

The Mooney Flyer

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

January 2016



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MOONEY FLYERS



and more

Features

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[Mooney Tales from South Dakota Part 2](#)

Linda finishes her adventure in South Dakota, enroute to Oshkosh, with tales of the Badlands, Air & Space Museum, and downtown Rapid City

[Suddenly the Door Pops Open](#)

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[The IFR System... Are you Safe?](#)

Jim Price reviews the realities of the IFR system.

[A Project](#)

Can't find the iPad mount you are looking for? Geoff Lee made one.

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From the Editor

Phil Corman



John Belushi made a lot of us laugh until his death in 1982. This picture of Belushi, taken from the movie "1941", made me laugh and also made me think that most Mooney pilots have this look and swagger about us. We must have a lot going for us to fly the fastest and most fuel-efficient production planes in the GA fleet.

With winter upon us, we should be a little humbler and a bit more attentive to our amazing Mooneys. Winter cold can wreak havoc on our Lycomings and Continentals when starting in the winter. In the winter, even here in Central California, the mornings are below freezing. When our oil is chilled down by winter temperatures, and we start our Mooneys, the first 15 to 30 seconds of that start, our engines will grind



metal. The best thing we can do is to pre-heat the engine. I'm lucky enough to have the full Tanis heating option. If I'm planning a flight the following morning, I'll plug the Tanis in and my engine will start like a warm summer day. If you don't have a pre-heating option, which I did not have in my previous M20C, then you can still pre-heat your engine by placing a horse blanket over your cowling, and under it, place a higher wattage light bulb. This requires precaution because if you have a fuel leak, the hot bulb might ignite the fumes and fuel. I placed my light bulb away from the engine to minimize this concern. Even a small heater works wonders. Again, don't do this if you have a fuel leak.

Multi-viscosity oil does wonders for the winter hard starts. I have been using Philips XC 20-50 and my starter turns my big Continental with little effort during the winter and preserves my engine

during the first critical 15-20 seconds. Also, you can turn your prop a few cycles manually, but the benefit falls far short of pre-heating and using multi-viscosity oil.

In extremely cold weather, don't forget to manage your engine and oil temperatures with your cowl flaps. When it comes to engine longevity, abnormally low CHTs are almost as bad as high CHTs. Just be aware of your engine and oil temps. Normally, your oil pressure will be higher than normal until your oil reaches operating temperature. Enjoy the clear CAVU days of winter!

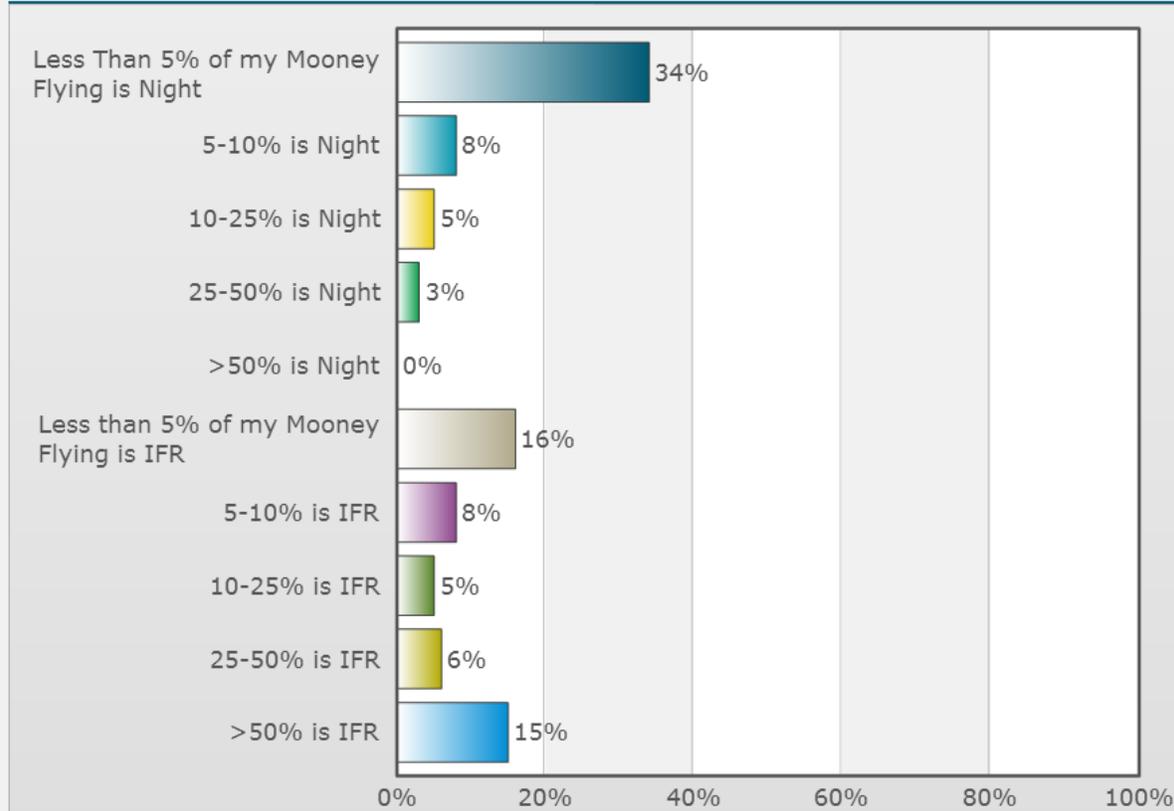
Remember to check for water in both tanks and your sump in the lowest point of your fuel system! Water can freeze in your lines, and it does not take much.

If able, it is useful to keep your battery and your panel avionics warm. Cold temperature affects these negatively.

What Percentage of Your Mooney Flying is:

Poll created by [Phil Corman](#) on 11/12/2015

Poll Results



Last month's poll asked, "What Percentage of your Mooney Flying Is?" We are trying to find out how much of our flying is at NIGHT and how much is IFR.

Next month's poll: "If I couldn't own a Mooney I might choose?"

[CLICK HERE](#) to vote.

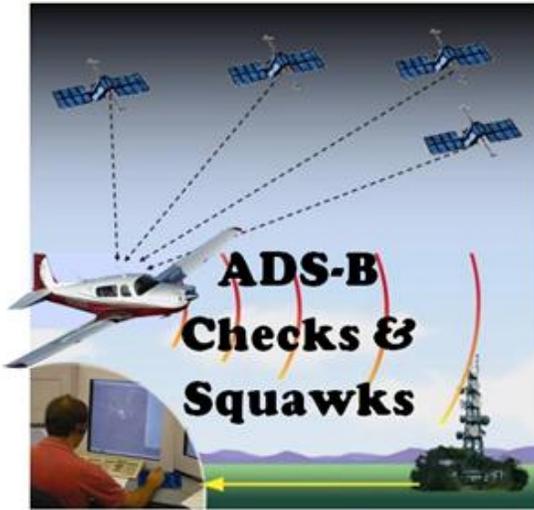


Appraise Your Mooney's Value

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

[M20C](#) [M20E](#) [M20G](#) [M20F](#) [M20J](#)

I tried to catch some fog, but I mist



60% of ADS-B Out Installations are done Incorrectly!

Find out if your ADS-B OUT is working properly, simply by sending the FAA an email to:

9-awa-afs-300-adsb-avionicscheck@faa.gov or just [CLICK HERE](#)

Include your :

- N-number
- ADS-B transmitter make and model
- GPS make/model number(s)

Don't be shocked if you fail.

Just take it back to the shop until it passes.

(For a satisfactory report, Co-Editor Jim Price had to have his installation "tweaked" three times!)



ADS-B, TIS-B, or FIS-B



If you have experienced problems receiving ADS-B Weather or Traffic in a particular area, or have any other ADS-B problems, [CLICK HERE](#)

For more information, visit

<https://www.faa.gov/nextgen/programs/adsb/>



RE: FAA on ANR Headsets: I use one of the higher end noise-cancelling headsets in my C model and if I don't hear the stall warning horn when the wheels touch, it ain't the headset's fault...I also hear the gear disagree just fine on the few occasions I make it go off. Headset manufacturer's wish their products could block those tones.

I also think the ad for the Cirrus fly-in gave me one the best laughs I've had for a while. Thanks for the humor.

