# The Mooney Flyer

The Official Online Magazine for the Mooney Community

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December 2015

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Phil Corman
Jim Price

**Contributing Writers**
Bruce Jaeger
Bob Kromer
Tom Rouch
Paul Loewen
Geoff Lee
Linda Corman
Cliff Biggs
Mike Elliott

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# In Every Issue



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# From the Editor

**Phil Corman**


For some reason I am feeling thankful and grateful to be a Mooney owner and pilot and have great friends who share all of that with me. Sometimes we take things for granted. It's human nature. I love my wife, my family, my friends, and my Mooney. I also love that I can fly. I was starting to take all that for granted, but life has a way of reminding us of our good fortune.

This year in particular, I am so grateful that Mooney is back. It's not that parts are available again, (that's a good thing), but rather that there is a future, maybe a bright one, for future Mooney owners. Mooney is fortunate to have Dr. Chen, Tom Bowen, Ron Blum, Luis Acosta, Stacey Ellis, and countless others that I still have yet to meet.

Closer to home, I'm grateful for my Mooney friends. I am blessed with some wonderful friends. Friends are like pilots. You don't know if you are a good pilot until you are tested. That's when you find out. It's the same with friends. I'm lucky to have friends who stand by me when things are difficult. We can never take friends for granted. I was in a meeting with Rod Machado at the California Pilots annual meeting in Sacramento, where he said, "A pilot certificate is simply a license to learn". Good friends help you be a better pilot. Listen to them at fly-ins and learn from them. As Buddha once said, "You can only learn while you are listening. When you are speaking, you only repeat what you know." I am grateful for my close Mooney friends.

I'm also grateful for my Mooney M20S "Eagle". I think we all believe that our Mooneys are the best in the world, but mine truly is. I have also owned a 1965 C with the Johnson Bar and hydraulic flaps. They were both the best in class. I overheard Tom Rouch of Top Gun Aviation telling a potential buyer of my C that it was the sweetest C he had ever seen. My Eagle is also. She has taken Linda and I to places we never would have gone without her. We've met old friends and made new friends at every stop. We've landed in the deserts of the Mojave and Sonora; the Sierra Nevada Mountains of California, the Rocky Mountains of Colorado, and the Sierra Madre of Mexico; to Oshkosh, the San Juan Islands of Friday Harbor and Orcas; Glacier Park, Zion, Bryce Canyon, Grand Canyon, USS Sedona, Monument Valley, and many more. From Bryce Canyon at 7600' MSL to Death Valley at -200' MSL. Our Mooney is truly a time machine and we think nothing of visiting friends 500 miles away, just for the day. Yet, we take nothing for granted.

Writing this magazine is another gift. Jim Price and I get so much satisfaction in trying to inform, inspire and entertain you with every edition. The Letters to the Editor keep our souls well fed. So

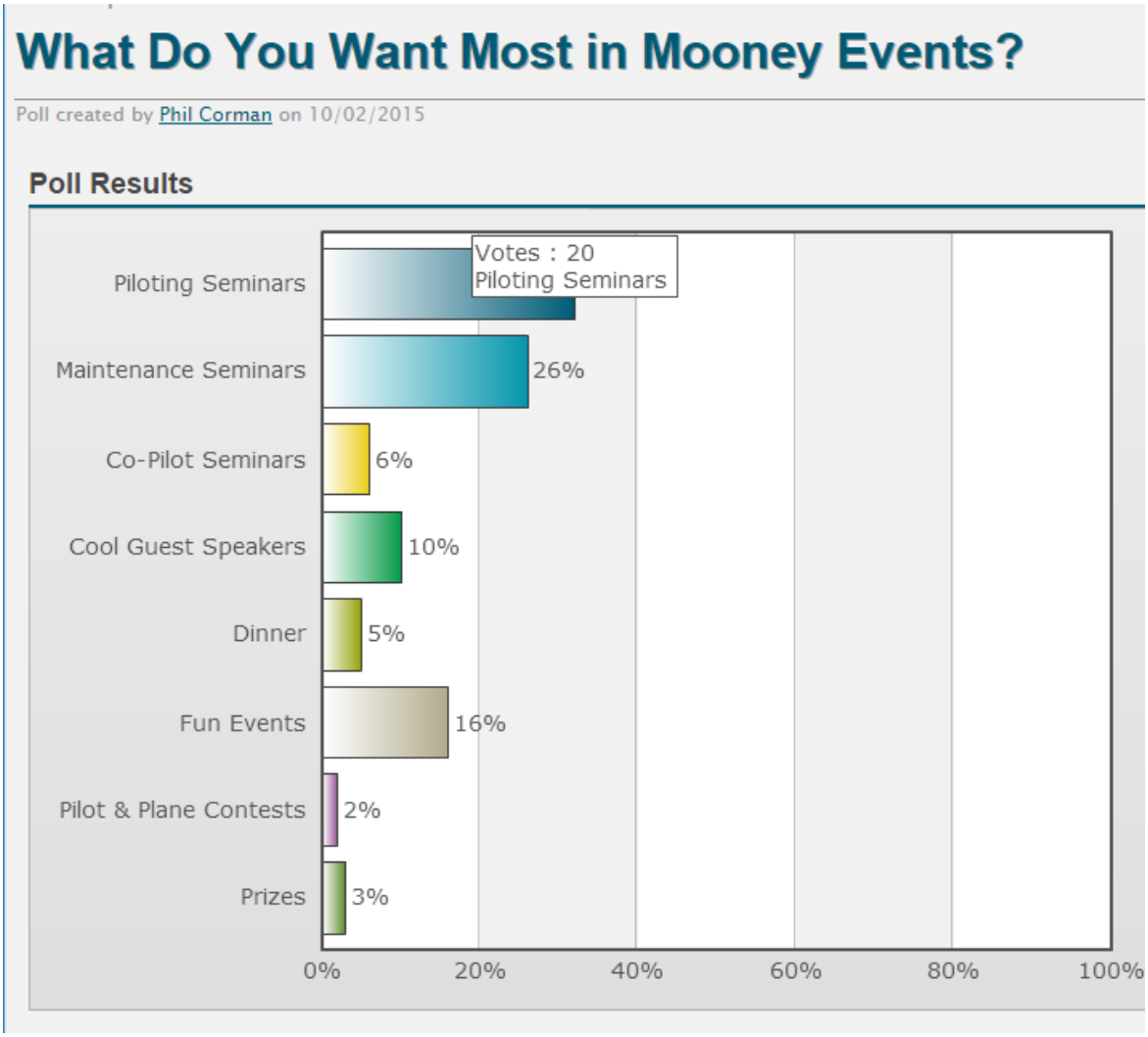
many of our readers have decided to contribute their expertise by writing articles. Top notch folks like Paul Loewen, Tom Rouch, Geoff Lee, Cliff Biggs, Mike Elliott, Bruce Jaegar, Paul Beck, my amazing wife Linda and so many others from CFIs to Mooney A&Ps, to just about anyone with a story to tell. We are grateful to them all. It's the Mooney Community that makes this worthwhile.

I'm also grateful to the Mooney Service Centers who have kept my Mooneys in top shape. Where would I be without LASAR and Top Gun Aviation. Paul & Shery and Tom & Mark have kept my Mooneys safe and fast. Then there's people like Dan Riesland, parts manager at LASAR, who is often the only one in the universe that has the part I need … and then delivers it over night. Where do these amazing people come from? I'm sure we all have stories of the great people who keep our Mooneys in shape.

I simply don't know what I would do if I ever lost my Mooney. Not only because it's amazing to fly, or that it's faster than everything else in the sky, or more economical, or sweeter looking. They even look fast sitting on the ramp. No, it's because my Mooney takes me to places I've never been, or to the places where my friends and family are; places that just aren't that accessible by car or airline. Every new airport, (and YES, we keep track of every airport we have landed at), is a place to see new things and make new friends. My Mooney is not simply aluminum and silicon, it's part of the fabric of our lives and the same is probably the case for many of you as well. There are no other airplanes that deliver on this promise with so much style and appeal.

Merry Christmas to you all,

Phil




Last month's poll asked, **"What Do You Want Most in Mooney Events?"** Half of our respondents use Aeroshell or Philips.

