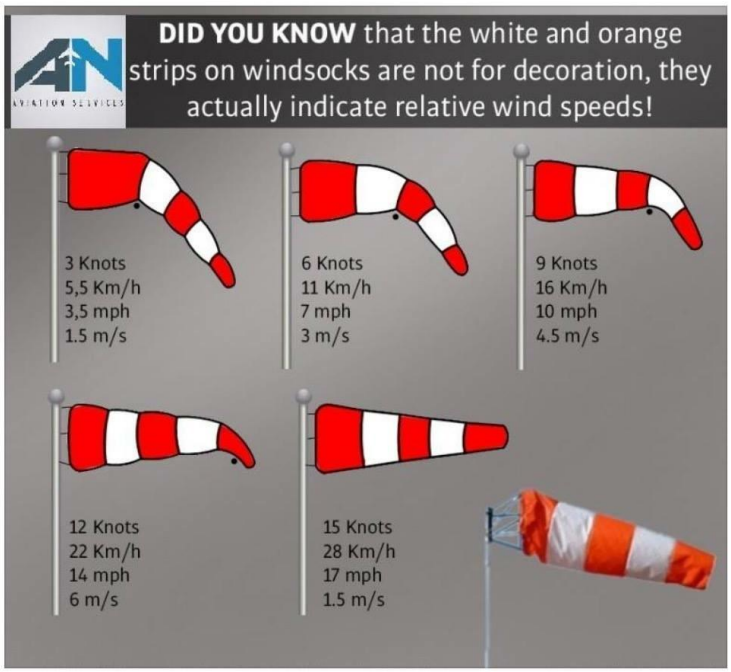
If you would like to donate to keep **The Mooney Flyer** healthy, please send your donation via your PayPal account to sales@TheMooneyFlyer.com

Our focus, since the beginning of The Mooney Flyer 5 years ago, has been to INFORM and ENTERTAIN our Mooney Community. By inform, we mean to provide technical information on the care and feeding of your Mooney and also to provide useful information on how to safely fly and enjoy your Mooney in all phases of flight. Let's face it, our Mooneys are demanding and they make us better pilots.

We also strive to entertain you while providing useful information. Rod Machado is a master at doing this. He makes us laugh while simultaneously providing useful information.

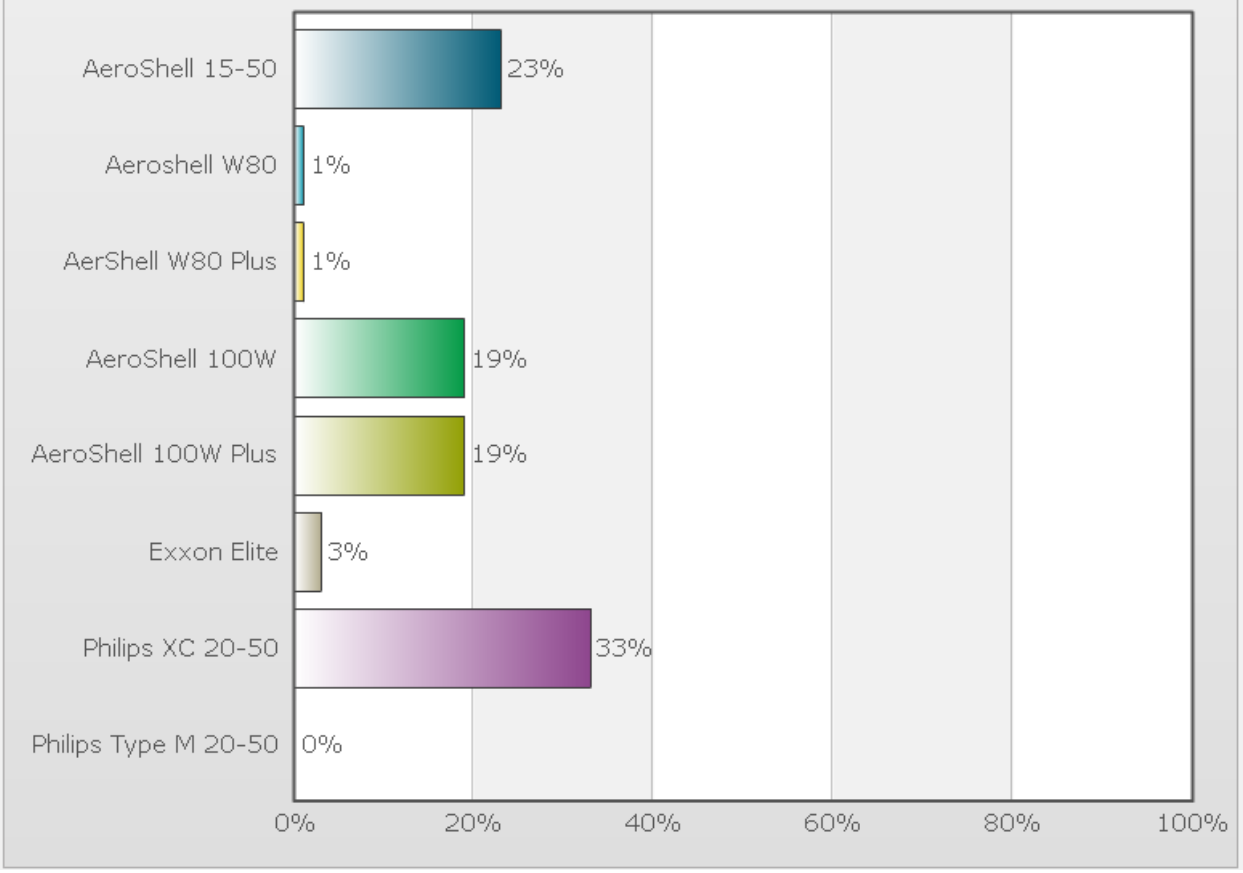
We don't charge for our online magazine, so our reward is your feedback and your contributions, in the form of articles. Over the years, we have had Mooney International contributions, LASAR, Top Gun Aviation, Weep No More, and others. We are so grateful for their support.



What Oil Do You Use?

Poll created by Phil Corman on 06/06/2016

Poll Results



Next month's poll: "I run my Engine:"

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

GOOD HEAVENS! THIS IS THE BEST MOONEY FLYER COVER EVER!!
Marty H

I was so pleasantly surprised to see Alex Honnold on the cover of the Mooney Flyer. Alex is an amazing young climber and I know that spot on Half Dome very well. It's called, "Thank God Ledge". I spent the night right there, and unlike Alex, I was tied into the wall when I climbed that route (North West Face) in the late seventies. It took us multiple days back then, compared to Alex's ropeless solo in 2012. It took him only 1 hour and 22 minutes to climb the vertical 2,000' with free climbing moves up to 5.12, which is quite difficult, even at today's standards. A very impressive feat!

Best regards from China!
Paul K

Thanks Phil and Jim. Another Great Issue!
Luis Acosta, Mooney International

RE: Inexpensive Panel Upgrade – I completely enjoyed reading Gary Miller's article. It's amazing what he accomplished and it looks fantastic. It may inspire me to do the same on my faithful E.
Tom M

RE: GPS Jamming – I read Jim Price's article and it helped me to understand more of the reasoning behind GPS outages, but I am still unhappy. We rely on GPS. Why doesn't the military, and I love our military, do their outage training during the night when most GA pilots are sleeping. Also, how are these outages going to work when ADS-B takes over? It is based on GPS. I'm totally confused. Do the Russians jam as much as the US?
Name withheld

RE: More Right Rudder – Things you can get away with in a Piper or Cessna, you cannot in a Mooney. You must be good on the rudder in all Mooney Models. I think that's why I love them. Mooneys make better pilots out of us. Thanks Jim for reminding us of the engineering and science behind it all. I especially liked the segment on spiral slipstream.
Ed M

Lake Aero Styling & Repair "LASAR"

"Serving your Mooney needs since 1975" in Lakeport, CA

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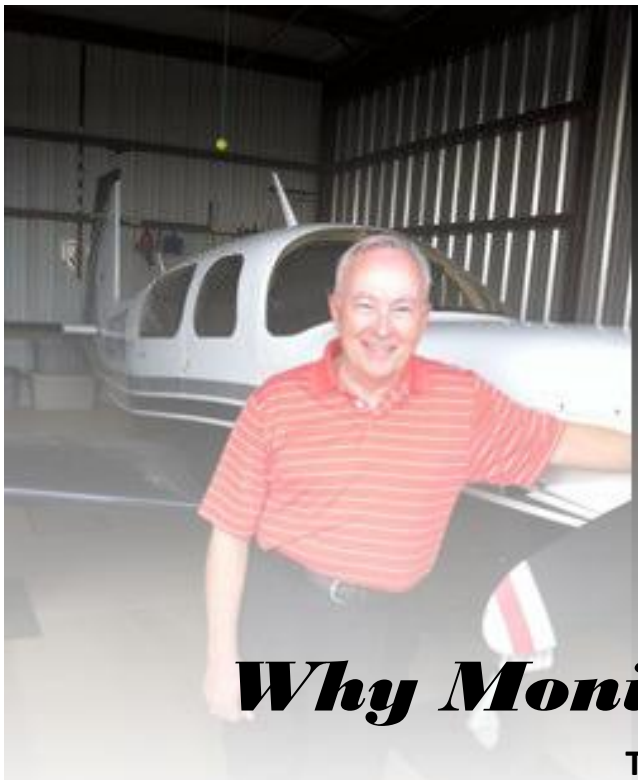
Parts: 707 263-0581, (800) 954-5619 Parts-Mods@lasar.com

The Clear Lake Sea Plane Splash In has been held annually in Lakeport since 1979, and is advertised as "the oldest and largest fly in West of the Mississippi." It will be held in Lakeport **September 15-18** (a week earlier this year, and NOT in conjunction with the Kelseyville Pear Festival.)