Bill B

RE: FAA on ANR Headsets: You asked for input on the ANR headset aural alert muting phenomenon. My background is with the airlines. When I bought my M20J about a year and a half ago, I also got a set of Lightspeed Zulu Twos. The altitude alert tone was frequently missed, and I noticed the gear warning horn was barely audible.

A local avionics shop fixed this shortcoming for me by wiring the alert tones into the intercom. Now I get them all loud and clear.

Lee F

Ok, it's a quiet day here at the office on Christmas Eve. So, of course, I'm reading the December issue of TMF and on page 22 is the old advertisement for the "Mooney MU-2". What the heck is that? I search the web and find an article on AvWeb that recounts the MU-2 history including its involvement with Mooney. An interesting bit of history, for a Mooney-phile, is paraphrased here:

The Mooney MU-2 Story

The pressurized twin-engine cabin-class Mitsubishi MU-2 is a business turboprop that was produced between 1966 and 1986, during the formative years of business aviation. This is the period we now see as the golden age of the turboprop.

Development

The MU-2 story begins in 1959, when Japan's Mitsubishi Heavy Industries (MHI), best known for the legendary A6M Zero fighter in WWII, began to consider a design for a twin engine utility aircraft built around a new generation of small turboprop engines. The target was the US market, which at that time, was the only significant venue for private aircraft. By 1963, Mitsubishi was flight testing the MU-2A in Japan and moving toward certification with the Japan Civil Aviation Bureau. They introduced the MU-2 as a static exhibit at the New York World's Fair in the spring of 1964.

Assembly by Mooney

In 1965, Mitsubishi signed an agreement with Mooney Aircraft of Kerrville, Texas, to have Mooney assemble and sell the MU-2 in the United States. Mitsubishi would fabricate the airplane at its factory in Nagoya, Japan, and ship completed wings and fuselages to a new facility that Mooney was in the process of building in San Angelo, Texas. Mooney would assemble the aircraft, including installation of engines- propellers, avionics, systems and interiors. Then, Mooney would flight test them and paint them to customer specs prior to delivery. In late 1966 the first MU-2Bs were delivered to customers.

It took a while for Mooney to set up the assembly line in San Angelo to accommodate full production, but by 1968, the line was geared to turn out four aircraft per month. Mooney's distributor network was selling the MU-2B at close to that rate.

Notwithstanding the MU-2B's success, Mooney was having problems with its own business, and in late 1969 the company went bankrupt. Terminating its agreement with Mooney in early 1970, Mitsubishi established

Mitsubishi Aircraft International (MAI) to perform the functions Mooney had been assigned. Initially based in San Angelo, MAI would also handle support for the growing fleet of MU-2s. Instead of selling airplanes through Mooney’s distributor organization, MAI would sell the MU-2 directly through its own sales organization.

In some respects, Mooney’s failure came at a fairly advantageous time for Mitsubishi, although it could have hardly known it back then. The market for business aircraft was entering a recession in 1969 that would last nearly three years. The market slowdown allowed Mitsubishi to make the transition from Mooney to MHI at a time of reduced demand, when it was less likely to cost market share and lost sales opportunities.

Vincent D

RE: Power by Mr. Lee – I look forward to Mr. Lee’s articles each month. When I saw the title, “Power”, I wondered what insight me might afford us? Power is one of the most primary controls on takeoff and approach, and apparently one of the most mis-used in the descent and approach. The understanding of power is fundamental and I appreciated his insights into its proper usage. I continue to learn with each issue of this wonderful Mooney Flyer!

George S



ADS-B in America

The FAA has published [AC 20-165B](#), Airworthiness Approval of Automatic Dependent Surveillance-Broadcast Out Systems, the guidance material for those seeking approval for installation of ADS-B Out systems. According to the Aircraft Electronics Association, “The revision to AC 20-165 contains a number of significant changes.” These include the elimination of “the criteria that ADS-B Out transmitters and position sources be automatically treated as a major alteration.”

The association pointed out that ADS-B Out upgrades “still require the initial approvals, but within specific limitation allows ADS-B Out installations to be treated as ‘normal’ avionics. As such, the evaluation of major/minor is normal. Second, the AC highlights the follow-on installation criteria of a previously approved system. Third, the AC contains the criterion for reuse of flight test data for follow-on installations of approved systems.”



ADS-B In Europe

The ADS-B out requirement takes effect in Europe on June 8, 2016, for new aircraft and June 7, 2020, for retrofit. The date for retrofits is about six months later than the U.S. ADS-B out mandate. [CLICK HERE](#) for more details.

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Calculator v.2

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to email Mark at
Delta Aviation



The IFR System – Are you Safe?

by Jim Price

DEPARTURE via SID

If you have filed IFR and your departure clearance involves a Standard Instrument Departure (SID), you'll be assured of obstacle clearance as long as you follow it. But what if your departure airport doesn't have a SID? In this case, to avoid the rocks, it's up to you to fly the proper Obstacle Clearance Departure (ODP).

NOTES on ODPs

- Do not assume that "cleared as filed" or "cleared direct to" a fix means that you will be clear of terrain and/or obstacles without using the ODP.
- Regulations don't require the use of an ODP, and the *Controller Handbook* indicates that it's up to the pilot.
- You don't need a clearance to fly an ODP, but at a non-towered airport, ATC assumes that you'll use one.
- At unfamiliar airports, one should follow the ODP in IMC or at night.

Jeppesen publishes their ODPs at the bottom of the runway diagram page. *AeroNav*, (formerly *NACO*), puts them in Section C of the approach charts in the "Takeoff Minimums and Obstacle Departure Procedures" section — The Triangle T pages.

15

TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, AND

DIVERSE VECTOR AREA (RADAR VECTORS)

<p>FLAGSTAFF, AZ FLAGSTAFF PULLIAM (FLG) TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES</p>	<p>GLOBE, AZ SAN CARLOS APACHE (P13)</p>
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When you select an ODP, make sure that you can meet its required climb gradient. If there aren't any published ODPs, I hope you have a Sectional Chart. It will show terrain that the IFR chart won't. After careful planning with the Sectional, you could circle over the airport until you're darn sure that you're clear of the surrounding terrain.

WHEN ARE YOU CLEAR . . .

Pilots are responsible for their own terrain clearance until ATC issues a **radar vector**, or clears the aircraft off of the ODP. In addition, when you're safely on a published route or procedure, you are assured of obstacle clearance.

Check your terrain clearance. If the initial heading looks like it's going to send you toward a hill, ask for an amended heading, or inform the controller that you'll be flying the ODP.

“RADAR CONTACT”.

When a controller says, “Radar Contact”, that doesn't mean that he or she is assuming responsibility for keeping you away from obstacles. Once again, it's only when the controller issues **a radar vector**, that you can be assured that ATC has assumed responsibility for rock avoidance.

ATC WILL KEEP ME OUT OF THE CLOUDS, RIGHT?