**Next month's poll:** "What Percentages of your Mooney flying are Night and what percentage is IFR?"

**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


**RE: Using the Cigarette Lighter** – I read Mike's article and have a simple solution. The bottom line is, he needs a Ferrite Bead that you clip onto the iPad charging cord. They are very cheap and work great, they come in two packs and I put one on each end of my charging cord, no more background noise. Attached is a picture of the Ferrite. I got mine at Radio Shack
**Lloyd B**


1/10/14 Ferrite bead - Wikipedia, the free encyclopedia

**Ferrite bead**

From Wikipedia, the free encyclopedia

A **ferrite bead** is a passive electric component that suppresses high frequency noise in electronic circuits. It is a specific type of electronic choke. Ferrite beads employ the dissipation of high frequency currents in a ferrite ceramic to build high frequency noise suppression devices. Ferrite beads may also be called blocks, cores, rings, EMI filters, or chokes.[1]

A ferrite bead at the end of a USB cable

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**Overview**

Just wanted you and the other readers to know that The Mooney Flyer is always getting better. It keeps changing, unlike other publications, and makes me want to read every page. I like it, no….. I love it, if that's possible.

BTW, I am planning some new avionics installations, including the GDL-88 and Flight Stream. Thanks for the review in the Nov. Mooney Flyer. I got 3 quotes, and am happy I did. The first was nearly $11,000. The second and third were about the same, coming in at about $7,000. I'm sure the readers of The Mooney Flyer know that multiple quotes is the way to go. What a dramatic difference I found with these 3 shops.
**Greg J**

Thanks for a great magazine... I am always looking forward.. The last issue had an interesting story about formation with a P51….. Well, I had the pleasure to fly the Hunter Trainer and the pilot wanted a formation flight with my Mooney afterwards. Who could say no to such an adventure....so, we met at 5'000 feet and he easily joined up...I had everything forward and as you can see he did not even had to use flaps....so after a low pass he gunned it and accelerated away...The noise and thunder/vibration was felt in the Mooney. It was just great. Thought I share this experience with you

Kind regards from Liechtenstein
Mit den besten Grüssen
**Heinz A**

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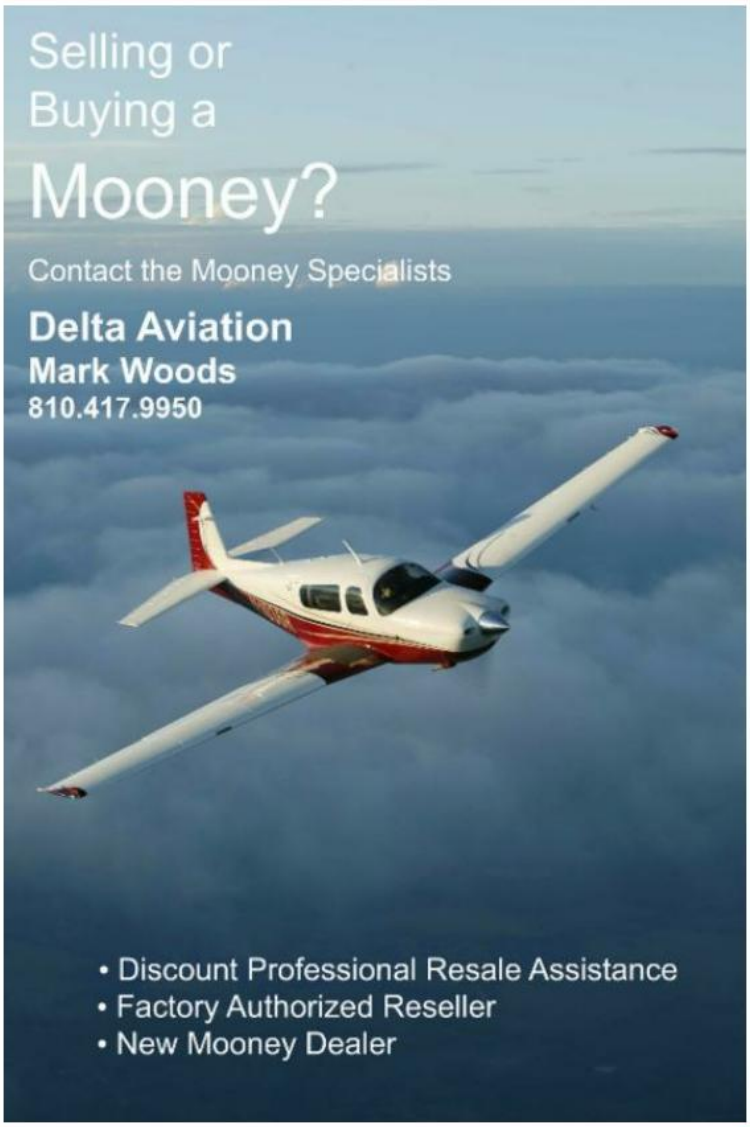


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Mark Woods | Delta Aviation | 810.417.9950 | mark@deltaaviation.com | deltaaviation.com

December 2015

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**CLICK HERE**
to email Mark at Delta Aviation

# Mooney Accidents



## What can we Learn?

by Jim Price

For the past six years, our Mooney Pilot had admittedly become complacent after flying his M20J for six years. What does that mean? Was he not flying very much? Was he cutting corners when it came to safety? Was he satisfied with any landing, just as long as he could use the airplane again? Was he not interested in perfection? I don't know, but what I do know is that just having a small hint of complacency in your attitude is a dangerous way to be engaged in aviation.

On January 27, 2013, our complacent pilot prepared to enter the pattern at Warsaw, IN (KASW). He entered a left downwind and nonchalantly allowed a wind component from his right side to push him too close to his landing runway. Now he's too tight on downwind, and as he turns base, the wind exacerbates his pattern, and he overshoots the turn to final.

Now, he has problems with runway alignment, but nevertheless, he continues on. He could have gone around and flown a better pattern, but he didn't.

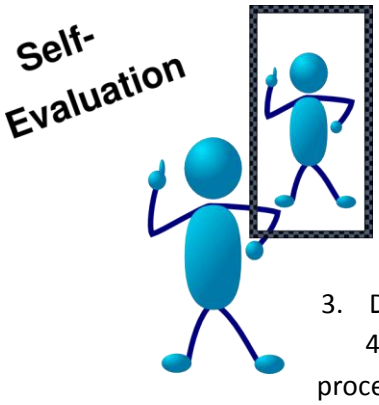
When he hit the ground, his airplane was not aligned with the runway. He hit so hard that he bounced, still not aligned with the runway. The airplane began to porpoise and bounced several more times as it departed the left side of the runway.

Okay, maybe now is a good time to go around. He tried, but he was never able to regain control of the airplane. The right wingtip impacted an airport fuel storage facility about 350 feet to the left of the runway and the airplane came to rest upright about 50 feet from the initial impact.

The pilot reported that his complacent attitude left him unprepared for the violent bouncing caused by the hard landing. He stated that he should have had better training to prepare him for the stress, confusion, and surprise that resulted. The pilot also reported no mechanical malfunction or failure that would have precluded normal operation.

The NTSB found that the probable cause of the accident was the pilot's improper recovery from a bounced landing and failure to maintain control of the airplane during a go-around maneuver. Contributing to the accident were the pilot's complacency flying the airplane and his lack of training on bounced landing recovery procedures.

Before we pass judgement on our mishap pilot, let's evaluate ourselves with a little test.