Paul and Shery Loewen, owners of Lake Aero Styling & Repair, extend a special invitation to our Mooney friends. There will be a welcome get together for early arrivals on Thursday evening, a wine and cheese event on Friday evening (cost $15), and a BBQ on Saturday evening (cost $20). AND Sea Plane flying events both Friday and Saturday. Please **RSVP to Shery at 707 263-0462** if you plan to attend. For more information: www.clearlakesplashin.com. Volunteers plan to provide transportation from the airport to the event, but in case you need it, there is also Riley's Cab: 707 263-1690

The annual **Kelseyville Pear Festival** will be held **Saturday, September 24**, and will feature musicians, dancers, over 100 craft and food vendors, as well as wonderful exhibits. It typically draws over 10,000 visitors. It is Lake County's most popular event! For more information: www.pearfestival.com. Riley's Cab: 707 263-1690



Jim Price

Guard

Co-Editor

Why Monitor Guard (121.5)

The Emergency Frequency is called "Guard" because everybody is supposed to listen to or "guard" the frequency, just in case someone has a problem.

The AIM encourages all pilots to monitor Guard while in flight and all air carriers are supposed to monitor 121.5 if they're not using the radio for another purpose. Military aircraft radios are designed so that Guard is always monitored.

For Mooney pilots, we don't have it that easy. We must actually tune in 121.5 on the second radio and then physically push a button to monitor it. Whew!

Here are a few great reasons to monitor Guard:

You Might Help Save Someone

ELTs, which broadcast on 121.5 VHF (Civilian) and 243.0 UHF (Military), are no longer monitored by the SARSAT system. So who does listen to these frequencies? Both frequencies are "guarded" by:

- Military Towers
- Most Civil Towers
- Flight Service Stations
- Radar Facilities

If you add yourself to that list of listeners, someday, you might be the only person in the world who can receive an important ELT transmission or a "Mayday" cry for help. What a great feeling that

would be, to know that because you were monitoring “Guard”, you were able to save a life or two; turning someone’s terrible and tragic day into a timely rescue.

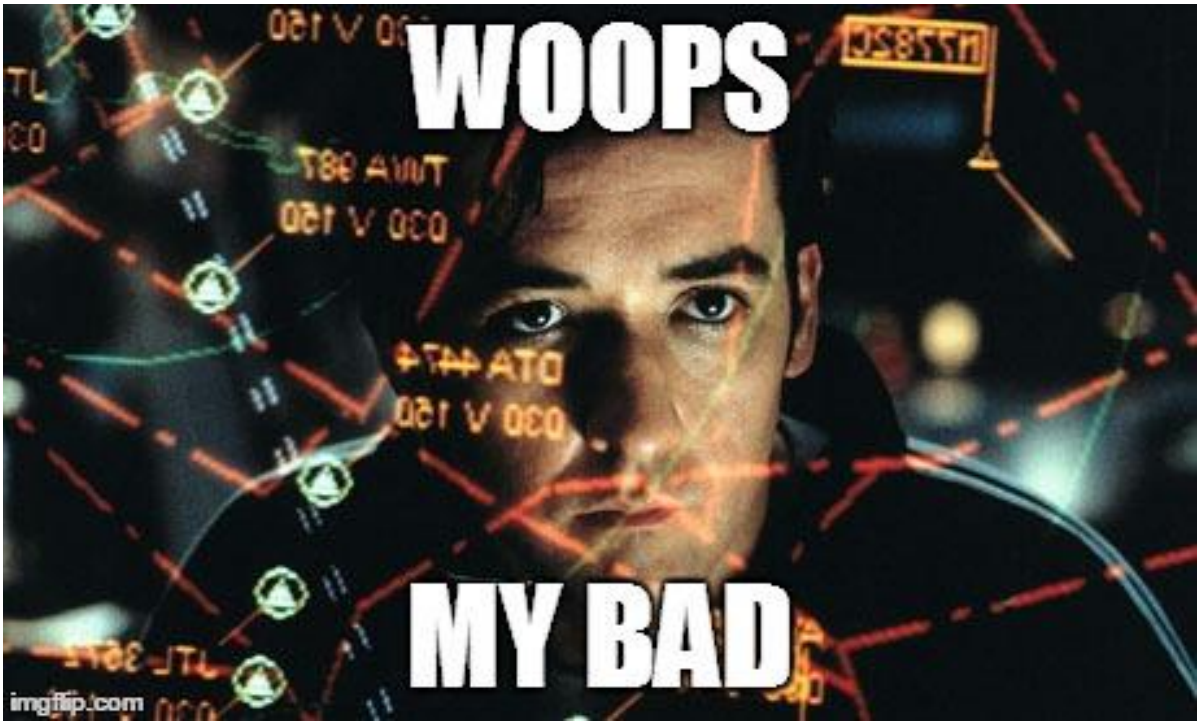
If You Hear an ELT, What Information Can Help ATC?

a) Your position at the time the signal was first heard
b) Your position at the time the signal was last heard
c) Your position at maximum signal strength
d) Your altitude and position relative to a navigational aid

It Might Come in Handy Some Day

Some day, you might be the guy who needs help. If you already have 121.5 set up, you can quickly, with the flick of a switch, transmit a Mayday call.

Sometimes, ATC Forgets to “Hand You Off”



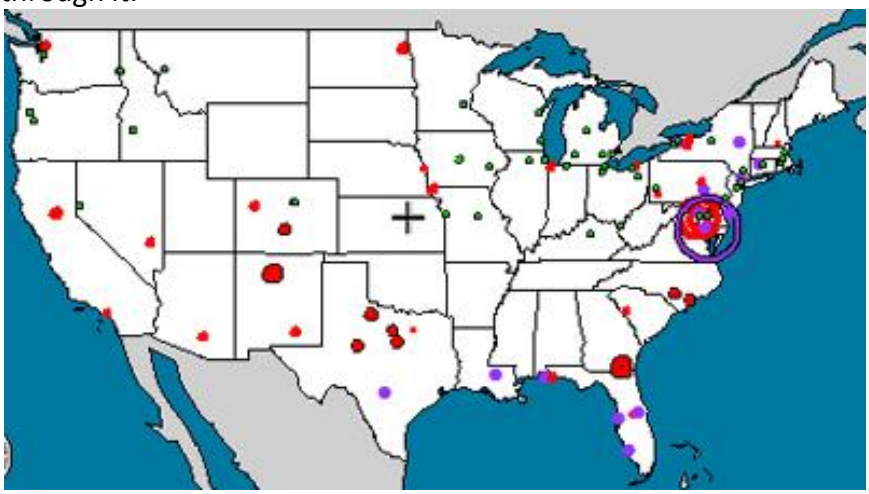
If the controller forgets about you and allows you to fly out of his or her radio range, the next controller, might try to call you on Guard. Why? Because he or she would want to give you the new and correct frequency. If you are monitoring Guard, chances are, you’ll soon be with the right controller.

Cheap Amusement/Entertainment

When a Southwest pilot forgets to select “Public Address” (PA) and accidentally gives his passenger announcement on the emergency frequency, you’ll be listening and most likely you’ll be amused! In addition, lots of stupid stuff is broadcast on “Guard”. You wouldn’t want to miss any of that!