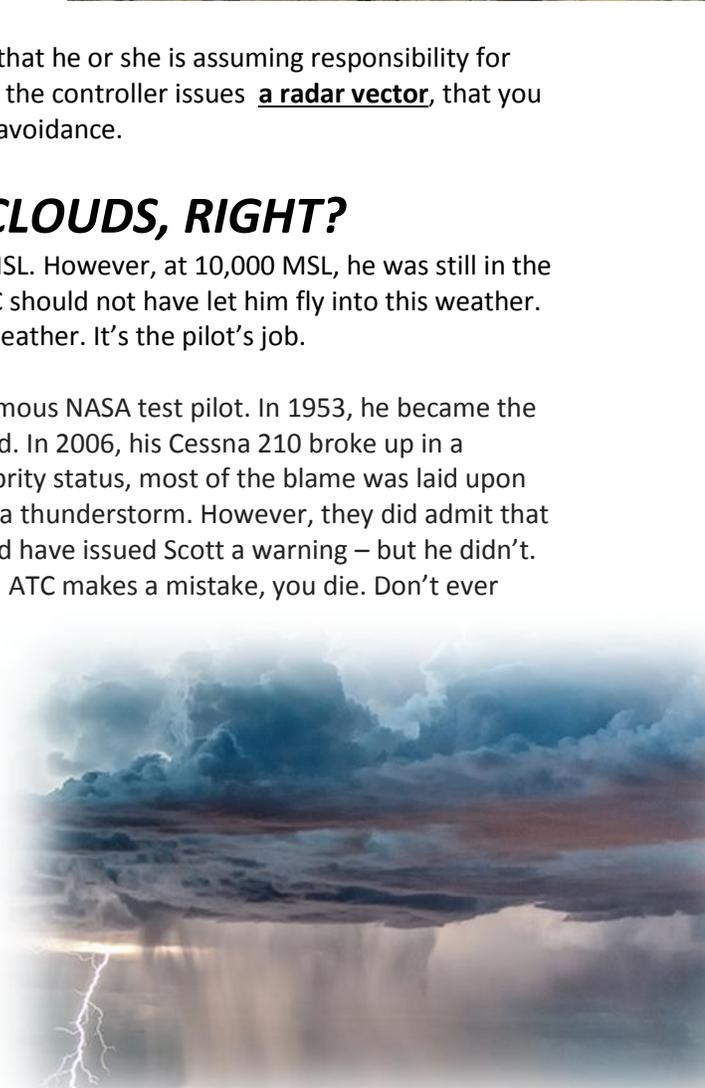
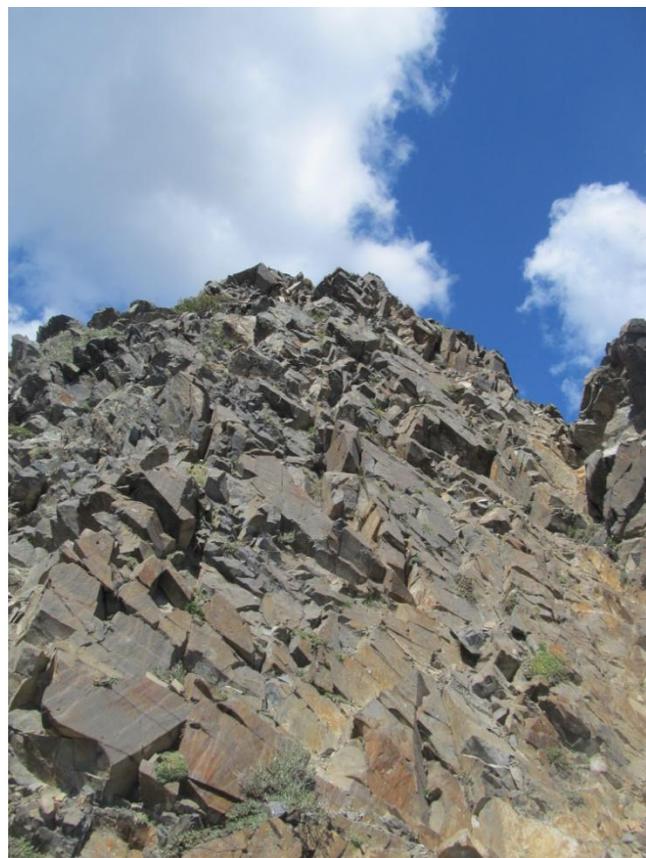
One pilot flew into clouds with reported tops of 6,000 feet MSL. However, at 10,000 MSL, he was still in the clouds, and they were bumpy. The pilot complained that ATC should not have let him fly into this weather. Actually, it's not the controller's job to keep you out of the weather. It's the pilot's job.



Scott Crossfield was a naval officer and famous NASA test pilot. In 1953, he became the first pilot to fly at twice the speed of sound. In 2006, his Cessna 210 broke up in a thunderstorm. Despite his legendary celebrity status, most of the blame was laid upon Scott. They cited pilot error for flying into a thunderstorm. However, they did admit that the controller had plenty of time and could have issued Scott a warning – but he didn't. When you make a mistake, you die. When ATC makes a mistake, you die. Don't ever assume that ATC is your babysitter, with a sworn oath to protect you. Actually, warning you about the weather is pretty far down his or her list of things to do.

TRAFFIC SEPARATION

When my wife and I are flying VFR and using Flight Following, she will often wonder why ATC didn't tell us about traffic that flies near us. Actually, traffic separation is ATC's primary job, but that's just for the IFR traffic. Advising VFR aircraft about traffic in the area falls into the



category of “additional services”. If you’re VFR, the controller can advise you concerning traffic, if his or her workload permits.

The VFR cloud clearance requirements are designed to serve and protect IFR aircraft. Because VFR aircraft are supposed to remain 2,000 feet clear of the clouds, the IFR pilot will have a fighting chance when breaking out of a cloud. If the IFR pilot has a ground speed of 150 knots, that should give him 10 seconds to spot the VFR aircraft dodging the clouds.

IFR SEPARATION

Santa Monica (SMO) is less than 3 nm from Los Angeles International (LAX). When the SMO weather is IFR, SMO IFR traffic must wait for what seems like an eternity, until ATC can find a launch window. That’s because they are trying to keep the SMO IFR traffic at least 5 nm from the LAX IFR traffic.

It sounds like LAX traffic has priority, but it’s really because the airline dispatchers filed their flight plans hours in advance and SMO clearances are almost “pop ups” and it’s first filed, first served.

If you’re able to take off VFR, no ATC separation is required. But, be aware that if you can’t maintain VFR, you shouldn’t expect an immediate Pop Up clearance from ATC. You may run out of clear skies before ATC is able to get you a clearance.

WHEN THE MEA CAN GET IN THE WAY

Sometimes a Minimum Enroute Altitude (MEA) will require that you fly higher than you desire. For example, the MEA might be above the freezing level, or above your aircraft’s ability to safely perform. If you can fly VFR at a lower altitude, that might be safer than encountering icing or running out of horsepower.

DESCENT FOR LANDING

If you’re on an IFR clearance, you can’t descend without permission from ATC. They might hold you higher for traffic separation and then give you a slam dunk approach. If you know that you can maintain VFR, it might be more comfortable if you cancel IFR.

VFR FLIGHT FOLLOWING

If you choose to go VFR, always get flight following. This service doesn’t guarantee obstruction, weather, or traffic separation, but the controllers will call out all of the these – most of the time, when they can.

They actually prefer talking with you, workload permitting, because they know who you are and that helps when they “call you out” to other traffic. In addition, if you have a question or an emergency, you’re already in radio contact.





Surviving After the Crash

In past issues, we have written about the most “effective” ways to land your Mooney off-airport. Landing a complex or high performance Mooney is different than landing a more docile C-172. This article will focus on things you, as a PIC can do, before and after an off-airport event, that can significantly improve everyone’s chances of survival.

When flying over mountains, you can increase your chances significantly of being found quickly if you fly within gliding distance of roads, even if they are not ideal landing zones.

So, we would be remiss if we did not cover the essential things to carry in your cargo bay. These include, but are not limited to: tent-like materials, ponchos, medical kit (medication, knives, big bandages, disinfectants, etc.), water, some food, rope/heavy twine, lighters, gun, shovel, hatchet, warm clothes. If flying over remote territory, such as deserts or mountains, stay with your Mooney. Statistics show the probability of rescue is significantly higher. If flying over water and you’re not within gliding distance of land, wear life jackets. They will do you no good if they are in the cargo bay. If you’re far from land, renting an inflatable raft is low cost survival insurance. For easy access, stow it in the back seat if you don’t have passengers seated there. If you’re landing in water, do NOT forget to unlatch the door before touchdown. Many people survive the water landing, but eventually drown. For temperature control on land, remember to dig. Dig into the snow, or if you’re in the desert, dig into the sand. Both of these strategies will protect you from the heat and/or the cold.

The first steps that you can take occur long before you leave the house for your off-airport event. Here is some equipment that is readily available and could assist you in your desire to survive.

Regardless of whether your event takes place in the desert, the mountains or in the water, consider a Personal Locator Beacon (PLB). [CLICK HERE](#) for a sample list

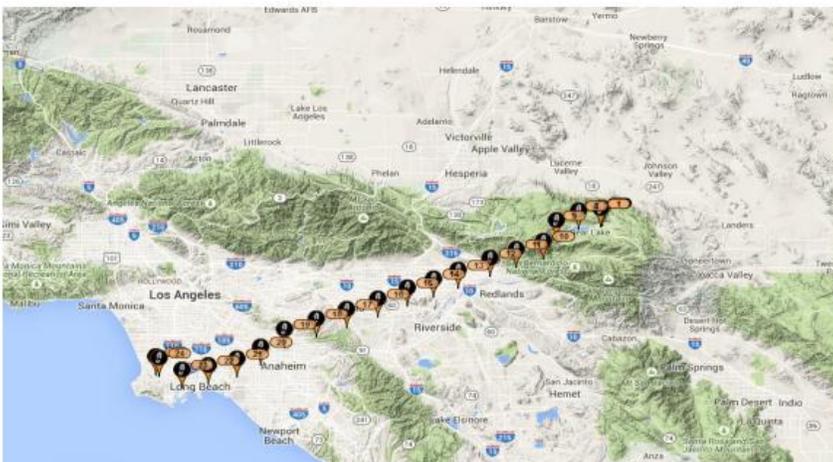
of PLBs. These devices have GPS and Satellite transmitters built-in. The Spot Gen 3 can let others track your location in real-time via Google Maps.