### On a scale of 1 to 10, with 1 being terrible and 10 being outstanding, how do you judge or see yourself?

1. Are you a regular attendee at FAA and AOPA safety seminars? 1 – 10
2. Do you fly enough to feel comfortable in the cockpit? If it's less than once a month, give yourself 1. Once a month, give yourself 3. Twice a month, give yourself 5. Five or more times a month, give yourself a high five and 10 points.
3. Do you find yourself forgetting a few things when you fly? 1 – 10
4. How are you when it comes to reading the POH and brushing up on emergency procedures? 1 – 10

5. Do you budget for some FAA Wings flights with an instructor; someone who will challenge you with scenario based events at least four times a year? 1 – 10
6. When things "break" on your Mooney, do you have them fixed right away? 1 – 10
7. If you find yourself in an unstable position at 500 feet AGL, (still trying to line up with the runway), do you go-around early, so you can, in a controlled manner, place yourself in a better position for a better landing? 1 – 10
8. When the judges at the end of the runway are giving you 4s and 5s for your landings, do you grab a Mooney CFI and work on the inconsistencies? 1 – 10
9. Do you change your fuel cap o-rings every year? 1 – 10
10. Before you fly, do you call Lockheed Martin for a telephone briefing? 1 – 10
11. On final, at 500 feet AGL, are you precisely at the prescribed final approach airspeed? 1 – 10

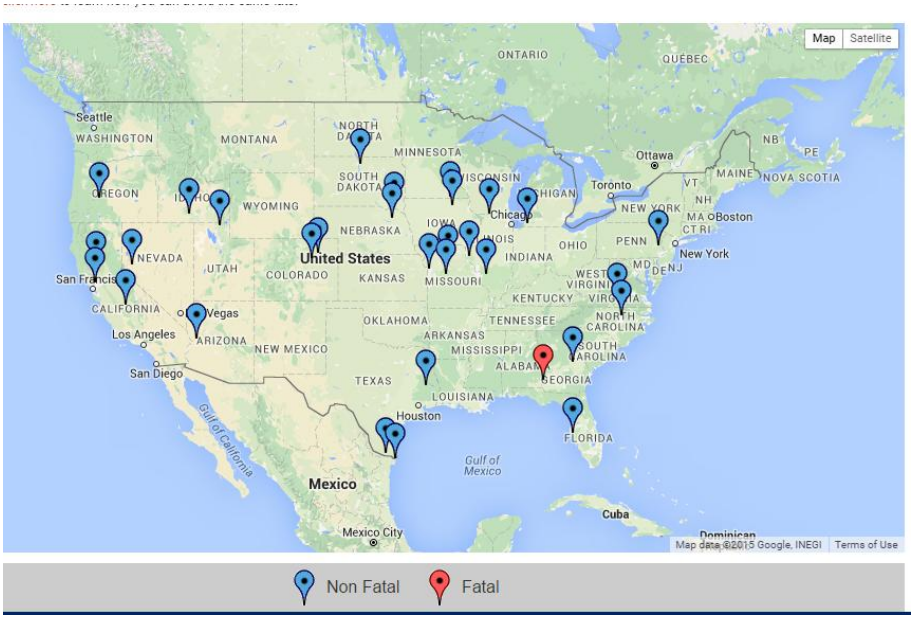

How did you do? Did you score at least a 70? If not, for your own sake, please do something about it.

*Fly Safe,*
*Jim*


**January27, 2013, Warsaw, IN (KASW)**


## *Fuel Management*

It seems to me that fuel management should be one of the easiest things for a Mooney pilot to do correctly. But apparently, according to the NTSB, that is not true. Why? How is it that so many pilots perform forced landings, sometimes off airport, due to fuel exhaustion? We don't have the answer, but will attempt to give our readers more information to deal with the issue of fuel management in this article.




The first and most obvious item regarding fuel management is to ensure that the line guy puts the "blue fuel" in your tank. This is easier when you are present, but if you call in a fuel order, it is doubly important that you drain some fuel and check it with your eyes and your nose. Jet A is NOT Blue and it does not smell like 100LL. Just ask Robert Duvall, who prefers "the smell of Jet A in the morning". The good news is that Jet A is heavier than 100LL, weighing between 6.46-7 lbs per gallon whereas 100LL weighs 6.02lbs per gallon. Therefore, Jet A will sink to the bottom of your tank and reveal itself while sumping. Most times, if you miss this, your engine will draw 100LL long enough for you to get "wheels up", then stop. This is a bad time for such an occurrence.


Next, you should confirm the amount of fuel in your tanks. The best confirmation of fuel in your tanks is to check it with your eyes and a calibrated measuring stick. We all know that fuel gauges are just plain unreliable and most disappointing for such an important function.

*Total Fuel Management also means knowing if your Mooney tanks have leaks. Depending on how much they are leaking, it could turn out to be a significant consideration for a 5-6 hour leg.*

Next, check the quality of your 100LL. Is there water in the tank? Water weighs 8.34 lbs per gallon, so it sinks below everything, even the Jet A. You should also look for particulate material in your tank. It could be dirt or sealant, or any type of foreign object debris. None of that is good. How many of you also sump the gascolator? In my Eagle, there is a ring to pull in the cabin. The gascolator is located in the lowest point in your fuel system. Its job is to collect water and debris. Sounds like it's important to sump that regularly also.

Fuel Management during your flight is different. You cannot crawl out on your wing and dip your calibrated stick, plus your fuel gauges don't really help you with "fuel remaining". Therefore, the best option is to know your fuel burn on climb out (and time in the climb), and the fuel burn at cruise (and duration). You do NOT need any gauges if you know your engine. Failing that, a fuel flow indicator can provide a very accurate fuel burn number. Use this information to know your fuel burned and fuel reserves enroute. A major cause of fuel exhaustion is the wind; wind was stronger on the nose than forecast, driving more fuel consumption than flight-planned. Remember that winds aloft are only a forecast and often do NOT reflect reality. All you need to do is keep track of fuel burn and duration and you will be OK. If you want the best instrument for this, get yourself an engine monitor with the fuel flow option. I have the JPI 830. I get a constant readout of my fuel flow, fuel on board, fuel to next waypoint and fuel reserve at destination. I can only mismanage fuel by not looking at the big and colorful readouts.

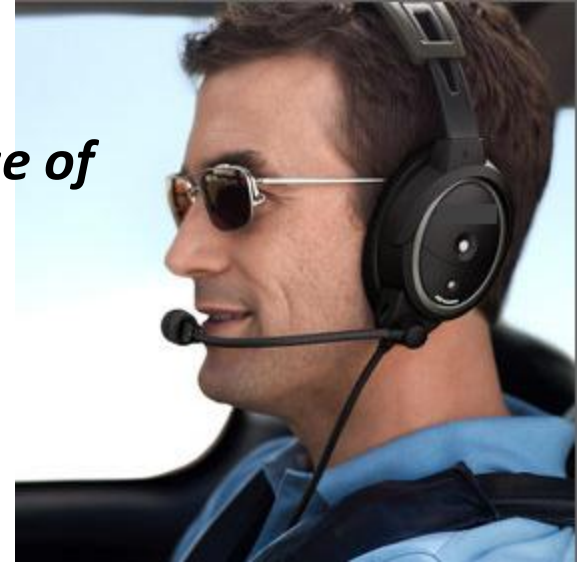

OK, you do all of the things mentioned herein. What else can bite you in regards to fuel management? Well, believe it or not, it is the same thing that is the main cause of gear-up landings, and that is "Distractions". Most gear up incidents are caused by distractions to the PIC in the traffic pattern. Fuel Management distractions occur enroute. These distractions can take any form. They might be passenger activities, weather ahead (a very common cause), instrument failures, not keeping track of fuel burn, etc. Make fuel management a critical part of your enroute PIC duties and put it in your instrument scan, albeit not necessarily as frequently.

I was talking with a retired US Navy Admiral who also was a Naval Aviator. He said that sometimes, pilots just make boneheaded mistakes. He shared

the time he forgot to switch tanks and ran the engine dry. This is typically not a huge “oh-no” if you can switch the tanks and restart the engine. This stuff happens to the best aviators in the world, so it can happen to anyone. I had a similar experience after I bought my first Mooney C model. I was used to high wing gravity fuel feed, so left/right wing fuel management was not in my repertoire. I took a long flight to Shelter Cove, which is a beautiful and remote airstrip on the northern California coast. While checking the fuel, I was standing in front of the prop and said to myself, “the right tank is fuller” (which is the left tank). When I sat in the cockpit, subconsciously I maintained that the right tank is fuller(the passenger side tank). Upon descent into San Jose, at about 2500’, my engine sputtered. Fortunately, my brain immediately told me that on departure, I had made a dyslectic error on which tank was fullest and was able to switch tanks. Of course, the Lycoming restarted immediately. We make boneheaded errors sometimes.

Fuel management is one of the leading causes of forced landings. This statistic is staring us in the face. If it can happen to a US Naval Aviator, it can happen to all of us. The solution is systematic pre-flight checks, enroute fuel burn/reserve checks, and reducing distractions. Denial is not an option. If you want to have a forced landing, perhaps off airport, do it for a good reason, not one that is so easy to avoid.