Pop Up TFR Insurance

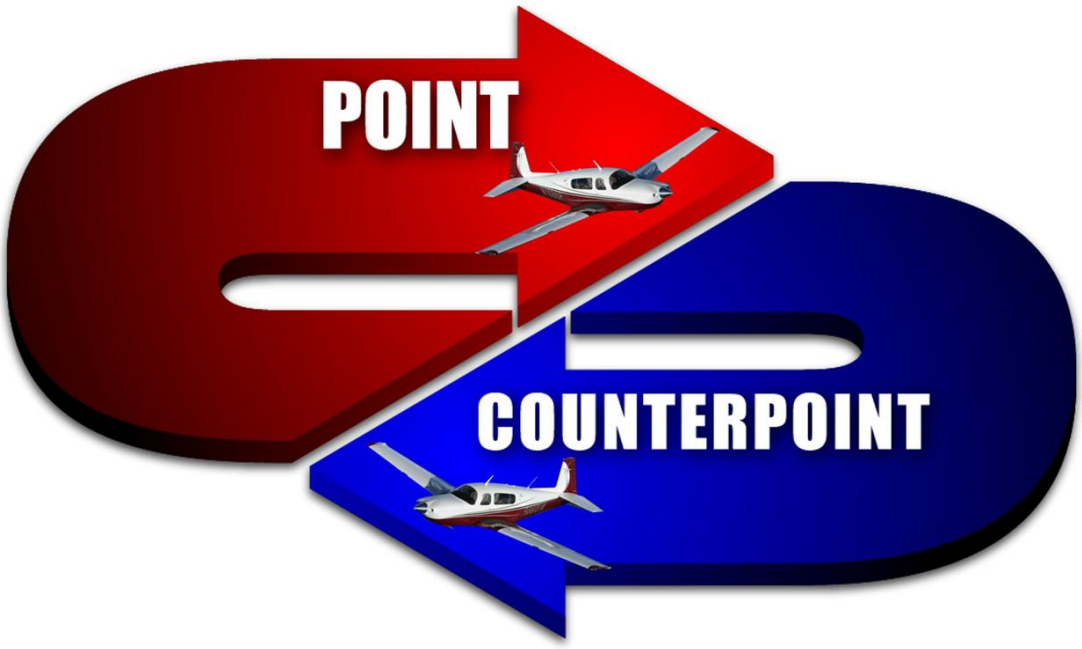
Here’s a great scenario. Let’s say that a new TFR has popped up and dang, you’re about to fly right through it.



If you're monitoring Guard, the controlling agency may try to contact you on 121.5. There's a good chance that you'll hear the controller's call and he or she might be able to help you avoid the restricted airspace.

If you failed to receive the first warning, but are still monitoring Guard, you can learn lots of great information. Stuff like where the F-16 on your wing wants you to land and park your Mooney for the next six months.

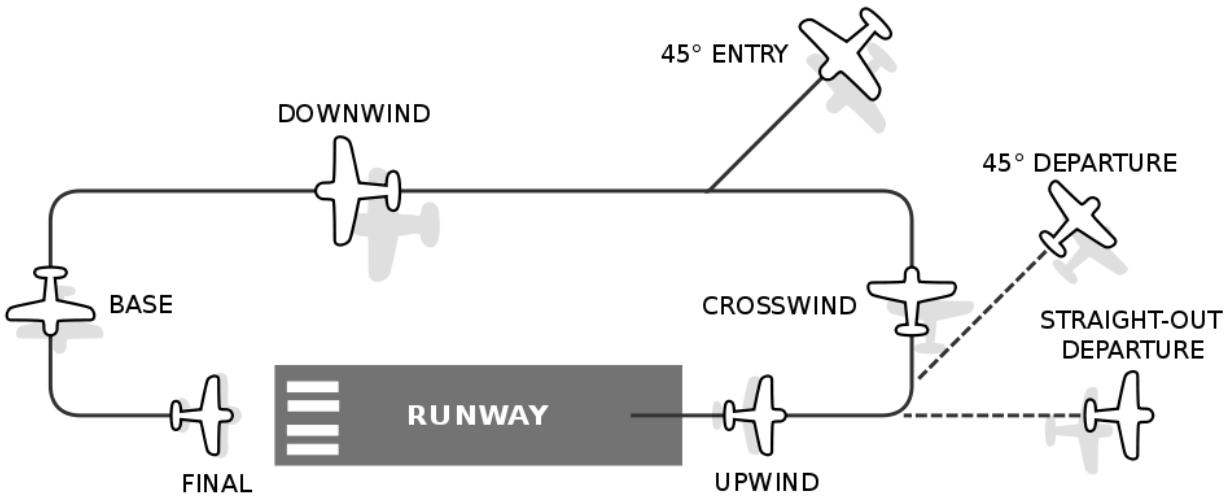
Why not try monitoring "Guard" for at least six months? See if you like it. Chances are, you will and in the process, you'll be able to better serve aviation.



Point vs. Counterpoint – Pattern Entries

The views, both *Point and Counterpoint are not the views of The Mooney Flyer. Our intent is to bring salient points to bear on this often, controversial topic. We intend it to be both informative and enjoyable.*

In the illustration below, a LEFT traffic pattern is shown. It is important, and irrefutable, that the FAR states that all turns in a LEFT pattern will be to the left, and vice versa for RIGHT traffic. Only the AIM, which is not regulatory, makes suggestions on a standardized approach.



CounterPoint	*Point*
When entering a pattern from the same side of the runway as the downwind leg, the correct entry should be a 45° entry to downwind.	We agree on this position.
When arriving on a long extended final, announce your intention with, " Mooney Nxxx on x mile final."	When approaching the airport on an extended final, you should turn and make a 45° entry to the downwind leg. Making a straight-in final is against the AIM.
Another entry when on an extended final is to make an overhead approach at pattern altitude until you are midfield and then make a 180° turn to downwind.	This kind of entry is just plain dangerous. "Negative Ghost Rider… the pattern is full."
When arriving in the traffic pattern from the opposite side of the downwind leg, simply enter midfield, at pattern altitude, and then turn downwind. You have excellent visibility for departing aircraft. When they depart, they are below you and you have an excellent view of the 45° and downwind traffic. It also minimizes your time in the pattern. Point's position (AIM) could put you at Turbine pattern altitude. It keeps you in the traffic pattern longer, and I think it's dangerous to make a descending 180° or more turn into the 45°. It just seems like a disaster waiting to happen.	The AIM recommends if you are arriving in the traffic pattern from the opposite side of the downwind leg, you should fly over the airport at traffic pattern altitude plus 500', then make a descending turn to a 45° entry.
Never make LEFT traffic if RIGHT traffic is specified. Unlike the other arguments herein, this comes from FAR 91.	We agree on this point.
On departure, fly straight on the runway heading or make a 45° turn in keeping with LEFT or RIGHT traffic.	We agree on this point.
Who has the Right-of-Way? My simple philosophy is that I will yield to anyone else in the pattern. It's just plain safer.	The FARs clearly delineate who has priority in the pattern.
When approaching an airport, it is imperative that you tune in the CTAF and listen for activity including wind and current traffic.	Forget that. Just call in with your position and ask.

Geoff lee.
CFII

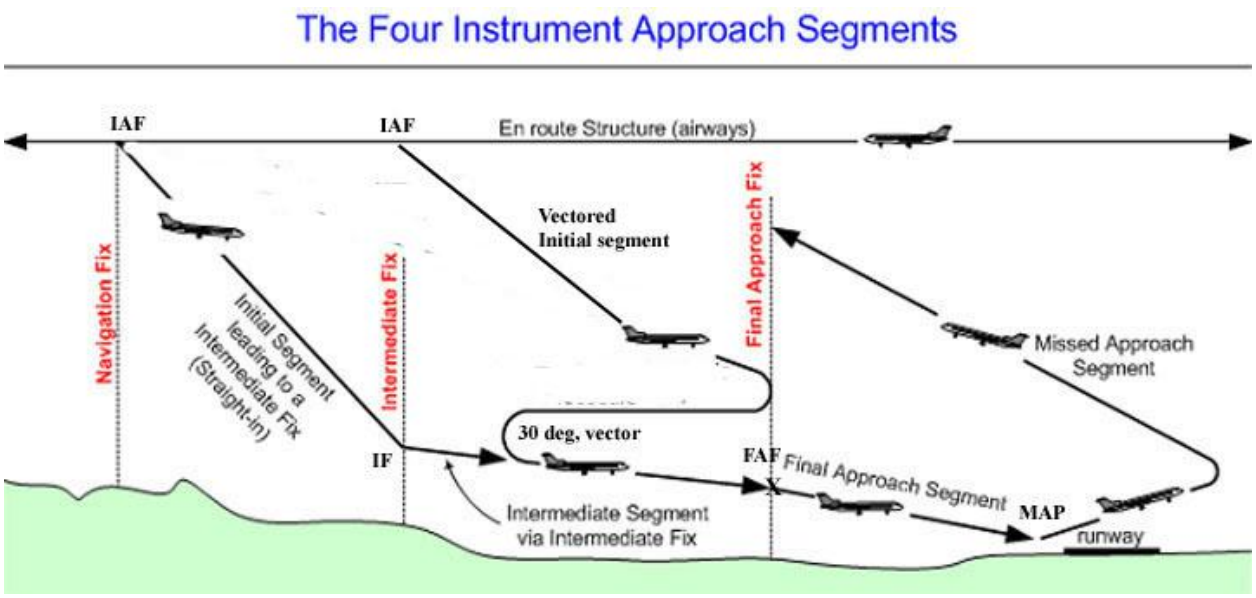
THE INSTRUMENT APPROACH

The term "**pilot**" is an ancient and honorable maritime title that has always implied that the holder of said title can return the craft and its occupants safely home to port. It is bestowed upon relatively few individuals. Because of this expectation, I am a firm believer that as a minimum, all *pilots* should be able to descend through a cloud layer and alight safely upon the earth, preferably at an airport. To that end, I have always taught my VFR students how to fly, with a reasonable amount of skill, an easy ILS approach. A large part of this ILS capability includes some knowledge of the approach plate and some controller assistance. It is incumbent upon each airplane pilot to learn how to do it and then keep refreshing that knowledge, so that he or she can safely bring a craft and its passengers back to earth, even under difficult or unusual circumstances. Never say never because if you fly long enough and far enough, you'll eventually encounter unforeseen circumstances.