In an emergency, you can transmit an SOS with your location to the GEOS International Emergency Response Coordination Center. PLBs cost as little as \$150. Getting found quickly can make increase survival chances if you or one of your passengers is injured. If you have a PLB, and you know the direction to civilization, then you can walk out. Just remember to ensure that your PLB is transmitting your progress. Leave obvious breadcrumbs with your direction and path.



SPOT 3 Satellite Messenger www.findmespot.com

- Sends Pre-set Messages by text or email to up to 10 addresses. Messages contain Lat/Long which can be viewed on remote computer.
- Integrates with Lockheed Martin Flight Service
- Uses 4 AAA Energizer Lithium Batteries, Energizer Lithium Rechargeable batteries, or line power from 5 USB connection—150 hr life fully charged
- Low power 0.4 watt output—Uses GlobalStar Network
- Latest update—SPOT Unit is **FREE** if a yearly subscription is purchased. Basic yearly plans start at \$99; enhanced plan is \$149/yr.
- \$149 plan allows friends and family to follow movements via internet connection



Another popular device is the DeLorme InReach SE pictured here. [CLICK HERE](#) for more information. Features include: Text message send/receive, Pre-set message sending, location pings at 10 minute intervals to the Earthmate SmartPhone App, Automatic flight following locating services. All this for a monthly subscription of about \$80. It uses the Iridium Satellite Network and has about 1.6 watts of transmit power.



Another great piece of equipment is a panel-mounted 406ELT. [CLICK HERE](#) for a list of some of these units. Your old 121.5Mhz ELT is becoming less and less useful. The FAA doesn't even monitor that frequency much, if any. Even if they did, the 121.5



MHz ELT does not transmit a location, which decreases your odds of being found quickly. If nobody picks up the tone on 121.5, before too long your batteries will die, whereas the 406 transmits your location immediately upon your event. A 406ELT can specify your location to within 100m and Search & Rescue will know your location within 10 minutes. These generally cost \$500 and up and are good devices to have if you want to increase the speed of your rescue team's arrival.

Here are some other ideas for your survival enhancement. It goes without saying, that if you are flying long periods over water, deserts, or mountains, you should consider filing a Flight Plan. Doing so has become much less painful with Apps like ForeFlight. However, the time to rescue will be much longer as Search & Rescue won't even begin to worry about you until after you were supposed to land. Further, their ability to find you is only enabled by the detail of

your flight plan and how close you were to the course when you landed off-airport. I'm kind of lax nowadays on filing a flight plan, but I like to use Flight Following. My theory is, that if something goes wrong, I am already talking to ATC, they know where I am, and they can dispatch Search & Rescue post haste. With Flight Following, I don't have to remember to close my flight plan. In some regards, having ADS-B on board is a survival instrument. It's continually sending my N number, altitude, location, etc. So, if I go down, there is a strong data trail with my last known flight data.

Remember your survival kit. It must include water, food, shelter, fire, and signaling capability (usually a handheld mirror or flare). However, you should be careful when carrying flammable items in your Mooney. When it comes to staying warm, sheltered, and comfortable, space blankets pack a lot of protection for both the buck and weight. The reflective metallic surface can help searchers find you, too. I carry one for each passenger. You should consider including a small, lightweight, emergency tent. To do double duty, look for orange, foam sheets to use as ground pads to sleep on. When laid out, they are highly visible from the air. Rounding out the shelter supplies are some thin rope, duct tape, a knife, a multipurpose tool (e.g., Leatherman), wire saw and/or axe, and a full-brim hat.

On every flight, hope for the best, but plan for the worst. When planning a long flight segment over the water, the desert, or mountains, bring a kit with all the essentials so you can survive until you're rescued or you can walk out.



Stuff You Need To Know About Your Magnetos

by Clifton Orcutt,
Aircraft Magneto Service

Photos by Martin Bydalek

Are 500 hour inspections mandatory? If not, should I still have them done?

Five hundred hour inspections are not mandatory, but highly recommended since mechanical parts experience wear. For pressurized magnetos, Continental Motors (Bendix Magnetos) and Champion Aerospace (Slick Magnetos) have 500 hour maintenance requirements—and other maintenance requirements at more frequent intervals.

Can I use Slick or Bendix magnetos on my Mooney?

The engine type certificate data sheet specifies which magnetos are approved for use on your engine model. Many Lycoming engines were not certified with Bendix magnetos. Slick STC'd many of their magnetos for Continental and Lycoming engines. In many cases, Bendix magnetos may be installed on Lycoming engines with 337 paperwork.



Why do magnetos fail?

Magnetos fail for different reasons based on type. Slick has coil failure rates that are much higher than Bendix. However, Bendix has condenser failure rates that are higher than Slick. Both have infrequent distributor gear failures. Slick distributor gear electrodes can become loose in 4 cylinder models. Bendix distributor gear teeth can shear as a result of the use of gear holding tools that the Continental Bulletin 658 addresses. These tools are still being sold by parts vendors. Never use them!



What are the differences between magnetos, and whose is best?

The design philosophies of Bendix and Slick magnetos were different. The Bendix mag has been in continuous production since 1947 and was intended to be field serviced and overhauled. The obsolete Slick 600 series, were also designed to be field serviced and overhauled. The follow-on 4000 series was *not* designed to be serviced, but exchanged at 850 hours of service. No parts or service manuals were ever released. The 4200, 4300, 6200, 6300, Slicks were designed for limited field service, but parts cost and mandatory part replacement limit field overhaul. The best magneto is the one that performs adequately for the engine and airframe's intended use. Slick magnetos are in wide use on low power and low altitude operation training aircraft. Bendix mags are preferred for high power and high altitude use. There is considerable application overlap.

[CLICK HERE](#) if you think you have magneto issues. Most magneto problems are often spark plug problems.



ADDICTS: BEFORE AND AFTER



ALCOHOL



WEED



DRUGS



FLYING

What can I do to increase the lifespan of my magnetos?

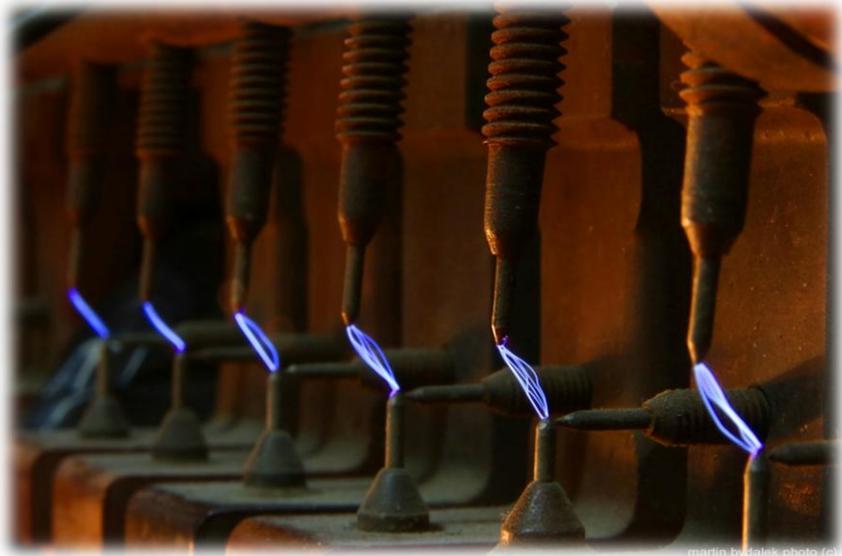
Fly your Mooney frequently! Following the manufacturers recommended maintenance intervals will, in all cases, extend the service life of these electromechanical devices.

What should I do if a magneto fails during a flight?