# *FAA Asks Pilots to Reconsider the Use of Noise Canceling Headsets*



On November 20th, the FAA issued a Special Airworthiness Information Bulletin (SAIB) CE-16-08, urging pilots who use noise cancelling headsets to consider the aural alerts and warning that may be muted because of the noise cancellation. The following is a verbatim, word for word reproduction of SAIB CE-16-08:

**SPECIAL AIRWORTHINESS INFORMATION BULLETIN**

**SAIB: CE-16-08**

**Date: November 20, 2015**

**Introduction**

This Special Airworthiness Information Bulletin (SAIB) advises general aviation pilots and operators of concerns with the use of noise cancelling headsets. In many cases, pilots are using the noise cancelling headsets as supplementary equipment during operations. When wearing these headsets, the pilot may be unaware of environmental sounds and audible warning annunciations in the cockpit that do not come through the intercom system. At this time, the airworthiness concern is not considered an unsafe condition that would w arrant airworthiness directive (AD) action under Title 14 of the Code of Federal Aviation Regulations (14 CFR) part 39.

**Background**

The FAA issued Information for Operators (InFO) 07001 on January 5, 2007, to recommend that operators, directors of operations, chief pilots, and crewmembers of aircraft should evaluate their use of noise cancelling headsets. Many general aviation pilots and operators may be unaware of the safety information presented in InFO 07001.

**Recommendations**

The FAA recommends that general aviation pilots and operators do the following:

• Become familiar with the safety information in FAA InFO 0700, which can be accessed at; https://www.faa.gov/other_visit/aviation_industry/airline_operators/airline_safety/info/all_infos/media/2007/info07001.pdf

• **Elect to find other solutions to discern such alarms or sounds, or discontinue using these headsets if any audible alarms or environmental sounds cannot be discerned while wearing a noise cancelling headset.**

**For Further Information Contact**

David Hirt, Aerospace Engineer, Continued Operational Safety Branch, ACE-113, FAA, Small Airplane Directorate, 901 Locust Room 301, Kansas City, Missouri, 64106; phone: (816) 329- 4050; fax: (816) 329-4090; email: david.hirt@faa.gov.

What are your thoughts? Email us: **Editor@TheMooneyFlyer.com**

Geoff lee.

CFI

# *Power*

Most pilots would agree with the adage that "you can never have too much power". I must include myself in that group, but it has long been apparent to me that the judicious use of power in the landing process escapes the mental processes of many pilots and students alike. Power gives us speed and power overcomes the effects of drag in all its forms. Power in excess of that sufficient to keep us serenely and firmly aloft provides the capability to climb vigorously over obstacles and or reach higher altitudes with ease. The availability of power to a pilot is a blessing – most of the time!

When power or thrust is applied to a propeller driven aircraft before it has enough airflow across the flight controls, strange, disconcerting and even catastrophic events can occur. The full range of events is directly related to the amount of power available and the rate at which the pilot applies it. Events range from the mild left turning tendency (*P factor*) that most GA pilots experience on the takeoff roll, to the catastrophic "torque roll" (*aircraft rotates around the propeller)* , that shortened the military careers of many aspiring WW2 fighter pilots learning to fly very high powered piston aircraft, like the P51 Mustang. The advent of the pure jet engine powered aircraft made all that go away, but jet turbine power/thrust has its own set of disconcerting idiosyncrasies. These relate to the rate at which power becomes available as the throttle is advanced. I digress.

One may correctly surmise from the opening paragraph, that I am having problems getting my students to grasp the landing process as they make the transition to a much higher performance aircraft.

It would seem simple. A pilot applies power in order to take off and ascend and removes power to descend and land. During the landing sequence, in pattern work, continuing to keep a power setting sufficient to keep the aircraft airborne in a non- descending level attitude, past the point of intended touchdown on the downwind leg is a common error. If extending the downwind leg is necessary for any reason, then one should certainly maintain pattern altitude as required, but with minimum throttle application and at a reasonably slow speed. Carrying a low cruise power on the downwind can overly extend the downwind leg and usually promotes wide or steep base and final turns, accompanied by erratic throttle manipulation. Attaining the correct approach speed, attitude and descent rate, can be difficult when scrambling to reduce the speed attained because of excess power on the downwind and base legs. *Wind speed is always a modifying factor.*

In discussion, both pilots related the same or similar sensation that they just felt much more comfortable and in control of the craft by carrying more power when in close ground proximity. This I deemed to be anxiety, born out of minimum or insufficient slow flight practice and associated stall recognition exercises. Confidence was improved in both cases, subsequent to a fair amount of slow flight and stall recognition. Power off landings from the downwind leg are a very important element to practice in any aircraft. The task reveals the importance of the relationship between applied power, altitude, attitude, speed and descent rate, plus how one must "*allow the aircraft to go to the runway*". My students get tired of me singing that song, when they carry excessive power, they only obscure the touch down target with the nose of the aircraft, while "flattening" the attitude. In my opinion, a pilot should develop a good perception of **how little power will be needed to reach the touch down target from any point or altitude** within 3 miles of the airport.

An essential power management exercise to develop the pilots' skill is to allow only partial power on descents from a cross country headed for the airport. Both my pilots were challenged to determine **the**

**minimum amount of power that was needed to reach the airport** while 7 to 10 nm out. This routine demands that the pilot manage the power, the altitude, descent rate and aircraft speed very carefully, apportioning each element relative to its critical relationship to the other elements. **Power could be removed, but not added,** all the way to touch down. This exercise is not for a windy day, but if the power management thought process is instilled and regularly practiced, it is surprising how skillful any pilot can become; even in adverse conditions. Learning to use the **minimal use of power** or minimal available power, is a skill that will be invaluable in an emergency.

During a recent flight from Palm Springs to the Bay area, we encountered light icing at 20,000 ft in an AEROSTAR. When both engines commenced to run rough, a lower altitude was requested. When we were out of the visible moisture, this remedied the situation. The conclusion was, that the aircraft had experienced induction icing on both turbo charged engines. Reduced MP is a usual clue, but it's not necessarily going to produce a rough running engine. Since most injected, high performance engines have an alternate induction air source from inside the cowling, it was decided that obstructed induction air flow was not the issue.

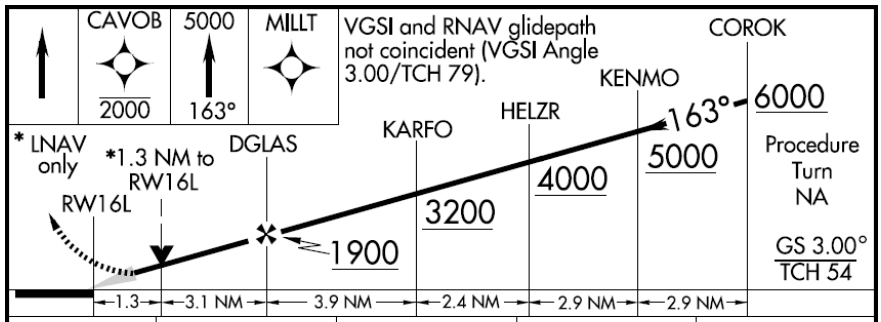
I have experienced the condition on my 231 Rocket in the high teens in the distant past. It was discovered that the "flow divider" on the top of the engine was super cooled and small ice crystals in the fuel had obstructed the fuel flow to the engine. The Rocket Engineering solution to the problem, which has proven effective, was to install an airflow shield in front of the flow divider. Your fuel will always contain a miniscule amount of water.

The moral to the foregoing story is that there are quite a few unforeseen conditions that can reduce the power output of your aircraft engine. It would be prudent to be prepared for any eventuality by knowing how to carefully and comfortably manage your flight, with minimum power in all situations.