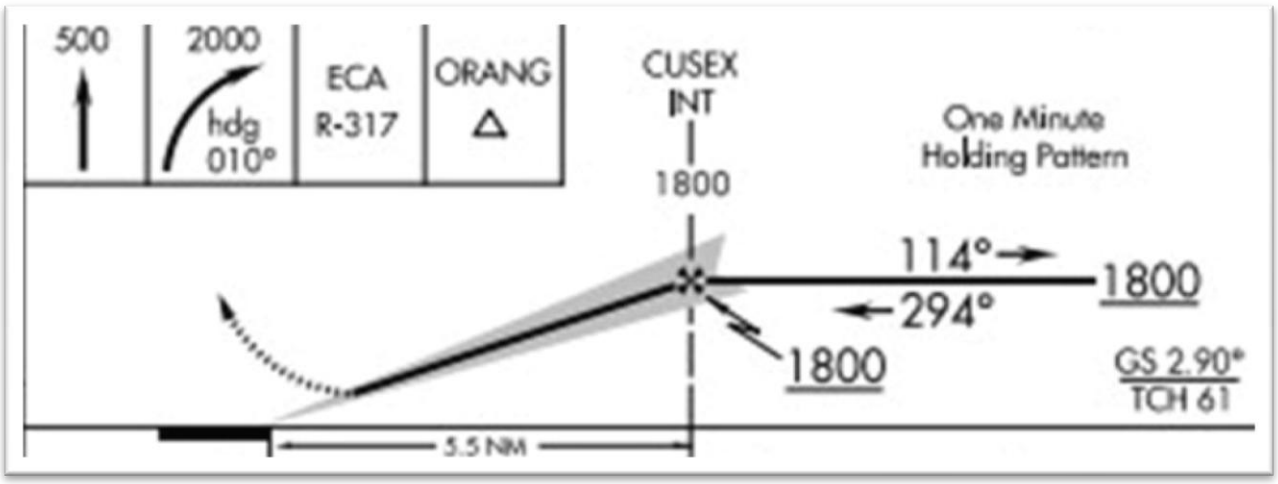
To do this, you need to understand the function of the pertinent instruments in your aircraft. The approach process can be learned and practiced in VFR conditions and without a view limiting device. A safety pilot is recommended. When requesting a practice approach, inform the controller that it is to be done in VFR conditions. *("Norcal, Mooney 231 ZN would like a practice ILS approach to runway 29 at Stockton in VFR conditions. We have Romeo")*

Instrument approach courses to an airport can consist of as many as four "segments" and these segments begin and end at "fixes". The flight path to follow is printed on an Approach plate. Two segments, the **final segment** and the **missed approach segment** will always be present. Depending upon the altitude required to ensure that you'll miss the obstacles on the approach course, the **initial** and **intermediate segments**, may or may not be present. The initial segment begins at an **Initial Approach Fix (IAF**), the intermediate segment begins at an **Intermediate Fix** (**IF**). It can also begin at the interception point of the approach course from the 30 degree line. The final segment starts at the **Final Approach Fix** (**FAF**). The **missed approach segment** starts, as you might guess, at the **Missed Approach Point** (**MAP**).

On a practical basis, when a pilot plans an instrument approach, he or she should fly into the initial approach segment that is most nearly in the line of flight to the desired airport. For planning purposes make a course line that takes you directly to an **IAF**. If that course turns out to end at the destination airport, you may be tasked with tracking **outbound on the inbound approach course** and a course reversal procedure *(procedure turn or holding pattern*), should the landing runway be in opposition to your track.



If you select an **IAF** that is located on the airport, that's probably the **most inconvenient choice** relative to pilot workload. The **most convenient choice is to request "*vectors to final*"** when you are **within 25nm of the destination**. The controller will usually ask if the pilot would like to do the **full approach or if he or she would prefer vectors**. "*Vectors*" seems to be the obvious and best choice, unless you just wish to exercise your skills. The controller will vector you to a position that is **within 30 degrees of alignment with the inbound course** to the airport and at an altitude that is close to the initial approach altitude (the *glide slope intercept altitude*). This altitude is indicated on the approach plate in bold print at the bottom of the page in the profile view.



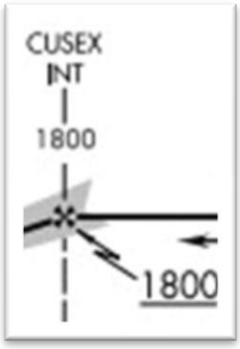
While being vectored, your airspeed should be somewhere between the end of the white arc and the gear extend speed. (*It is OK to extend the gear while being vectored, or when intercepting the Glide Slope*). During the vectoring process, you will be given altitudes and headings until the aircraft is within 30 degrees of the approach course. Then, as you approach the final approach course, you'll receive a final heading and you will be told to **maintain the G/S intercept altitude** until the aircraft is aligned with the approach course. Be sure to nail that altitude. Soon, you will be cleared for the approach and **the controller really wants to**

hear you read back that clearance. *A typical readback would be,"Maintain 2000 until established on the final approach path, cleared for the ILS 29 right approach at Stockton, Mooney 4 Victor Papa").*

No further vectors will be given. You are now expected to intercept and align the aircraft with the approach course under your own navigation. The controller will observe your progress as you align the craft to the final approach course and offer constructive commentary if you are badly aligned with the localizer or low on the glide path. When you are in the vicinity of his "approach gate", (about 3miles from the FAF), he will "hand you off" to the tower controller.

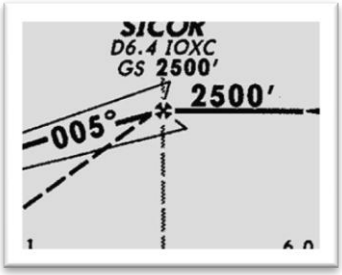
The foregoing process covers the **Initial segment,** which leads you from the enroute structure and terminates upon aircraft alignment with the inbound course line or an ***Intermediate Fix, or IF.*** Note that an **IF** is not always present on an approach plate. The **intermediate segment** lies between the approach course intercept point or the **IF**, (*if one is present)*, and the **FAF**. This segment is used by the pilot to accurately align **the track** of the aircraft with the final approach path. If the approach is a precision approach, (an ILS with a glide slope), the glide slope intercept should occur **no later than the FAF.** At the **FAF**, the aircraft should **be stabilized** on speed, track and altitude and in the landing configuration. If the pilot doesn't have the aircraft completely stabilized at the FAF, he or she should consider breaking off the approach.

The controller thinks in terms of an "approach gate" and guides you to a path, (the 30 degree intercept), that would lead you to a course intercept. The approach gate is one mile from the FAF or 5 miles from the runway threshold, whichever is greater. The controller will vector you on that 30 degree intercept course and issue a final heading that will allow you to intercept the inbound course no closer than 3 miles from the FAF. (With a ground speed of 120mph, that means you'll be at the FAF in 1.5 minutes). The controller's final heading is not a mandatory heading. A significant crosswind issue could require you to compensate/modify his or her heading in order to get you to the localizer intercept point by the shortest route.