Fly the airplane, shut down the bad magneto and land as soon as possible.

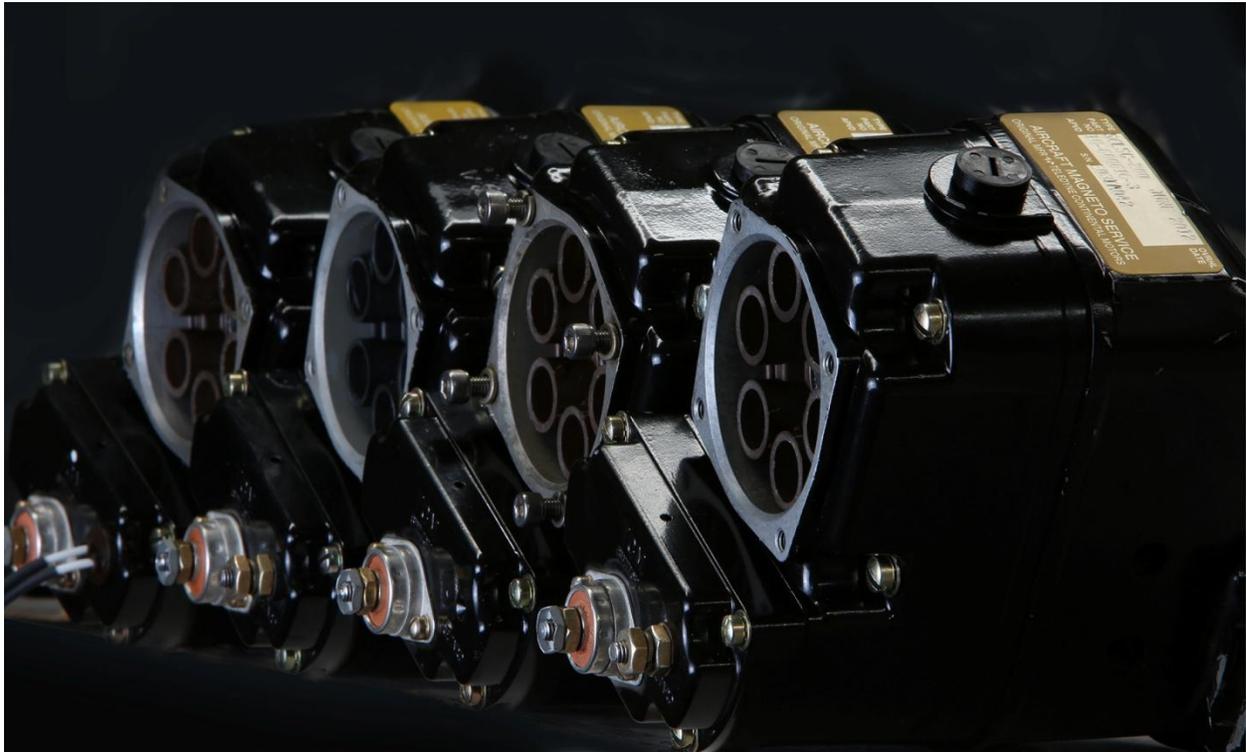
Are the single housing/dual magnetos in the M201 reliable? What if one of the two mags fails during flight?

According to Continental, which owns Bendix, the Dual magneto statistically has the same reliability and low failure rate as the single magneto. However, distributor gear failures in the Dual magneto can result in a complete loss of ignition. As a rule of thumb, we recommend following the pilot operating handbook for shutting down the offending magneto and then land as soon as possible. According to Robinson Helicopter, rotor operators should land immediately and NOT check the magnetos in the air.



Magnetos seem antiquated? Are the new, electronic ignition systems better?

Magnetos have proven their worth for more than 100 years. They're reliable, inexpensive to operate, and easily field serviced by the maintenance community. Continental Motors spent a lot of money developing solid state ignitions and concluded these systems were of no advantage below 15,000 feet. Above 15,000 feet, they can offer limited fuel savings through a computer controlled timing advance. In our opinion, claimed power increases are the result of running much wider spark plug gaps. Mooney pilots might recall when Slick introduced their LASAR (Limited Authority Spark Advance Regulator) ignition system a number of years ago. Its initial cost, special timing tools, limited field support and small fuel savings hampered its acceptance by the market.



What are “Shower of Sparks” systems, and who offers them? Do I need one? If so, can it be added to my current system?

"Shower of Sparks" is a Bendix trademark for a starting vibrator system that utilizes magnetos with two sets of contacts (points): One is full advance set and the other is retard set. These systems use a simple vibrator coil (Bendix) or solid state vibrator (Slick's Slickstart) to provide a pulsed direct current to the magneto's transformer (step up coil.) It's timed by the retard set of contacts to provide a high tension spark at cranking RPMs, slightly after piston top-dead-center. This spark occurs for approximately 20 degrees crankshaft rotation. The system is simple and reliable, providing the best starting system for all engines, particularly fuel injected models. Starting vibrator systems provide smooth reliable starts and, in our experience, are the best of the magneto ignition systems.

Impulse coupled magnetos come with mechanical design features that require maintenance and associated part replacement costs. Impulse couplings can and do fail, and are capable of significant engine damage when they do. Impulse coupling inspection is very important and should NOT be overlooked.

The Slickstart can be added to improve starting of impulse coupled Slick Magnetos. Bendix Magnetos are shower of sparks specific with their electromechanical starting vibrators. If you have the ability to install a "shower of sparks" system or "slickstart" to the appropriate Slick magneto, we highly recommend you do so. The cost is reasonable and the benefits large.

What should I look for during my preflight, magneto test?

Lycoming has service bulletins on the magneto preflight test. [Click Here](#) to read it. Your Pilot Operating Handbook has the magneto drop RPM limits and mag to mag acceptable drop. Inflight, lean of peak magneto checks can, with proper instrumentation, such as a multiprobe EGT, be a good indicator of the complete ignition system condition. Lean mixtures are more difficult to fire than rich mixtures. Mike Busch writes about this at <https://www.savvyanalysis.com/articles/in-flight-diagnostics> Busch also offers some good insights at <http://blog.savvymx.com/2010/03/mag-check.html>



JIM PRICE ATP,
CFI-I,
MEI



Suddenly, Our Door Popped Open in Flight

In 2005, my wife and I traveled to Los Lunas, New Mexico, just south of Albuquerque, and fell in love with our first Mooney, a 1974 M20C. To satisfy the insurance company and for my own peace of mind, I flew a couple of hours with a CFI. I made multiple landings and was declared marginally safe. I was excited to learn more and that night I read and re-read the Handbook and tried to understand the GNS 430 manual. The next day we took off from Mid Valley Air Park (E98), and after we had climbed a few thousand feet, I contacted Albuquerque Center for flight following. Suddenly, the cabin door popped open. The wind noise was so loud that I could hardly understand my wife and communication with the controller was impossible. We knew that further flight would be terribly difficult. I saw the Alexander (E80) airport to my left, near the town of Belen, and we landed there. After landing, we were able to close the door and learned a great lesson. We found that the door latch has three positions:

- “Open”,
- “Nearly closed, but it’ll open in flight”, and
- “There’s the pop; there’s no doubt in my mind that it’s closed”

A cabin door popping open just after takeoff can be a very distracting event and has been the cause of several accidents. That’s because sometimes, when the door opens in flight, the pilot has a natural desire to get it closed as quickly as possible. That’s exactly what you’re not supposed to do.

When anything out of the ordinary happens, remember to “Fly the Airplane” and maintain aircraft control. It is almost impossible to close a door after it has popped open in flight. If you try to close it, your activity will be a great distraction that could result in tragedy.

A popped Mooney door will only open a few inches because there is a lot of airflow that will prevent it from opening too far. Performance may suffer slightly, but generally, aircraft control is not a problem.

If this happens to you, forget about getting the door closed. Maintain aircraft control and avoid high-speeds. Find an airport and land as soon as possible, using normal procedures. After you are safely stopped on the ground, close the door. *Fly Safe, Jim*



The Energizer bunny was arrested and charged with battery



Geoff Lee.