# Mooney Tunes

Jim Price

1. You're flying an approach with a glide slope. If it's a 3 degree glide slope (and it usually is), what rate of descent should you see on your VVI if you have a **60 knot ground speed**?




| CATEGORY | A | B | C | D |
|---|---|---|---|---|
| LPV DA | 729/24 296 (300-½) | | | |
| LNAV/VNAV DA | 811/40 378 (400-¾) | | | |
| LNAV MDA | 920/24 487 (500-½) | | 920/40 487 (500-¾) | 920/50 487 (500-1) |
| CIRCLING | 1000-1 567 (600-1) | | 1000-1½ 567 (600-1½) | 1000-2 567 (600-2) |

SEATTLE-TACOMA INTL (SEA) RNAV (GPS) RWY 16L

A. 250 FPM
B. 275 FPM
C. 300 FPM
D. 350 FPM

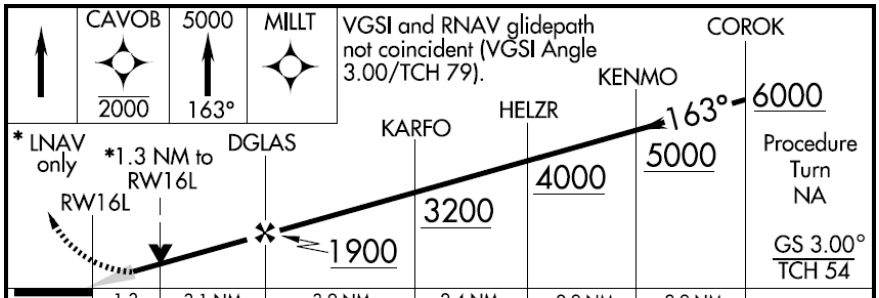
The answer is C, 300 FPM.

How do you calculate that? Divide the groundspeed by 2 and times 10. (GS ÷2 x10 = FPM)

60 knots ground speed ÷ 2 = 30 x 10 = 300 FPM.

80 knots ground speed ÷ 2 = 40 x 10 = 400 FPM.

2. You are unable to utilize a glide slope on the approach in your Category A Mooney, so you'll need to descend from the Final Approach Fix (FAF) to the LNAV MDA of 920 MSL, which is 487' AGL. When you arrive at the Visual Descent Point (VDP), which is 1.3 NM from the end of the runway, you know that 1.3 NM is the distance that will give you a nice _____ degree glide slope to the runway.

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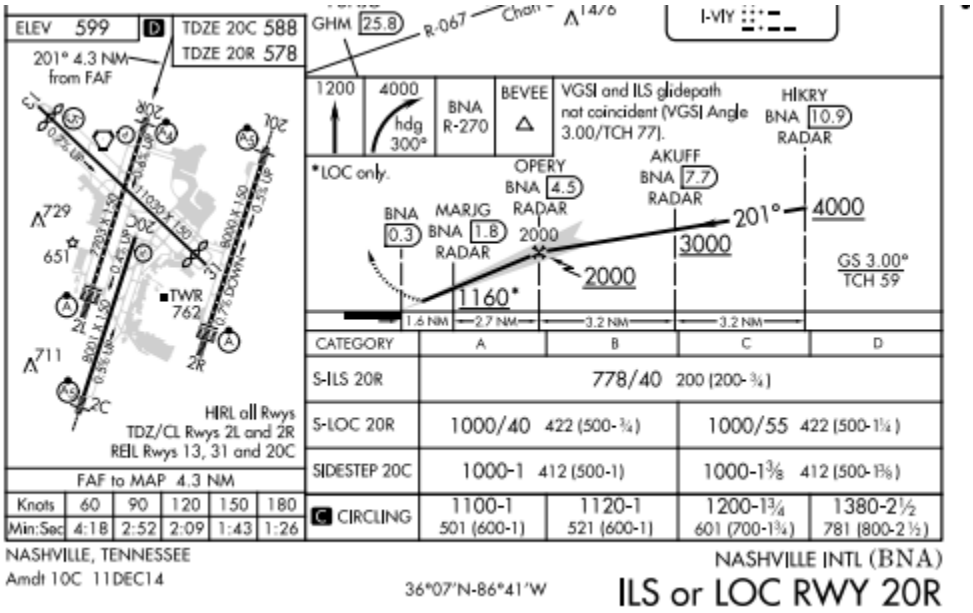
SEATTLE-TACOMA INTL (SEA) RNAV (GPS) RWY 16L

A. 4 degrees
B. 3 degrees
C. 2.5 degrees
D. Beats me!

The answer is A: 3 degree glide slope from the VDP to the runway.

3. What if the chart developers didn't designate a VDP. Consider the localizer approach to runway 20R in Nashville. Note that the HAT at the MDA is 422 feet.




To make the mental math easy, round it down to **400** feet. What is your VDP point?

A. 2.0 NM
B. 2.5 NM
C. 1.0 NM
D. 1.33 NM

## The answer is D, 1.33 NM.

How did we find the VDP?

*VDP = HAT / 300. Therefore, 400 / 300 = 1.33 NM from the runway threshold*

How will you know when you are precisely 1.33 miles from the threshold?

Notice that the runway threshold is at a DME of 0.3 from the localizer. Just add 0.3 to 1.33. At a DME reading of 1.63, that's your visual descent point.

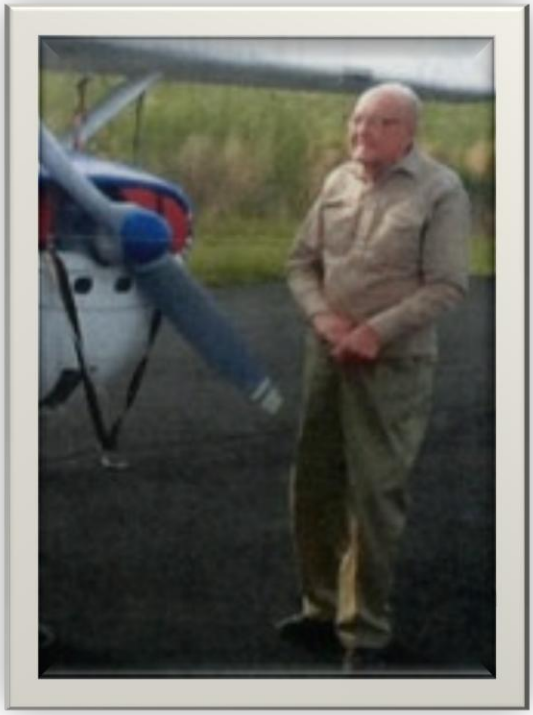
Mike Elliott
MCFI, CFII, Birmingham FSDO FAASTeam Rep
Founder of The Mooney Summit

# *A Connected Community*

by Mike Elliiott

One of the most important things I have come to realize over the last few years, is how "connected" we are within the Mooney Community. I have had the privilege of instructing some of the most interesting and wonderful people in their Mooneys, and I have heard some of the most interesting and wonderful stories.

A few years ago, I was commissioned to help **Joe Dion** find and purchase a Mooney 201. I wrote about this process in the July 2015 Mooney Flyer. Joe purchased the plane from a gentleman named **Harry Fischer**, who had moved up to an Ovation 2GX.



Fast forward about 7,200 gal of 100LL, two Mooney Summits and 10 pounds of lost useful load, to Sept 2015. Premiere Aircraft had put me in touch with **Jeff Martin** to work with him in his, new to him, 2005 Ovation 2GX. See where this is going? Yes, it belonged to **Harry Fischer**! If you thought life would be kind enough to give me an advanced warning so I could fly Joe's plane – Harrys old 201 – to Hattiesburg and get a photo of both of Harrys ex' Mooney's together, you would be wrong. But life is what you make of it. Instead, I flew the Bravo to Hattiesburg and met **Jeff**. He had a full schedule, but we worked the transition training in. We flew to Ardmore, Ok, Midland TX, Lancaster TX and back to Hattiesburg, in just two days. Jeff is a 10,000 hr. private pilot, with a lot of Cirrus and twin time. Getting him up to speed was a simple process. Normally, a transitioning pilot judges their progress by the quality and gentleness of their landings. However, Jeff was more astute than to settle on just this achievement barometer. He received a complete checkout of his G1000 and the interoperability of the S-Tec Autopilot with the G1000. After I was satisfied that I would allow my most prized treasure, my wife, to fly with Jeff in the soup, he received my sign off. During the course of our training, I learned that Jeff began flying his Grandfathers' (**Henry Sims**) straight tail 1964 Cessna 150D, which Henry purchased in August, 1969. Jeff recalled stories of how his grandfather loved that plane, and flying it into the grass strip on his South Carolina farm. To make the field, required a precise base turn at the Baptist church.