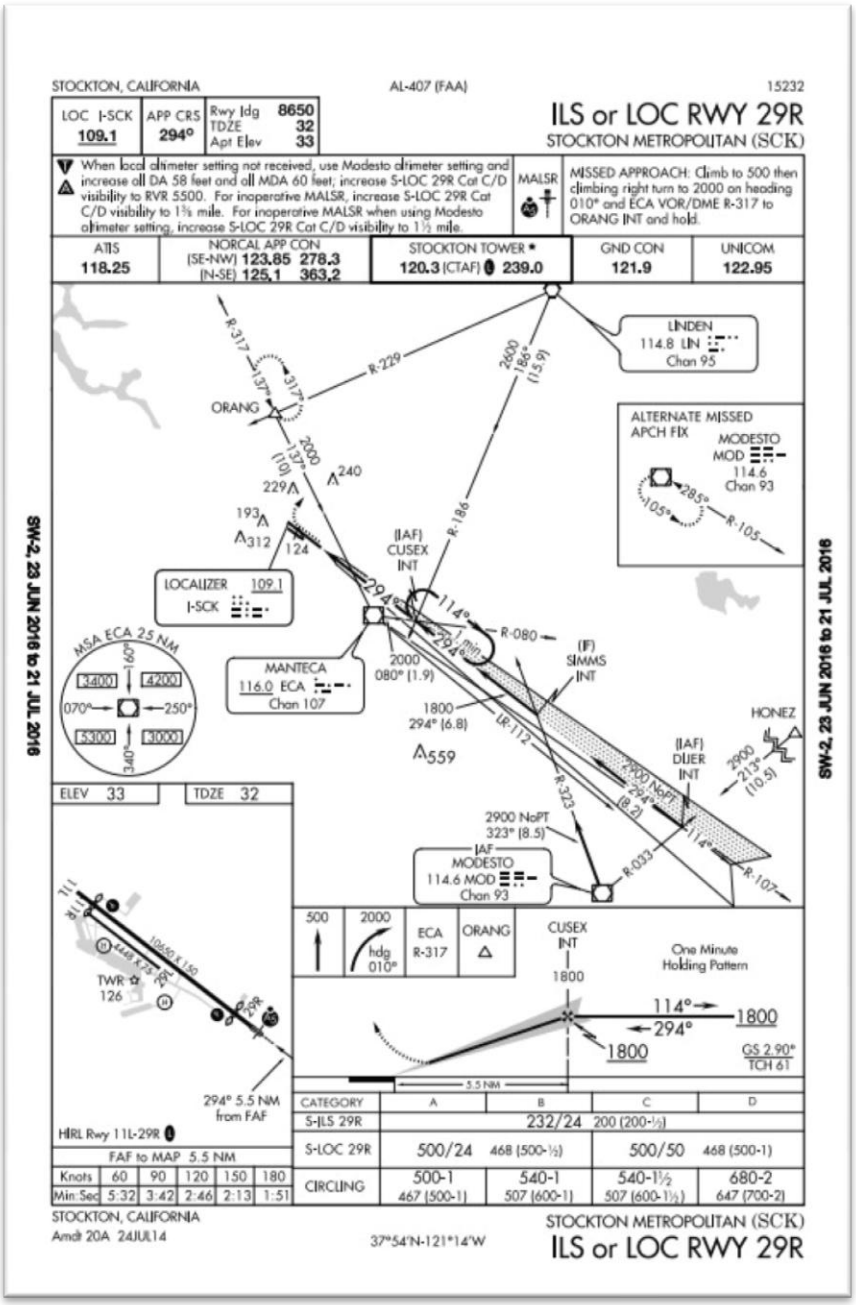
Government

The Maltese Cross FAF will always be depicted on **non-precision** approach plates. This depicts the **FAF for the localizer approach** (when the glide slope is not available)**.** The **FAF** for a **full precision ILS (with a glide slope)** is depicted on government charts by **a lightning bolt**. The Jeppeson manual defines the FAF as the **intersection of the glide path with the published interception altitude.** Jeppesen shows no additional label.



Jeppesen

Conveniently, the Maltese Cross and the GS interception altitude are shown in such close proximity, that they make negligible difference in the FAF location.



However, "***when ATC directs** a **lower** than published G/S path, the resultant intercept point is then the FAF."* (I've never had that happen. To me, it makes it appear like a movable target.)

The "glide slope interception altitude" is what I term the "**initial approach altitude**". This is an arguable term because it is associated with the **Intermediate Segment** of the approach. In the old country, in ancient times, we called it the "platform altitude", because you are about to dive off the platform. The altitude is very **visible on the approach plate in bold print, shown as** *1800 ft*.

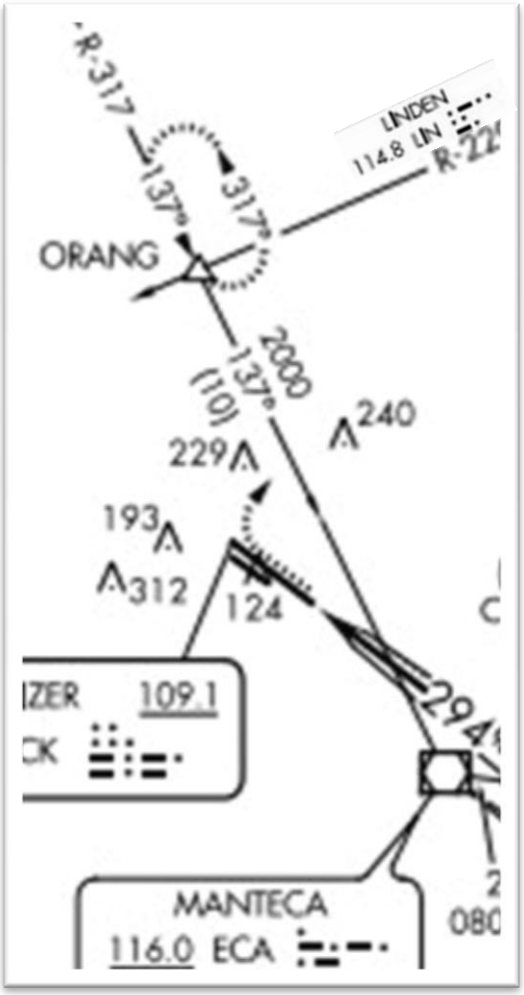
The Stockton ILS approach has one IF (SIMMS) and multiple IAFs. The initial approach altitude or glide slope intercept altitude is 1800 ft. When planning a course, choose the fix most convenient to your incoming flight direction. The fix that requires the most pilot work load would be CUSEX because it requires a course reversal in the holding pattern. *(To keep it simple, you should ask for and accept "vectors to final".)*

When crossing the FAF, you should have the aircraft configured to land and tracking on the localizer with the airspeed close to the white arc. The glide slope needle should be on center and a descent should be commenced at a rate that will keep that needle centered. An old rule of thumb for the appropriate descent rate in gusty winds, is to observe your GPS's ground speed and multiply it by five. The product will be a usable descent rate. For instance, 100mph x 5 =500fpm. The power setting should be one that will need **minimal change** until the runway appears**. Pitch to hold the Glide slope and use power to control airspeed, but resist throttle jockeying.** Allow some reasonable **variation in the airspeed; don't exceed the gear down speed or fall below 1.2 VSO.** Use the rudder to fix small heading/course deviations (within 10 degrees).

Eyes on the flight instruments:

Resist looking for the runway until you are very close to the missed approach altitude.

During the descent from the FAF, one should commit the mind to flying the "missed approach" path as depicted in the plate's plan view. A second Nav head is useful to set in a VOR radial for the missed approach departure path. If the runway or its "environment" does not appear at the prescribed Decision Height (DH), Visual Descent Point (VDP) or Minimum Descent Altitude (MDA), you are **at the Missed Approach Point (MAP)** and you must **immediately stop the descent and** push all the knobs forward. **Power up, pitch up, clean up** the gear and flaps and **establish a positive climb rate.** Tell the tower you are "doing the missed approach". (In this circumstance, I *don't like the phrase "**executing** the missed approach".)* I do not advocate pitching immediately to a max angle climb (VX). Instead, you should let the airspeed build so that the wing can work. In a Mooney, depending upon your horsepower, an initial pitch angle of 5 to 7 degrees is reasonable. The tower will then "hand you" back to the controller.



The **missed approach path** is illustrated in the plate's elevation view (bird's eye view) It's depicted by a dotted line, pointing to the ECA VOR 317 degree Radial. Join that radial and proceed to ORANG (formed by the Manteca R-317 and the Linden R-229). Enter holding at ORANG using a teardrop entry. The controller will ask you what your intentions are prior to reaching ORANG. You could elect to try it again, or proceed to an alternate airport.

You can print free approach plates for your favorite airport on "AIRNAV". G**o fly and practice**.

Be safe.

Geoff.

FAA Medical Reform is Here!

In a significant victory for General Aviation, FAA 3rd Class Medical Reform has been enacted by the US Congress and signed by the President. It was part of an FAA Authorization Extension which only covers the FAA until 2017. However, medical reforms will be permanent.

The FAA has 180 days to write new regulations. If, by July 15, 2017, the FAA doesn't have everything in place, the medical reform takes effect and the FAA cannot enforce the 3rdClass Medical Requirements. (The FAA cannot take enforcement action against a pilot for not holding a valid third class medical certificate as long as the pilot makes a good faith effort to comply with the legislation).

In the meantime, pilots need to continue to comply with the current medical certification requirements in order to fly.

The age of this expensive and bureaucratic process is actually coming to an end.

What are the Parameters

- You can fly an aircraft with no more than 6 seats
- You can fly an aircraft weighing up to 6,000 pounds
- There is no limit on horsepower or the type of landing gear
- You can have up to 5 passengers
- Pilots, if appropriately rated, can fly IFR and VFR in the above "covered aircraft"
- You must take an online FAA course every 2 years
- You cannot operate in Class A airspace (18,000' MSL and above)
- You can fly no faster than 250 knots (IAS)
- You cannot operate for hire. That still requires at least a 2nd Class Medical

Who's Eligible?

First, you need a current valid state driver's license. In addition, any pilot who has held a valid FAA medical in the past 10 years (prior to July 2016) may not need to take another FAA physical. This includes regular or special issuance medicals. Pilots whose most recent medical certificate was revoked, suspended, withdrawn, or denied will need to obtain a new medical certificate before they can operate under the reforms. Pilots who have never held an FAA medical certificate, including student pilots, will need to go through the process – one time only.