CFI

A Project

We probably do not need another iPad mount, but most of the advertised iPad mounts are, to me, esthetically unattractive and none of them can accommodate an iPad with a protective cover installed. I decided to fabricate an iPad Mini mount of my own design

The mount had to be designed so that its placement in the cockpit did not restrict any instrument view or vision when looking forward or through the side windows. To be easily removable, this dictated that there be no screws, so the ubiquitous "suction cup" would attach the device to the aircraft. Suction cups require that the mounting surface be smooth as glass and non-porous – the windows. Also, the iPad's position should not involve major head movements to view it; particularly downward head movements. I have found that even the yoke mounting devices call for more head down posture than I am comfortable with.

This mount took a couple of hours to make in my garage.

Because I wanted the iPad cover to remain attached, this ruled out any clamping arrangement.

The protective cover issue was resolved by using the cover "lid", in conjunction with a mini bungee cord, to secure the iPad to the mounting plate.

I tested my mount with pilots of various heights. In all cases, they had normal forward visibility, and the mount did not obstruct the panel instruments. The side view was also uninhibited. To view the iPad, pilots needed only a level, leftward glance, with little or no head movement.

Installing the iPad onto the mount is very easy. Just slide the back of the cover under the bungee and then slip the iPad behind the tabs (which I made), at the base of the plate.





The lady shown here, is a diminutive 5' 1". Even without her usual "booster seat", she could easily see forward, and the iPad did not get in the way of her view through the left window.



If you want to remove the mounting plate, it can be easily removed from the suction device. However, the mounting plate is transparent, and this feature minimizes the need for frequent removal.

A word regarding the suction device: *Do not totally trust them.* I have found that the cold temperature of the window combined with a cold plastic vacuum cup, can occasionally present some small problems keeping it on the window. Warming the vacuum cup with the hand, softens the material and increases suction life. I suspect that a more expensive suction device with better/softer "rubber/plastic" vacuum cup material may resolve the issue. It's also important to keep both the window and vacuum cup clean. I installed a short safety cord on the mount and attached it to the never used, microphone bracket. In case the vacuum cup fails, this safety cord helps prevent the iPad from falling to the floorboards. After five flights, so far, so good.

Use of the iPad in an aircraft has taken on some of the undesirable aspects of addictive cell phone use when operating a road vehicle. It demands the operator's attention to the device to the detriment of safe vehicle operation.

The iPad is obviously a marvelous map full of great information. However, using it does require the fingers and the eyes. In times past, pilots would not be found busily unfolding and reviewing their sectional map, with their head down, during taxi, initial climb out, or within five miles of a the destination airport at low altitude.

Yet today, we let ourselves be distracted by the iPad with increasing frequency; generally in VFR conditions. It is an undesirable practice and dangerous. Eyeballs need to be directed outside the cockpit when in close proximity to the airport.

It is impossible to point a finger at an iPad icon without looking straight at the icon. Try to restrict the majority of iPad finger poking when your aircraft is either stationary on the earth, or in level flight at cruise altitude.

It would be prudent to create personal safety rules regarding the use of this great navigational tool. Please *consider not using it* when the aircraft is in motion on the ground and during the airborne periods when your eyes need to be primarily outside the cockpit.

For the sake of safety, be totally familiar with **every aspect** of the aviation app on your iPad before becoming airborne. **Do not try to master it in the air.**



Cliff Biggs

ATP, 767,757,737,727, A320, LRJet,
CE500, MU-2, Wright Bros Award,
A&P 46 Yrs, B707, B727, B720,
B747, DC-10, DC9, DC-8, CE500

Houston, I “think” we have a Problem

Contained in a recent emailing I received from www.PilotworkShops.com was an IFR training scenario titled “A Different Kind of Approach”. The results of a survey at the end of the scenario, floored me. Quite

frankly, I couldn’t believe what I was reading.

The basic scenario was that you are on an IFR flight, en route to your son’s college graduation that day. You have an iPad with Stratus AHRS. You are in the clear on top of an overcast at 8,000’ and your destination weather is 600-2; it has an ILS approach. Behind you is an airport with 1000/3 (but with an MVA of 1300’). Behind that is your departure airport with clear skies. You have plenty of fuel for all these airports. You’re 20 minutes from your destination and you have just received a clearance to descend and turn as you prepare to intercept the ILS. At this moment, your vacuum pump fails!

What now?

The article gave you four options:

1. Say nothing and plan a partial panel ILS with the help of your iPad.
2. Declare an emergency and fly a partial panel approach
3. Return to the field just behind you and request a no gyro descent to VFR conditions.
4. Return VFR to your departure airport and miss your son’s graduation.

Only 2% chose what was behind door #1, that’s good! However, surprisingly, 50% chose either door #1, #2 or #3.

YIKES! What’s wrong with this picture?

- 2% (21) chose door #1
- 27% (264) chose door #2
- 21% (107) chose door #3
- 50% (483) chose door #4

Is the current level of thought process among a significant portion of the piloting fraternity so flawed, that half would even contemplate the first 3 choices?

Here we have an airplane in day VFR conditions, on an IFR flight plan that is severely compromised by a vacuum failure. The choice now is do we continue in VFR weather and terminate the flight with the greatest margin of safety, or do we (for the sake of “mission completion” or false confidence in electronic gadgets), compromise our position of safety by going from VFR conditions into full IMC on a partial panel, aided by our “BELOVED” iPad?

Do we now feel that it’s reasonable to jeopardize our lives and those with us, by depending on the reliability of the electronic gadget Gods? Do the electronic gadget Gods give us so much false confidence that we ignore basic flying and the rules that govern us? Are we flying an airplane or are we playing a computer game?

To attempt this, I can think of at least 4 broken regulations just off the top of my head. Setting aside for a moment the legality issues with any of the first 3 options, what also concerns me is the apparent absolute reliance on unapproved cockpit electronic devices in critical, life threatening situations where options are available that do not necessitate the use of emergency means to get on the ground safely. Have we become so blase' with the proliferation of electronic "gadgets" that we have lost common sense?

I fully realize that if one travels down the aisles at the local big box store and looks at the sports equipment aisle and then the electronic goodies aisle one will find the younger population massed with the electronic goodies. iPads, iPhones, Droids, PS4s, notebooks, tablets, laptops, talking wrist watches by the untold millions are sold each year worldwide. It really is a new generation, but is it appropriate and safe when applied our aviation world?

I recently viewed a picture of a small airplane cockpit that had five (FIVE) GPS screens in view of the pilot! Two were hard mounted in the panel and three were on various "removable mounts". How much actual flying and looking out the window would that pilot be doing after playing with all the toys and gadgets he had in front of him? Sure, an iPad with Stratus ADS-B and AHRS can be useful in flight. Do you think that five GPS screens can distract a pilot"?

The greatest concern is the apparent thought process among some of our flying brethren. To say you have the iPad for a "backup", just in case, is fine and dandy. There you are in full IMC and you lose your vacuum and now you drop down to your iPad (which you have practiced with recently) and use it to help you GET OUT OF the current situation. That's one thing. To be fully VFR and then purposefully decide to go into IMC and PUT YOURSELF INTO an obviously illegal and unsafe position, to put yourself and your passengers in jeopardy by trying to do a partial panel approach (even with the iPad and autopilot), is folly to say the least.

And that was just the thought process shown by half of the respondents in this survey!

The proliferation and use of electronic gadgets, including ones designed especially for aviation applications (but not certified), grows exponentially every year. One only has to look at how many people are engaged in texting in restaurants or while walking down the street, to see the impact they have on our lives. The FAA has been playing catch up, from way behind, for years and probably will not pull even for some time. The industry is moving that fast. Combine that with the onerous regulations for certification (Part 23 rewrite notwithstanding), and we will always be behind the commercial curve with our aviation applications. That aside, we need to be vigilant that we don't "poison the well", so to speak, and let our enthusiasm for gadgets cloud our thinking in the cockpit.

As always, I welcome your comments. Ya'll be careful out there.

* The Pilot Workshop (www.PilotworkShops.com) is an interesting site and quite informative. I have no connection with it, except to say I enjoy the writings.



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A gold seal with a serrated edge. The outer ring contains the text "SATISFACTION GUARANTEED". In the center, a green starburst says "NEW!". Below that, the number "7" is in large green font, followed by "Year" in green. At the bottom, a gold ribbon banner contains the word "WARRANTY" in black capital letters.



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St. Petersburg, Florida

CIRCLE NO. 19 ON READER SERVICE PAGE



Send your questions for Tom to TheMooneyFlyer@gmail.com

Question 1: Can you tell me the differences between short/medium/long body M20s when it comes to Annuals? What are the primary differences in the Annual? Which model has the simplest Annual?