Life happens, and we, along with our aluminum mistresses, all become old. For medical reasons, **Henry** sold the C150 in 1976. This was a textbook sad day for Henry, that continued to sadden him. Jeff, in the meantime, became a successful businessman and avid pilot, and he saw an opportunity to repurchase the beloved C150 in April of 2014. He then had it restored and repainted to match the plane, as it was when Henry owned it. Jeff called his grandfather, and asked him to meet him out at the "strip". There, Jeff proceeded to fly the C150 back to the farm, where it had spent so many years in the capable hands of **Henry** Sims. When **Henry** saw the plane arrive, he was speechless. He spent the entire day, just sitting by the beautiful plane and touching it. That night, Henry left us in his sleep. His life was fulfilled by the wonderful thoughtfulness of his grandson Jeff, and the re-incarnation of his plane. I only hope in my twilight days, I can enjoy the same wonderful fulfillment.

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CIRCLE NO. 19 ON READER SERVICE PAGE


Send your questions for Tom to TheMooneyFlyer@gmail.com

### Question 1: What if you smell fuel in the cockpit? What is the problem?

This is not an uncommon problem and can be dangerous if fuel is accumulating in the belly. I have had this reported many times, especially in hot weather. Although the temperature is not that significant, the hot weather seems to amplify the smell and it's most noticeable when you open the cabin door on a hot day..

**Causes:** The most common cause is fuel leaking from the inboard fuel sender gaskets. This is most noticeable on older planes because the gaskets get hard with age. Other causes can be the fuel hoses from the tanks to the fuel selector valve. The next most common cause is when fuel seeps from the rear spar of a tank and the fuel runs down the spar and into the belly. This is probably the leading cause of fuel fumes and is the most common fuel leak. I wish I had a suggestion to help prevent the leaks, but the main comment I have is, don't ignore the smell but determine the cause.

### Question 2: If my fuel gauge reads 1/4 when the fuel annunciator illuminates, are my gauges accurate?

Many of the Mooney models don't have this feature, but for those that do, it will vary with the model, since fuel capacities vary model to model. This is really two separate functions. First, when we calibrate the gages, we drain the tank and add a known quantity, calibrating as we go, until the tank is full. The low level light is adjusted electrically to match the "low level point" for that model of Mooney. From 1978 and on, we have had limited means to calibrate fuel gages, but the systems have slowly improved with each subsequent model. The calibration is pretty good with the current models.

The question should be, "If the gage reads 1/4, is the gage accurate?"
Forget the low light until that question is answered.

**This picture has nothing to do with Mooneys except that there is something in the frame that is very fast and extremely cool. But do NOT try this in your Mooney.**


# Oshkosh Journey
# Part 3: South Dakota

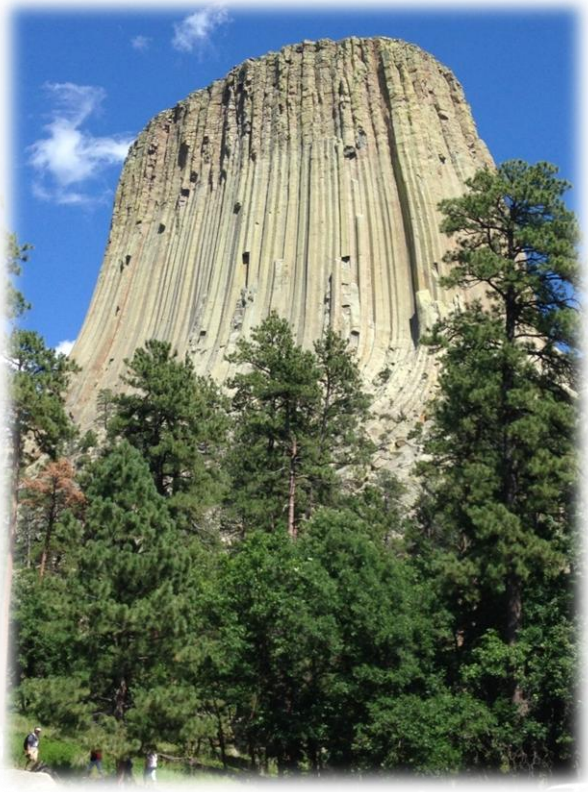
by Linda Corman

In this article we are continuing our adventures to Oshkosh by way of Spearfish, South Dakota. As we flew north, we tried to think of places we had never visited and decided on the Black Hills and the Badlands of South Dakota. Spearfish is located half way between Mount Rushmore and Devil's Tower. As we had already visited the area around Mount Rushmore, we choose to check out the Black Hills. As we headed to the cute town of Spearfish, we flew over some of the most beautiful mountains I have ever seen. Spearfish is located in a wide open valley, surrounded by the Black Mountains. The day we landed at Spearfish airport, the weather was perfect and sunny; "severe clear", as Phil likes to say. The valley was lit up with bright sunshine and the hills were a little shaded by clouds. Now, I understood the reason they are called the Black Hills. These mountains are dense with trees and foliage, so there is a distinct dark color to the whole area. The Black Forest in Germany is named "Black" for the same reason. The airport at Spearfish is in the middle of the valley and very easy to find with its wide open runways. After we landed, we were greeted by the gentleman who runs the FBO and I have to say, he and his staff are first rate. When we decided to go to Spearfish, we had no idea that they were hosting a Corvette car convention in town. We discovered every hotel and motel in town had "No Vacancy". The nice lady that worked in the FBO office tried everywhere, trying to find us a room for a couple of days.

We finally found a room in a small mountain town called Lead, a short drive out of Spearfish, and close to Deadwood. This was fine with us, as we got to drive the scenic canyon highway that takes you in a large loop up to Lead and onto Deadwood. This scenic highway took us through the Spearfish Canyon, with waterfalls and hiking areas. We stopped at Roughlock Lodge, which had a hiking trail to waterfalls with the same name. The falls are gorgeous and this hike is definitely worth it. After we found our hotel, the Blackstone Lodge, we drove through Lead to see this mile high city. The town is charming with old Victorian homes and historic buildings that were built during the town's heyday. The famous Black Hills Gold Rush, (1875-1877), has been retold through countless history books, novels, and movies. These were the times of "famous fortunes" that were filled with excitement, but short lived.

By then, it was lunch time, so we decided to head to Deadwood. This town has a varied history with the best known resident, the card sharp and gun slinger known as Wild Bill Hickok. Phil's favorite character was Bullock from the HBO series Deadwood. I was a little disappointed with Deadwood. I was expecting an old west town with lively action. It was a little tired and run down. There were just a few places to eat and the primary industry is modern casinos. We walked around, trying to find the historic old west we had seen in the movies. We finally decided that the old saloons and shops were not what we wanted and decided to go back to Lead.

We found out that Lead was pronounced "LEED" and not like pencil "lead". I cannot recommend the Blackstone Lodge. The hotel needs some updating and our window looked onto a straight wall of grey rock. Well, at least we had a room. They have an aviation-themed bar with great prices and a full breakfast that's included in the room rate. The next day, we decided to see Devil's Tower. About an hour and half later, we could see the tower rising up from the plains.



In 1906, Theodore Roosevelt proclaimed Devil's Tower the first national monument under the new Antiquities Act. His action made Wyoming the home of both our first national park – Yellowstone, (Ulysses S. Grant, in 1872), and our first national monument. As you get closer, the tower seems to dominate the skyline. We parked at the base of the tower and hiked around the whole monument. The walk is easy, as it is paved with gentle slopes that wind around huge rock formations. As we got around to the back side of

the tower, we noticed a group of people looking up at the tower and realized they were watching rock climbers ascending about halfway up. I was in awe of anyone who would climb that monolith. Records of Tower climbs have been kept since 1937. Some 5,000 climbers come every year from all over the world. A fellow Mooney owner later told us that they played football on the summit. We always like to do a loop instead of retracing our steps. After leaving the Devil's Tower, we stayed on highway 24 and drove around the Black Hills National Forest through a couple of tiny towns called Hulett and Alva. Alva had a population of about 49; too small for my taste. We left Wyoming and entered South Dakota again. The following day we decided to head to the badlands through Rapid City. This next adventure will be in the next issue of the Mooney Flyer.

**Flying Into Spearfish from the Southwest**

KSPF is a wide open airport at 3933' MSL. The runway is 6400'; plenty long for our arrival and departure, despite being in the middle of summer. Eagle Aviation caters to us GA Mooney folks and helped us find a hotel and got us a great deal on a rental car.