Yes, you'll need to have a valid driver's license, but wait, there's more. Every four years, you will need to have an exam with your personal, **state licensed** physician (not an Aviation Medical Examiner). During the visit, he or she will review an FAA specified checklist with you. Your physician will need to certify that he or she has performed an examination and has discussed with you all the items on the checklist, including medications. Your physician will then certify that he/she is unaware of any medical conditions that, as presently treated, could interfere with your ability to safely operate an aircraft. You will then need to make a note of the visit and include the completed checklist in your logbook.

You do not need to report the outcome of the visit to the FAA unless you are specifically requested to do so.

- The checklist will have two parts. The first part will include questions for the pilot to answer in advance of the exam. The second part will have items that the physician must go over with each pilot.

- The current third class medical process requires the doctor to note whether a patient's condition is "normal" or "abnormal" and explain any abnormal findings. Under the exemption, the doctor is directed to conduct a medical examination and "address, as medically appropriate, any medical conditions identified."
- Pilots who have never held an FAA medical certificate will need to go through the medical certification process with an aeromedical examiner only once. In most cases, even pilots who have a medical condition that requires a special issuance medical certificate will only have to go through the process once.
- The rules regarding medications will remain unchanged. Pilots who take a medication that the FAA disallows, **will still be unable to fly while taking the disallowed medication.**

IN ADDITION

Every two years you must complete a free online course on "aeromedical factors". This course will be offered through the AOPA Air Safety Institute and you'll need to keep the certificate of completion in your logbook. At that time you'll need to provide the FAA with some of the same information you do today, including authorization for the National Driver Register to provide your driving record to the FAA and a signed statement certifying that you understand that you can't operate an aircraft during a medical deficiency and that you don't know of, or have reason to know of, any medical condition that would prevent you from flying safely.

Here at The Mooney Flyer, we see this legislation as removing a barrier to pilots; a great event for General Aviation. With more pilots flying, the airports will an increase in utilization!

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If you have certain medical conditions, you'll need to get a one-time special issuance medical. What are those conditions?

The conditions are described in the legislation and are limited to an established medical history of the following:

- **Cardiovascular:** myocardial infarction (heart attack); coronary heart disease that has required treatment; cardiac valve replacement; and heart replacement.
- **Neurological:** epilepsy; a transient loss of control of nervous system functions without satisfactory medical explanation of the cause; and disturbances of consciousness without satisfactory medical explanation of the cause.
- **Mental Health:** personality disorder that is severe enough to have repeatedly manifested itself by overt acts; psychosis defined as a case in which an individual has manifested or may reasonably be expected to manifest delusions, hallucinations, grossly bizarre or disorganized behavior, or other commonly accepted symptoms of psychosis; bipolar disorder; and substance dependence within the previous two years as defined in FAR 67.307(4).

Pilots who have a clinically diagnosed mental health or neurological condition will be required to certify every two years that they are under the care of a state-licensed medical specialist for that condition. Details of how that certification process will work have not yet been determined.

Pilots with a cardiovascular condition will still need to get a one-time special issuance, but successful completion of a clinical evaluation will satisfy the process for getting an Authorization for Special Issuance of a medical certificate with no mandatory waiting period.

Here at The Mooney Flyer, we see this legislation as removing a barrier to pilots; a great event for General Aviation. With more pilots flying, the airports will have an increase in utilization!

Zen and the Art of Mooney Maintenance

If you are or were a motorcycle enthusiast, then you certainly have heard of Robert Persig's, Zen and The Art of Motorcycle Maintenance. I am not Robert Pirsig by any means, but I have learned a few things by assisting my Pilot-In-Command with the upkeep of our beloved M20S Eagle.

The Zen Aspect

The first thing about tending to our Mooney is that there is a certain Zen about cleaning her, tightening screws, looking at odd stains, new scratches, or just something that's different than the last time I looked. Mr. Miyaga, from The Karate Kid, said it best: "Wax On… Wax Off". There is a definite peaceful transition that takes place as I begin applying "*Wash Wax All*" to the leading edge of our Eagle after a flight. The solution is applied and then gently rubbed off to a clear shiny surface. It relaxes and focuses my mind. I don't want to sound too transcendental here, but it's just a peaceful, tranquil experience, and while I'm at it, I block out all the items/issues surrounding my day. These are only distractions to waxing on… waxing off. Unlike other possessions, our Eagle is different. She's a little like family. This sounds a little corny, perhaps, but I think many Mooney owners secretly feel this way.
While doing these upkeep items on the Eagle, my attention is focused and undivided. It takes minutes to clean, wax, and polish. During that time, I see items on the plane that can be missed on a typical pre-flight. I don't miss things during this activity, and again, it's focused. Who would have thought that washing and waxing an airplane, checking for loose hardware, and seeing things that look out of kilter, would be energizing. I feel like I learn more about her; such as the slight free-play in the tail is fine, but too much indicates a problem. Sometimes I think I enjoy working like this on the Eagle almost as much as flying in her.

The Practical Aspect

Enough of my transcendental stuff. Spending upkeep time with the Eagle has a practical aspect to it. One time while clearing bug guts off the nose, I noticed some dry grass inside the air inlets. My pilot pulled the top cowling and we found the beginnings of a bird's nest. Dry grass and a hot engine adds up to a big problem in flight. We subsequently made a set of "plugs" to prevent nesting when the Eagle is parked outside at transient parking.

On another occasion, I found a spider in the cockpit. It wasn't a friendly type of spider, but one with some venom. Imagine my pilot taking off, or on short final, and being distracted or bit by a spider. Because of some extended time in the cockpit on a Saturday morning, cleaning the windows and getting elbow grease off the arm rests, this gave me time to spot an elusive and poisionous western spider.

It's easy to attend to the top surfaces. They are easily seen and not difficult to reach. Some days, I get ambitious and want to clean underneath the wing. There's always the opportunity to clean up mud and oil stains on the belly. On occasion, I have found loose or sometimes missing screws or cam locks (one of those weird screw-like things that you twist and they lock into place). Again, my pilot usually catches these things during a pre-flight, but if we don't have the missing screw, then we have time to find one. This way, a little missing screw won't delay our next takeoff. This stuff is useful and happens because of the "Zen Zone".

I have a small dose of OCD (Obsessive Compulsive Disorder). I prefer to think of it as, "I like things right". Regarding the engine, my pilot is more focused on clean/gapped spark plugs, clean filters, fresh oil, fresh oil filters, and lots of other things like that. Me? I want the engine to look nice, so I take some solvent, a rag and a toothbrush and removed the grime. Oil leaks are tricky things to find, and sometimes to spot. But, on one occasion, I found an area that had a light spray of oil. Before obsessively wiping it down, I brought my pilot over. He couldn't determine the source, so we cleaned it up, fired up the engine, and found a loose connection that was enabling oil to spray on the engine. He tightened it up and everything was A-OK. I learned that a tiny bit of oil looks like much more than it really is. We caught it early, thanks to my Zen time.

This Zen stuff works on other people's Mooneys, too. One time we flew up to Sunriver, Oregon with friends. Towards the end of their descent into Sunriver, they lost Alternator power. After landing, our friend ordered a replacement Alternator so it would arrive before our intended departure in four days. The pilot removed the cowling to see if everything looked OK. He felt that the connections were good. But Mrs. Zen had to touch everything and when I touched the main cable on the alternator, the connection came off in my hand. The bracket thing had broken, even though the connection to the bracket looked good.

My husband, the pilot, says that the Eagle talks to him all the time. If he notices any changes in temperatures, vibrations, etc., it's the Eagle trying to communicate. If you take the time and get into a Zen state of mind, it's amazing what your Mooney will tell you. I love our Mooney!

Send your questions for Tom to TheMooneyFlyer@gmail.com

Question 1: How do I know that I need to do a top overhaul? What are the symptoms?

In general, top overhauls come at about 2/3 of the time to TBO, when the engine has the following symptoms:

A. When oil consumption exceeds the allowable limits. That limit is usually when your engine is using about one quart an hour. Refer to the factory specs for your engine.

B. When the compressions fall below allowable limits. There are totally different methods between Continental and Lycoming engines. Again, refer to the technical manuals for each method. Valve leakage is never allowed. If we find a leak, we will usually pull that cylinder for repair.

C. When engine performance deteriorates. That's hard to pin down, but if your rate of climb or cruise speeds are less that what the "book" calls for, then the next step is to do a compression test. Just normal wear will show up in poor performance.

For high oil consumption, an inspection of each cylinder is required, since a broken oil ring in just one cylinder could cause high oil consumption. Also, on compression tests, you look at each cylinder. Once we had two dead cylinders on a TSIO-360 and these were found on a compression test. If you have a turbocharged engine, the turbo will make up for low compressions and on this engine, the cylinders were opposite each other and there was no imbalance. The owner did not fly very high, so the engine was producing power. With all turbocharged engines, the key is the critical altitude for the engine. They all run out of 100% power at some designed altitude. In the case of the TSIO-360, that's about 15,000 feet. That is the altitude when your manifold pressure will start dropping. If your engine is dropping off at 12,000 ft, you have a problem.