The number of man hours required for an M20 Annual Inspection, are dictated by the factory. The hours were established at the time Mooney built it. They are:

- A-F: 24 hrs.
- J: 26 hrs.
- K/L: 28 hrs
- M/R/S/TN: 32 hrs.

As you can see, as the planes grew longer, the man hours went up. The checklists are in each service manual. Some of the things that affect inspection man hours are:

- Electric gear
- Turbochargers
- Oxygen systems
- Extra gear doors
- Sculptured wing tips
- Larger fuel tanks
- TKS system

Most shops follow the man hour factory guidelines, but may add man hours for planes that have been modified, such as a Rocket conversion.

The M20C with manual gear, is the simplest model to inspect. This is also why it is the most popular model.

Non-Mooney shops don't need to follow the Mooney checklist, but they can use the very basic Part 91 FAA version. They don't need to comply with Service Bulletins or Service Instructions, but they must comply with the ADs.



Rapid City, SD

Badlands, Air & Space, and more

The next installment, on our adventure to Oshkosh, is in the Badlands and Rapid City, South Dakota. On prior trips we have flown over the Badlands, but this was the first time for us to actually drive into and walk around

this famous [National Park](#). I really never thought about what makes up the Badlands area.



I had heard that many western movies were made there, but that was all I knew about the area. When you first look at the Badlands, it seems very inhospitable. However, it has supported humans for more than 11,000 years. The earliest people to come there were ancient mammoth hunters. Much later, they were followed by nomadic tribes whose lives were centered on hunting Bison. By the mid 18th century, these tribes were replaced by Sioux, or Lakota, who, from the Spanish, had adopted the use of the horse. The Lakota flourished during the next 100 years, but then the European trappers, miners, and cattle ranchers poured into this region. After 40 years of struggles, culminating in the [Wounded Knee Massacre](#) in 1890, the Lakota were confined to reservations and Cattle replaced the Bison. The Bison had played such a vital role in the Lakota lives, that when the Bison were gone so went the Lakota. Only their paintings, drawings, and artistic crafts remain.

Apart from the human story, the geographic story is also compelling. 75 million years ago, the Earth's climate was warmer and a shallow sea covered the Great Plains region. In today's Badlands, the bottom of that sea appears as grayish black, sedimentary rock. In that rock are found a vast array of the fossils of extinct animals. Driving through the Badlands Park, at every turn, we encountered mounds of various colors. The area was once described as "peaks and valleys of delicately banded colors; colors that shift in the sunshine having a thousand tints." When we got out of the car to walk along the pathways, we found flowers and grasses that somehow manage to survive this waterless desert. If you are ever in the area of the



Badlands, I highly recommend taking the loop that winds around and into the National Park. This National Park happens to be located on a huge Lakota reservation called Pine Ridge. It is not developed with shops, R.V. parks, or camping areas. This is wonderful because you can get the sense of what the early humans and settlers saw. After a day in the park, we decided to head back to Spearfish by way of Rapid City. Going out of the park, we drove on highway 44 which is really a back way into Rapid City. This route takes you through Buffalo Gap National Grassland and the Pine Ridge Indian Reservation.

As we drove past Rapid City on our way to the Badlands Park, we noticed the [South Dakota Air and Space Museum](#), just east of the city. Of course, being Mooney people, we couldn't just drive past without a visit. The museum is located at Ellsworth AFB and is easy to find. We got a treat as we drove towards the museum, when two B2 stealth bombers arrived. Wow, they are big and very impressive. This museum is free and it's smaller than others we have visited. But, it's worth the stop. They have a static display of approximately 30 airplanes outside. Inside, there are displays that range from early aviation to the space age.



As we were getting a little tired and hungry, we decided to go into Rapid City and look for a good restaurant. The city is fairly large and has long been considered one of the gateways to the West. It is rich in cowboy and Native American heritage. There are several blocks of shops, restaurants and bars which are always fun to visit. As we drove around the city looking for a place to eat, we noticed that there were several metal statues of various presidents, which we planned to visit after lunch. We finally found a restaurant called [Talley Silver Spoon](#) at 530 6th street. We were not disappointed in the food or the service. This place had a little diner feel to it, and we knew it was good because everyone seemed to recommend it. It was late in the afternoon and the place was crowded, so you know it's good. After we fortified ourselves, we decided to walk around the downtown area and enjoy the shopping experience. This is when we got an up close look at the presidential statues.

These statues are life size and it is quite fun to have your photo taken with them. Phil is shown standing next to one of his favorite presidents, Thomas Jefferson. There is a walking tour you can

do which takes you to all the statues, but we were short on time and wanted to look at a couple of shops that carried Native American art. These shops were worth visiting as the arts and crafts looked authentic and the prices reflected the handmade quality of the products.

As we were looking for fun things to do in the area of Rapid City, I found this cute wooden Chapel located on our way back to Spearfish. The Chapel in the Hills is located at 3788 Lane, Rapid City. It is out of the way a little bit and hidden away in a residential area, but signs help you find your way there. As we drove up, we were happily surprised at the look of the Chapel. I felt as though we had entered middle earth and Hobbits were about to come out and greet us. The Chapel is an exact replica of the [Borgund Stavkirke](#) that was built about 1150 near Laerdal, Norway. The Chapel is made completely from wood. The early church builders had a special way of preparing the timbers for the staves used in the church supports. There are numerous carvings of snakes and dragons around the front door. To the early pagans, these represented good and evil. The Chapel is open so you can wander through and enjoy the wonderful work done by master woodworkers. Don't forget to walk along the prayer path, with statues of saints dotting the pathway. This path is located at the rear of the Chapel and is tucked among the trees. Because it was a rainy day, we had the feeling we would soon encounter Bilbo or Frodo. As it was getting late, and we still had to drive back to our hotel near Spearfish, we had to hit the road. Instead of taking I-90, we drove the backroads, routes 44 and 385, on our way back to Lead and Deadwood,. These routes meandered through the Black Hills; rich with water, forests and clean air. Again, it goes without saying, that from the Badlands, to a walk with the presidents, to a walk in surreal Middle Earth, we would have done none of those things, without our Mooney.





The Mooney Flyer Fly-Ins

May 14: Tour the largest Binocular Telescope. This would be a joint fly in with the Arizona Breakfast Club. The airport is located in southeast Arizona ([KSAD](#)). This is a first class event. The town arranges transportation and room accommodations with a cowboy breakfast @ the University of Arizona base camp @ 8 am. The University has buses reserved with lunch provided all for \$45.00 per person. The Breakfast Club has hosted this event several times and knows the logistics of early & late arrivals.



January 9: Leesburg (LEE) Lunch will be at the EAA hanger, after lunch we will go to our house and run the garden railroad, transportation provided by locals both ways.

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Avionics Repair and Installation Services now available on site thru J&R Electronics

I wondered why the bird was getting bigger... then it hit me



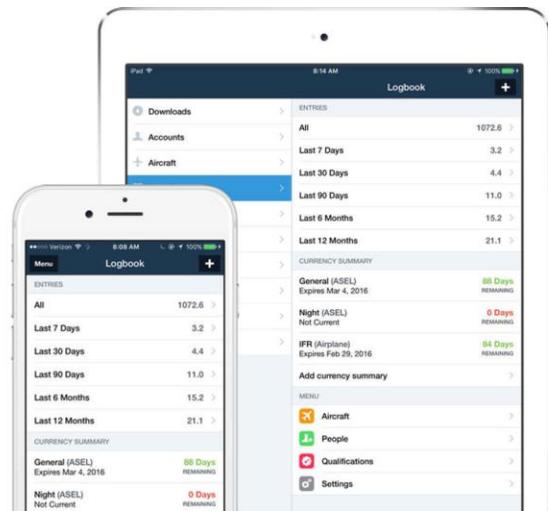
ForeFlight Adds Integrated Logbook Feature

In a move that could put some pilot logbook app makers out of business, ForeFlight has added its own integration into its popular flight planning app, allowing users to automatically log flights, track hours, review currency and receive electronic flight instructor endorsements.

The new feature includes a web-based import tool that lets you pull in data to the iOS app with a couple of taps, plus smart quick-fill buttons and fast automatic entry designed to make keeping your logbook up to date as automated a process as possible.