During their peak season, there was very little traffic in the pattern on arrival or departure.

**Things to Do**

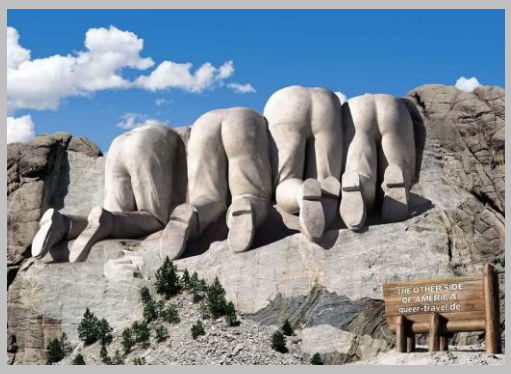
**Drive the Scenic Highway** from Spearfish, counterclockwise to Deadwood. Stop at Roughlock Lodge and hike to Roughlock Falls.

**Visit Deadwood** – Old historic hotels with casinos and lots of history.

**Visit Devil's Tower** – OK, it's worth it just to see the final scene from *Close Encounters of the Third Kind*. The loop trail around the tower is definitely worth it. It's paved the entire way.

**Visit Mount Rushmore** – It's a bucket list item. Make sure you hike the loop which brings you past some historic buildings and right under the noses of the presidents.

Don't forget the backside of Mt Rushmore!






**December 12** Punta Gorda (PGD)
**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.


# *FAA Announces Plan to Replace WACs*

The FAA has announced a new plan to ensure that pilots have all the information they need as the agency phases out world aeronautical charts (WACs).

the FAA said it will produce an Alaska VFR Wall Planning Chart to help pilots as they plan long-distance flights. The wall chart will show all of Alaska as well as the Canadian territory between Washington State and Alaska. The FAA also will produce two new Caribbean VFR Aeronautical Charts that will provide more coverage than is available with the three WACs they will replace. The scale for the Caribbean charts will be 1 to 1 million.

The new charts should be available in early January 2017, when the existing WACs for those areas expire. See a list of sectional charts that will provide coverage for WAC charts that are discontinued.


# *MSA Pay, the Mobile Payment App (Works with U.S. Bank's Multi Service Aviation Card)*

General aviation pilots can now pay for fueling and services directly from their phones with a new app from U.S. Bank Multi Service Aviation.

MSA Pay is designed for the ordering, payment and back office needs of pilots.With MSA Pay, pilots can notify an FBO of their arrival details, special needs and service requests prior to landing. The FBO performs the requested services, notifies the pilot when the plane is ready and sends the pilot an invoice to review and approve.

Once approved, the app automatically emails a copy of the invoice to the pilot for final payment processing.

The MSA Pay app provides both an automated reservation confirmation and the option for FBOs to add a personalized note for pilots before they arrive. The app can also be used for flight planning and scheduling.

The app is now available through the App Store on iPhone, iPad and iPod touch. It will be available through Google Play in early 2016.

# *Garmin releases new flyGarmin app*

Garmin has released the new flyGarmin app for Windows, which simplifies avionics database updates, such as navigation, charts and more, while also accommodating the distribution of Jeppesen charts, according to company officials.

Pilots begin at flyGarmin.com to register their products and purchase databases a la carte or in PilotPak database bundles.

Prior to initiating a database download for the first time, flyGarmin will prompt customers to download the new flyGarmin app.

Once the update process begins, the flyGarmin app will immediately initiate the database download process in the background. When the download is complete, the pilot transfers the databases from their PC to the Garmin device.

Individual databases are only downloaded once, eliminating the need to download the same database multiple times across several different products.

Offered for the first time from Garmin, Jeppesen chart subscribers can now download and update Jeppesen charts in addition to Garmin's databases from a single source. When purchased from JeppDirect.com, all charting databases can be downloaded alongside Garmin databases via the new flyGarmin app.

The flyGarmin app is available for Windows, with Mac availability expected in 2016.

# *Spider S6 now at Aircraft Spruce*

The Spider S6 Portable Global Tracking Solution is now available at Aircraft Spruce.

GPS and Iridium antennas are integrated, so no external aerials required. The Spider plugs into the aircraft cigarette lighter outlet for quick interchange between aircraft/vehicles or it can be hard-wired. No STC is required.

Global coverage is provided over the Iridium Satellite Network in real-time by 66 low earth orbit satellites, with information reaching the website in as little as five seconds.


The SOS button on the keypad can be used in an emergency to send instant alert messages to your pre-set emergency contacts.

If an incident occurs and the Spider loses power, the website will automatically send an SOS message after 15 minutes of no communication.

It also can alert you to changes in altitude and send position updates in real time.

Price: **$1,495**.

# *Sennheiser Exits the Pilot Market*

Sennheiser announced in a Nov. 18 press release that it will stop selling pilot headsets after February 2016. The German audio company known for headsets and microphones built for music and other applications challenged Bose, Lightspeed and other high-end aviation headset makers in 2011.

# *Bad Elf Launches Kickstarter Campaign to Lower ADS-B Portable Prices*

Phoenix-based Bad Elf is best known for its portable remote GPS receivers for tablets, but now it plans to disrupt the portable ADS-B market with products costing as little as **$299** for ADS-B In displaying traffic and weather on tablets. The company has been testing prototypes for several months and this week, it's launching a Kickstarter program to continue development with a goal to bring products to market sometime in mid-2016. LEARN MORE & POSSIBLY CONTRIBUTE

# *ForeFlight Graphical Briefings Added*


HOUSTON – ForeFlight Briefing transforms the coded text briefing into a full-color graphical, interactive presentation. This delivers the required elements of a standard flight briefing in a modern, aesthetically pleasing, and graphical design that helps pilots visualize weather and related flight information along their route of flight. READ MORE

# *FAA certifies L-3 Lynx ADS-B avionics, Aspen Avionics displays for general aviation aircraft*

Federal Aviation Administration (FAA) officials have certified L-3 Aviation Products' (L-3 AP's) Lynx NGT-9000 and NGT-2500 models of Automatic Dependent Surveillance-Broadcast (ADS-B) products to interface with the Aspen Evolution line of Multi-Function Displays (MFDs) and Primary Flight Displays (PFDs) for general aviation (GA) aircraft.

The interface will allow ADS-B weather and traffic data from the NGT-9000's (transponders) or NGT-2500's ADS-B receiver (UAT) to be viewed on the Aspen displays. Additionally, Lynx NextGen Active Traffic from the NGT-9000+ (transponder) model will display active Traffic Awareness System (TAS) traffic onto the Aspen products.

# *ELT 343 – Artex's New Lightweight, Inexpensive 406 ELT*

ACR Electronics's new Artex ELT 345 Emergency Locator Transmitter has received both Cospas-Sarsat and FAA approvals.

Weighing just two pounds, the ELT 345 has flexible installation options, such as a two-wire remote switch that does not require aircraft power. If you already have an Artex 121.5 ELT, there's great news: The ELT 345 is also backward compatible with legacy ARTEX remote switches. The ELT 345 transmitter, dual band whip antenna, remote switch, mounting tray, and all required hardware are priced at less than $600. READ MORE

# *Sporty's Flying with ForeFlight is Newly Updated*

The Flying with ForeFlight program includes new training content that covers the latest features. It's available as an online course (for Windows, Mac and tablets) or as an iPhone/iPad app, for $29.99.

New sections include "how-tos" on loading instrument approach procedures into a flight plan, using the scratchpad templates and track logging and weight and balance functions.

Sporty's Flying with ForeFlight training video also includes the latest version of the Pilot's Guide to ForeFlight Mobile, and a review quiz.

# Avidyne's GPS NAVCOMMS: Plug-And-Play Garmin Replacements

by Kevin Knight

My 1967 M20F is a no-nonsense plane that's saddled with Fred Flintstone avionics and an instrument layout someone must have designed on their kitchen table in Kerrville. Before upgrading to a Mooney, I owned a Cessna 210 in Dallas. What I liked most was the FMS (flight management system) in the Mooney's Garmin GNS480 GPS NAVCOMM. I'd logged more than 100 hours behind Garmin 430 and 530 GPS units, but the 480's FMS was logical and more versatile.