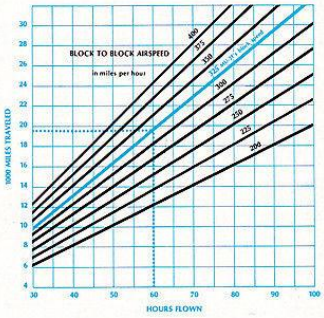
Many things need to be considered and that usually involves cost of new cylinders versus overhaul. You can send your cylinders in for overhaul, which will involve extensive downtime, or you can buy overhauled cylinders, which are hard to find these days. You can buy new cylinders. Roughly, each overhauled cylinder will cost about $1,000; new cylinders will cost about $2,000 each. These costs will vary for each engine. Turbocharged engines tend to require topping before the engine overhaul, mainly because they can operate at 100% power into the higher altitudes, whereas aspirated engines lose power from the ground up. The labor time for Lycoming cylinder changes is longer. That's because the shop may have to change pushrods after a cylinder overhaul. Why? The dry tappet clearance is measured after the cylinder is installed and adjusted by changing pushrods, which come in several lengths. Because of this, we keep the pushrods in order when we remove Lycoming cylinders.

the 340 mph MU-2F Speed Merchant puts you time, miles and money ahead

Extra speed can mean extra miles, thousands of extra miles. For example, an average flying time of just 60 hours per month at the MU-2F's block speed of 325 mph will cover 19,500 miles, or 234,000 miles in just one year's operation. The MU-2F is 50 to 100 miles per hour faster than other prop-jets in its class. This means in just one year an aircraft 75 mph slower will fly 54,000 less miles than the MU-2. Looking at it another way, the slower aircraft will have to fly 216 extra hours to cover the same distance the MU-2 has traveled. It will burn about 13,000 extra gallons of fuel, will require two additional 50-hour inspections, two additional 100-hour inspections and its engines are 216 hours nearer an overhaul. This means thousands of extra dollars in operating costs.

The MU-2F is fast, is pressurized and is air-conditioned. It is licensed to fly in known icing conditions and is second-to-none in rugged construction.

Before you settle for less, be sure to test-fly the fast one—you haven't fully evaluated prop-jets if you haven't flown the MU-2F "Speed Merchant".



Check the speed/miles chart above. Compare the block speed of any other prop-jet in the MU-2 class and you will quickly see just how many more air miles per month the MU-2 can give you.

NATIONWIDE SALES AND SERVICE

Capitol Aviation, Inc. Springfield, Illinois
Leavens Brothers, Ltd. Toronto, Ontario, Canada
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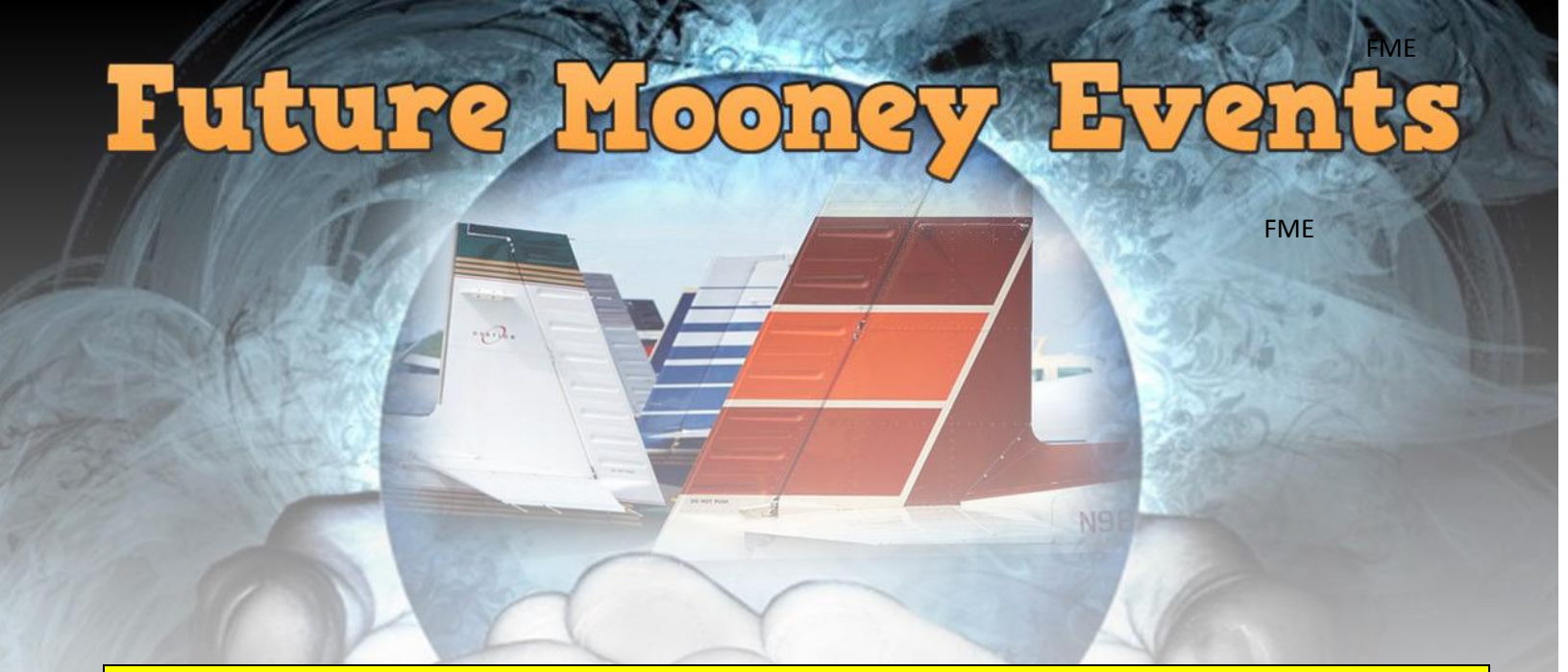
Southern Aircraft Sales Jasper, Tenn. (Chattanooga)
Qualitron Aero Burbank, California
Aero Distributors Willoughby, Ohio
Lakala Aviation Kalamazoo, Michigan
Roach Aircraft Broomfield, Colorado
Campbell Air Service Pittsburgh, Pennsylvania
Richmond Aviation Richmond, Virginia
Mooney Southwest Midland, Texas
Skyway Air Orlando, Florida

MOONEY MU-2

MANUFACTURED BY MITSUBISHI HEAVY INDUSTRIES, LTD.
MOONEY CORPORATION • SAN ANGELO, TEXAS

Future Mooney Events



Clear Lake Sea Plane Splash In, Lakeport, CA, **September 15-18. For more information, see page 6.**

MAPA Safety Foundation
Mooney Pilot Proficiency Program

September 9 – 11, Manchester, NH
October 7 – 9, Mansfield, OH
CLICK HERE to register

August 13: Lake Wales (**X07**) - We will be driven by airport personal 4 or 5 minutes away to Woodies BBQ
September 10: Lakeland (**KLAL**)
Contact Dave at daveanruth@aol.com or (352) 343-3196, before coming to the restaurant, so the group can have an accurate count.

August 20, 2016. Fly-In Movie Night, Oceano Airport (**L52**), Oceano, CA. Featuring *The Princess Bride;* costumes are optional. Free admission and camping available.

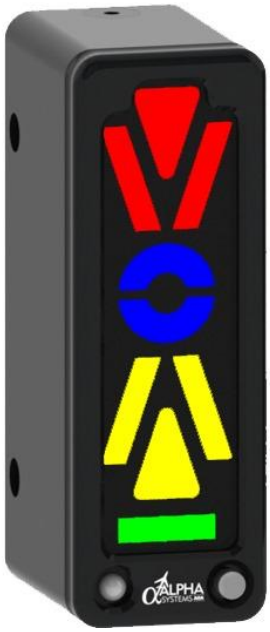
Mooney Summit IV

An educational event and social gathering, will once again be held at Panama City Beach, FL, **September 29th thru October 2nd, 2016. CLICK HERE for more details.**

MAPA Homecoming Convention

The Inn of the Hills, Kerrville, TX. **Oct 19 – 23, 2016. Click Here to Register.**

Elko Regional Airport is holding its annual "Airport Appreciation Day" on Saturday September 10th. We would appreciate your support of this wonderful event. Over the years, many pilots have flown into Elko for this fun filled day. If you fly in, the BBQ luncheon is on us! We are also seeking EAA pilots who might be interested in conducting Young Eagles flights on the 10th.



Developers of Non-Required Safety Devices Don't Need an Expensive Certification (NORSEE)

In an effort to encourage the use of non-required safety equipment in general aviation airplanes and helicopters, the FAA has taken further steps to make the installation of such equipment less expensive to the end user. Previously, all equipment installed in the airplane had to go through an arduous certification processes. This made it very expensive to bring new equipment to the market.

The intent of a new policy statement, named **Approval of Non-Required Safety Enhancing Equipment** (NORSEE), which was published earlier this spring, is to allow a greater number of pilots access to equipment that makes flying safer. In addition, if the equipment should fail, the effect would be negligible. The policy statement is an expansion of the simplified design approval and installation requirements for angle of attack (AOA) indicators, which was published in 2014.