Logbook data is securely stored in the ForeFlight Cloud with an automatic sync feature that keeps all your data updated across all the Apple devices linked to your account.

A Basic Plus subscription to ForeFlight with the logbook functionality is **\$99 a year, or \$199 a year for a Pro Plus subscription.**



Avidyne's STC to activate WiFi and Bluetooth

Avidyne reports it has received FAA STC approval to activate the integrated WiFi and Bluetooth functionality on the IFD440 and IFD540 FMS/GPS/NAV/COM systems.

The MK10 Bluetooth keyboard allows pilots to wirelessly control their panel-mounted IFD440 or IFD540 systems. This approval also gives third-party tablet app developers access to both Bluetooth and Wifi data streams



TME PRODUCT REVIEW



PIREP on Aspen MFDs

I took my Mooney to Air-Craftsman / Mile High Avionics to have two Aspen Multi-function Displays (MFDs) added to the already installed Primary Flight Display (PFD).

When the avionics guys removed the four instruments (Airspeed, Altimeter, Turn and Slip, VVI), and the associated light wiring, that removed a short in one of those instruments and now my **Panel Lights** work normally. No, I don't fly around with inop stuff. For over a year, other avionics experts have been unable to find the lighting problem.

I kept my already installed MX20, but it's now redundant. That's because they removed the GLD 69, which provided [XM Weather](#) for the MX20. Garmin Data Links don't play with Aspen displays, so in place of the GDL 69, Air-Craftsman installed an Aspen EWR50 (Evolution **W**eather **R**eceiver). This receiver or data link, now provides XM weather so it can be displayed on the Aspen MFDs.

Previously, Jeppesen provided the MX20's navigation data for \$210 per year. They also provided the MX20's Approach and Airport Diagram Charts for the Western third of the US for \$345/year.

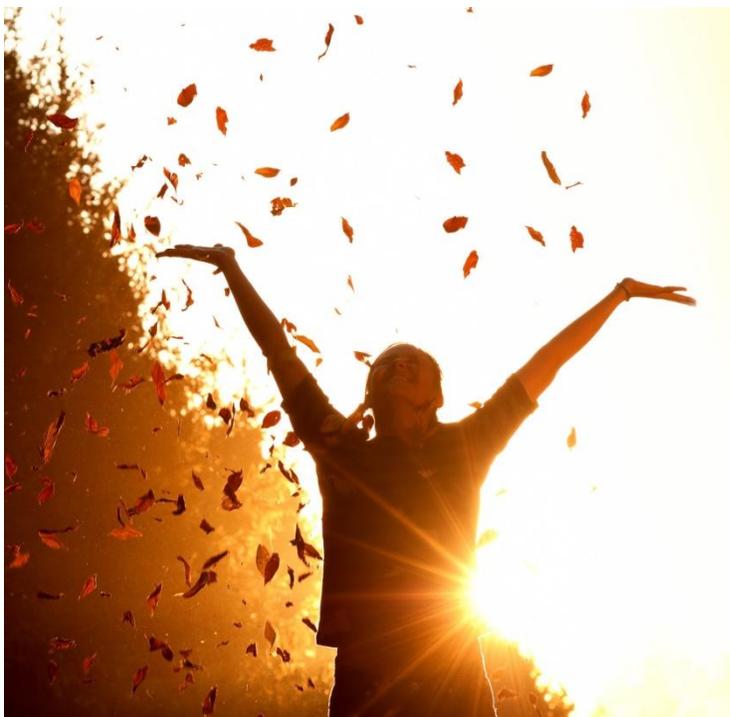
With the Aspen Evolution MFDs, Seattle Avionics provides FAA-certified geo-referenced IFR and VFR approach plates, airport diagrams, Mins, Arrival Procedures, and Departure Procedures for the entire US for \$299/year.

What's the difference? Seattle Avionics uses AeroNav, (formerly NACO) charts.

I'll miss Jeppesen, because their airport diagrams cover more airports. For instance, Jeppesen supplies airport diagrams for small, uncontrolled airports like Spanish Fork, UT and Coolidge, AZ; AeroNav doesn't.

This is amazing, because with all the money I'm saving with annual subscriptions with Seattle Avionics vs. Jeppesen, the two new new Aspen MFDs will pay for themselves **in just 78 years**.

When the avionics guys removed the four instruments



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. 9,000+. 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

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



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



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. Member MAPA Safety Foundation. Owned Mooneys 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 questions on the Washington, DC SFRA and ICAO Flight Plans.



Speed is life, altitude is life insurance.

No one has ever collided with the sky.



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 Perry Oklahoma (F22). Call 405-338-8992.

For Sale

King KX155 Navcom and KI 209 Glideslope Receiver. Removed from my Mooney 201 due to an upgrade to my panel. Guaranteed to work perfectly. Asking \$2,995 for both units. Contact Henry Punt at henrypunt@gmail.com, 562-881 9018



For Sale -- Complete M20C O-360 A1D 180 HP Mooney exhaust system. Removed several years ago to install a new Power Flow system. Was working fine at the time. Always stored indoors. May need to be inspected to obtain a yellow tag. Make offer. Shipping extra. Located at Cobb County McCollum Field (KRYY). Call Ron at 678-848-9899

For Sale – 1978 Mooney M20J 201. Aspen with extended warranty, Avidyne traffic, storm scope, very good paint (8), interior (7). King 200 autopilot coupled to the Garmin GNS 430 and Aspen. Factory engine with 850 hours. \$ 88,000 - mbmaksymdc10@aol.com

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, longer body Mooney. Asking \$600 (When new, these covers cost \$1,149), Contact Jason Herritz at Chandler Aviation, Inc. [480-732-9118](tel:480-732-9118)
parts@chandleraviation.com

1965 Mooney M20E Super21, J-Bar



SMOH 1351
Since New Prop 207,

Other maint. Tank seal, New Exhaust, EGT, New Starter, Throttle Cable.

GX50 IFR

Great traveling machine!

\$30k (vref price)

F70 space #59

Ready for Annual now.

Poor paint, interior is nice.

Jim H 951 303 0704,

Cell 951 704 5857

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!

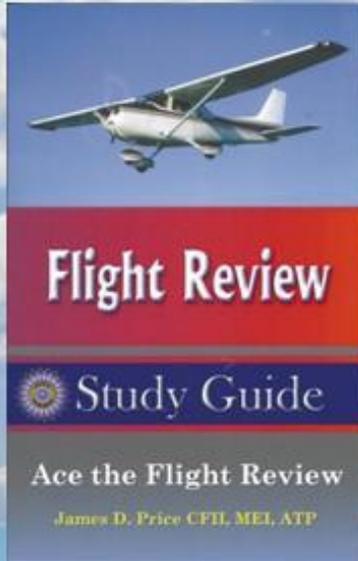
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Planes for Sale
List Your Plane

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

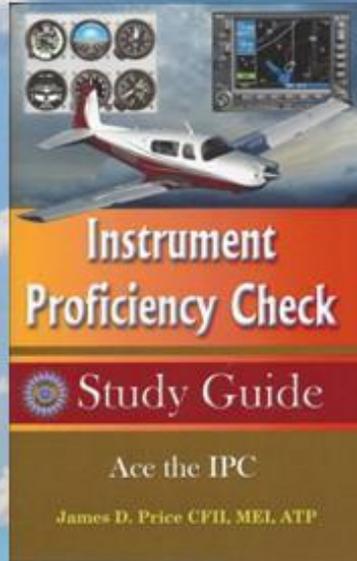


MODS	PARTS	SERVICES
	Parts Order Form	
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	Avionics	
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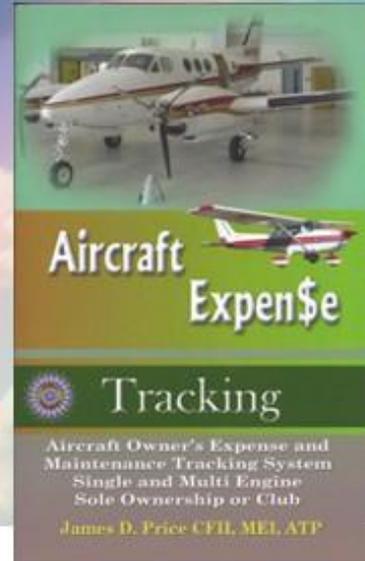
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