But NORSEE goes far beyond the initial focus on **AOA**. Equipment under the new policy includes **traffic advisory systems, terrain awareness and warning systems, attitude indicators, fire-extinguishing systems, autopilot or stability augmentation systems and more.**

Equipment approved under NORSEE will be published on the FAA's website at https://www.faa.gov/aircraft/air_cert/design_approvals/norsee/

URB-E

It's a compact foldable scooter that fits in most GA aircraft. URB-E stands for "urban-electric." It can cruise at up to 15 mph and has a 20 mile range on a single charge. The company reports that at the end of the charge, just plug into any regular outlet for 3.5 hours you're good for another 20 miles.
According to their website, the URB-E models range in price from $1,500 to $2,000.
More than 1,600 have been sold since their launch last year.

iPads can be Cool

The ACTIVE COOLING MOUNT is compatible with iPad Air Versions 1 & 2, iPad Pro 9.7" and iPad mini Versions 1, 2, 3, and 4. Also, the cooling mount can be attached to a Ram Mount. **Learn more at https://x-naut.com/**

The Future of Avionics Is a Card?

The Flight Stream 510 MultiMediaCard (MMC) provides wireless connectivity between the Garmin Pilot app and GTN 650/750 touchscreen navigators with no remote unit to install, no wiring and no antennas to worry about. Amazingly, this one tiny card does it all.
Price for the Flight Stream 510 MMC is $1,495, which includes a one-year subscription to Garmin Pilot. READ MORE

Voice Commands, New Gestures Enabled For Garmin GTN

Pilots will finally be able to use pinch-to-zoom gestures on Garmin's GTN series navigators when a new software update becomes available in August. The free update also adds Garmin's Telligence Voice Command and integration with the new Flight Stream 510, which enables wireless database transfers.

The Telligence feature requires installation of a separate push-to-command button and also requires the GMA35/GMA 350 audio panel. ***Telligence*** allows pilots to issue voice commands—more than 300 are available—to complete tasks that normally would require a touchscreen or knob input on the GTN.

Commands include asking the GTN to "tune destination tower," and the tower frequency is then automatically loaded into the standby position. Even if the next hand-off frequency isn't known, the pilot can simply ask "tune nearest center" and the standby field will then be set to the closest center frequency that might be expected to be the next hand-off. Other typical commands include "create waypoint" to create a user waypoint at the current location; "show distance" to pop up a window with the distance based on flight plan information; or "say distance to destination" for a verbal readout of that distance. READ MORE

Airport Courtesy Cars app Enhancements

A mobile app that helps pilots find airport courtesy cars using any device, is now supported by a website, AirportCourtesyCars.com. The app and the website list more than 1,625 cars around the nation.

Android and iPhone users can access the information directly in the app which contains a map showing all the locations where courtesy cars are available. You can narrow it down by state, gradually narrowing it down to the location you need. You then click on the pin and it tells you about the car, and the airport location.

The app even includes phone numbers so you can click on the number and call the FBO directly.

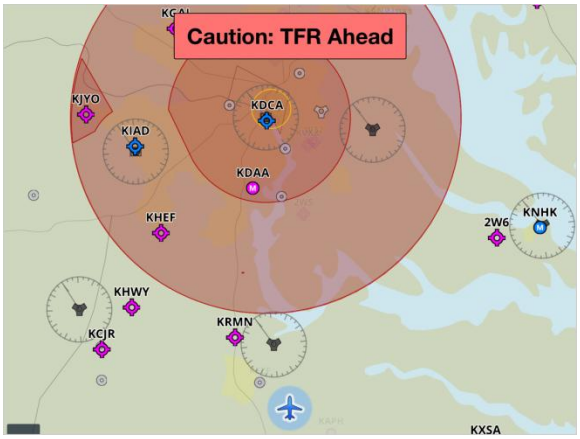
Airport Courtesy Cas developer Glenn Brasch, has no control over the state of the cars. He advises pilots to do a bit of homework before taking off. He's hoping to help them by adding notes to the listings, such as "Not a tended airport, so make sure you call first." READ MORE

ForeFlight 8.0

Intelligent Apps for Pilots™

TFR Alerts

TFR Alerts supplement the graphical display of TFRs with audible warnings and visual messaging overlaid on the moving map that warn you when you are approaching or have entered TFR airspace. **Alerts are shown (and heard) whether you have the TFR map layer on or off.**



Global Data-Driven Aeronautical Maps

Smoothly render and scale when panning and zooming without having to load or refresh. Map elements and text, simply fade in and out without losing clarity or legibility as the zoom level is adjusted. Dynamic 'always-up' labels make it easy to read the map from any orientation. ***ForeFlight Aeronautical Maps will be offered in Basic Plus, Pro Plus, and Business Pro plans.***

Embedded Airport Diagrams

Zoom in to an airport and the airport diagram appears on its own, complete with runway and taxi labels and even FBO locations.

Next Generation BatteryMINDer

Features include:

- Maximizes battery life and performance (uses automatic high-frequency desulfation pulses to dissolve harmful sulfate)
- Maintains up to six batteries at a time (requires BatteryMINDer 210AY "Y"-connector assembly[s])
- Detects battery with weak or dead cell (terminates charge to prevent harmful hydrogen out-gassing)
- Multiple LED Indicators show state-of-charge and condition of battery
- Intrusion Protected (water, dust; certified to International Standard IEC IP65)

READ MORE AT batteryminiders.com

TMF PRODUCT REVIEW

Garmin G5 Electronic Flight Instrument for Certificated Aircraft

It's compact and cost-effective. The G5 serves as a standalone primary source as your Attitude Indicator. No need for a vacuum pump here! As a backup, it also provides airspeed and altitude, offering enhanced situational awareness. G5 features an economical upgrade path in type certificated fixed-wing general aviation aircraft, accomplished via supplemental type certificate (STC) with a comprehensive approved model list (AML). Finally, you don't need to shell out G500/600 money for a 21st Century device.

The screen is a bright 3 ½ inch LCD display. It serves as a secondary source for altitude, airspeed and vertical speed — all in a single instrument. Installation is simple and easy. The G5 integrates with the aircraft's existing pitot/static system and displays attitude, airspeed, altitude, vertical speed, slip/skid, turn rate, ground track, configurable V-speed references, barometric setting and selected altitude, as well as visual alerts upon arriving at the pre-selected altitude. Built-in GPS provides GPS-based track and groundspeed information, and a dedicated rotary knob allows for easy adjustments to altitude bugs and barometric pressure settings.

Installation

Installed in a standard 3-1/8 inch (79.4 mm) instrument hole, G5 measures 3 inches in depth and includes a back-up battery so it easily integrates into a wide range of aircraft. Installation is further simplified as G5 only needs power, ground, pitot/static and GPS inputs so it also integrates with the aircraft's existing systems. For aircraft without a compatible GPS position input, an optional GPS antenna is available. As part of the STC, G5 includes a 4-hour back-up battery, and pilots can easily reference battery status in the upper left-hand corner of the display.

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.

Boris Vasilev (CFI, CFII, MEI, AGI), Phoenix Area. 602-791-9637, boris@atjeuhosting.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. (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.

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

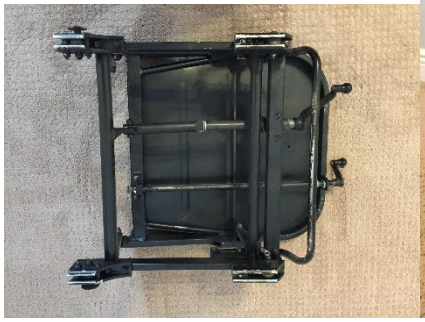
Ted Corsones, Rutland. 813-435-8464, tedc@corsones.com. Total: 7500, Mooney: 4500, Instruction: 2000+. ATP & MCFI for MEL, MES, SEL, SES, Instrument Airplane & Glider. **Master Instructor Emeritus. He serves with the MAPA Safety Foundation as an instructor, treasurer, and chief financial officer.**

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.



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

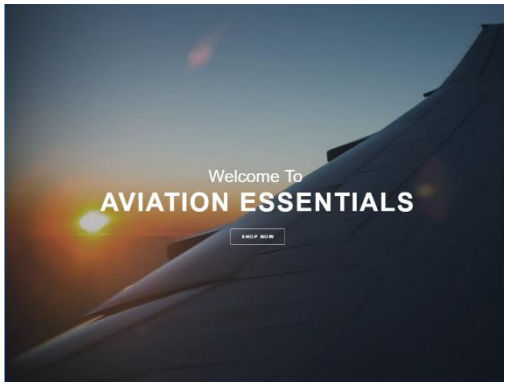
TT 6425, SMOH 780, SPOH 780, 200hp Lycoming IO-360-A1A, Hartzell Prop with "B" hub (no AD), 201-style instrument panel, manual gear and flaps, Century NDS360 HSI, KX-155 w/GS, KI-209, KX170B w/ GS w/ MAC1700 digital upgrade, KR22 MB, KR 86 ADF, Northstar M3Approach GPS w/ Argus 3000 moving map, CP125 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