After spending the past three years upgrading my F's interior through Plane Plastics and Oregon Aero, sealing the tanks at Weep No More, and tweaking the engine and airframe at Dugosh, the instrument panel is my 2016 project. As a medical technology pro with a strong bias for research, I've spent months evaluating GPS navcomms. My conclusion is Avidyne's IFD540 and IFD440 plug-and-play replacements for the Garmin 530 and 430 are perfect for my needs. Here's why.

The centerpiece of every modern IFR panel is a WAAS GPS/Navcomm. Since 1998 the most popular models have been Garmin's GNS 430 and 530, with more than 100,000 installed.

In 2003, the company acquired the CNX80 GPS NAVCOMM --- which it renamed the GNS480---- after buying UPSAT for $38 million. Some people believe the acquisition was undertaken to limit competition. Garmin's news releases stressed its interest was UPSAT's ADS-B technology and other assets. Regardless, Garmin became the only seller of integrated GPS/Navcomms with displays.

Four years ago Garmin introduced the GTN650 and GTN750 panel mount systems. They featured touch screens that aren't available on the GNS 430 and 530, and WAAS. They also had a different form factor. Remove a 430 or 530 from the panel and 650 and 750 can't slide in the bracket or mate with the connectors. The only way to address that is with a costly installation.

That led me to Avidyne Corporation near Boston. It introduced the IFD540 in late 2014, and the IFD440 replacement in June. The company and assorted avionic techs told me the change-out often takes less than a minute, although every installation is different.


Avidyne pioneered general aviation's integrated flight deck and developed the Entegra R9 system in Cirrus planes to meld hardware and software. The 540 and 440 were created to compress a lot of that power into a small package.

They do everything the old Garmins do and more thanks to an FMS that receives regular upgrades as new capabilities are added. Built-in features include WAAS, terrain awareness, WiFi and Bluetooth integration, and aural warnings. They have full-featured touch screens which can be pinch-zoomed in and out, plus a compliment of buttons for easy use in turbulence. They also seamlessly interface with lots of other manufacturers' avionics, making them relatively agnostic.


The system's chief architect is 50 year old Steve Jacobson who turned down a spot at MIT to attend the Air Force Academy. He later became a decorated A-10 "Warthog" attack pilot in Bosnia and Desert Storm. After numerous combat missions, he was an Air Force test pilot in California focused on avionics, then earned a masters degree in electrical engineering from Northeastern.

While in Boston on a business trip this year, I had time to visit "Jake" in person and recorded our conversation on my iPhone. He told me, "I want instruments to be an extension of my arm. The fancy name is 'natural user interface.' Then add in the OODA Loop, which was conceived by John Boyd, a genius colonel in the Air Force. OODA stands for observe, orient, decide, act. It's really about dominating your enemy in combat. You take that and other things learned as a fighter pilot and test pilot and it's clear you've got to make this stuff easy to use for a single seat, high workload environment. You can't be wrestling with nested menus and complexity. We could pack our box with six million features, but that would make it worse. You want to push all the complex stuff into the background so it's simple to use but powerful.

"Some people mocked us when we created the R9 display. The digital readouts of airspeed, altitude and heading were in a gigantic, almost cartoon font. But who were the customers? Guys in their 50s and 60s with discretionary income and eyes that are falling off the cliff like mine are. They might find themselves in a high workload environment with bad weather at night in an unfamiliar area. Don't give them a million things on a piece of glass so they can't figure out what's important.

"I'm very bullish on Garmin. They're a successful, multibillion dollar company. But I don't know how to get to stuff out of their boxes, and I do this for a living."

For more perspective, I called Avidyne's 800# and asked customer service if it had some Mooney pilots I could talk with. They referred me to Mary Wunder of Collegeville, Pennsylvania. She's a retired, 62 year old air traffic controller who's owned a 1975 M20F for 20 years. Her great passion is competing in the annual, all-female, multi-state Air Race Classic.

"My husband and I bought our Mooney to go fast," said Mary in her rapid fire patter. "Before upgrading our avionics in October 2014, it had Narco radios and a six-pack. Now it has Avidyne's IFD-540, an Aspen PFD and an S-TEC 30 autopilot.

"I haven't found any downsides to the 540. Not one. It's tied into my JPI multiprobe EGT and provides an on-screen fuel ring, indicating what my reserves are and lots of gee whiz stuff. I'm still learning what it can do, which is a lot.

"As an instrument pilot, it makes me less cautious in the best way possible. I've logged 2,500 hour, have multiple ratings, fly up to 150 hours a year, and am former ATC. I'm not very good at giving up control or sitting in the right seat. That's one of the reasons I love my 540. It's a no-brainer to use. If you look at approaches on its screen, it's stone cold simple. You can do more in less time, which is important in a Mooney because they can really scoot."

I wanted to talk with another Mooney pilot, but lucked out finding the following article by M20S Eagle owner Jorgen Behrens in a European flying magazine called **Instrument Pilot**. (http://www.avidyne.com/downloads/media/InstrumentPilot104.pdf) Behrens replaced his Garmin 530 with an IFD540 in 30 minutes. I suspect he sold that old GPS for enough money to recoup much of the 540's cost.

He wrote, "In general, I really like the device. Notably, flight plan entry is many times easier and less error-prone. The map display is so good I find myself looking a lot less at my portable Garmin 695 and SkyDemon on the iPad. The 'Line Select Keys' seem to always know what I am thinking."

San Diego flight instructor and former Bravo owner Richard Sears echoed those sentiments. He's logged 7,000 hours in fixed wing aircraft and 2,000 in helicopters. He currently owns a Seneca and is VP of sales for a flight training company called LOFT at Palomar Airport.

When he bought the twin a few years ago, it had a Garmin 430 that was solid but dated. Sears considered his upgrade options and recalled his experiences with a Piper Meridian and Cirrus. They featured Avidyne's high-resolution Entegra displays and other cutting edge electronics.


Sears said most GA pilots use GPS in the simplest way possible. If they're flying IFR, Garmin makes it easy to string together VORs and the like. However, many professional pilots don't consider that a true FMS, and it can be challenging when workloads jump.

"I had put a GTN750 and GTN650 in my Mooney and liked it from a layout perspective," said Sears. "However, there were some real drawbacks. If you're talking about a serious IFR platform you really need to think about some things. For instance, you can't plug a hold in the 750. On my IFD540 I can initiate a hold at any point on it. If I want to create a waypoint, I can put a hold there. Things like that.

"When pilots come to our flight center at LOFT, I ask what's the #1 thing that scares them. Most of them tell me 'Holds.'"

Some folks might question the intelligence of installing a cutting edge, panel mount GPS in a plane that's nearly 50 years old. My answer is simple: I'm confident Avidyne's ADS-B-friendly products will help my plane and me fly safer and smarter for at least a few more decades.

To get a hands-on feel for the technology, a free iPad app can be downloaded at http://www.avidyne.com/products/ifd540/ipad-app.asp An excellent training video on the IFD540 is on YouTube at https://www.youtube.com/watch?v=LMu3xXflHjM

For more information, visit www.Avidyne.com and on MooneySpace at: http://mooneyspace.com/topic/16800-avidyne-ifd440-reviews/

Author Kevin Knight is a 1,000 hour, instrument rated pilot who lives in North Texas and the Pacific Northwest.

TMF PRODUCT REVIEW

# Lightspeed "Tango"

Lightspeed has done it again with an industry-leading, wireless ANR headset priced at $800. At the heart of Tango is Lightspeed Link. Developed by Lightspeed engineers to ensure the reliable communication pilots demand, Lightspeed Link is not Bluetooth or WiFi, but incorporates existing technologies chosen for both signal reliability and audio quality, for the aviation environment. The Lightspeed Link connection is so robust, as many as six Tango headsets can be operated in the same aircraft, letting everyone on-board experience the true freedom of wireless flight.

Capture and retrieve incoming and outgoing communications with Lightspeed's free FlightLink recording app for the Apple® iPad® and iPhone® via the supplied patch cable. Enjoy excellent call clarity, music fidelity, and access to critical alerts from aviation apps on mobile devices using either the supplied patch cable or Bluetooth®. The unit will automatically power down if you forget to shut it off after landing.

# 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) 560-8990, 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 Founda- tion. 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.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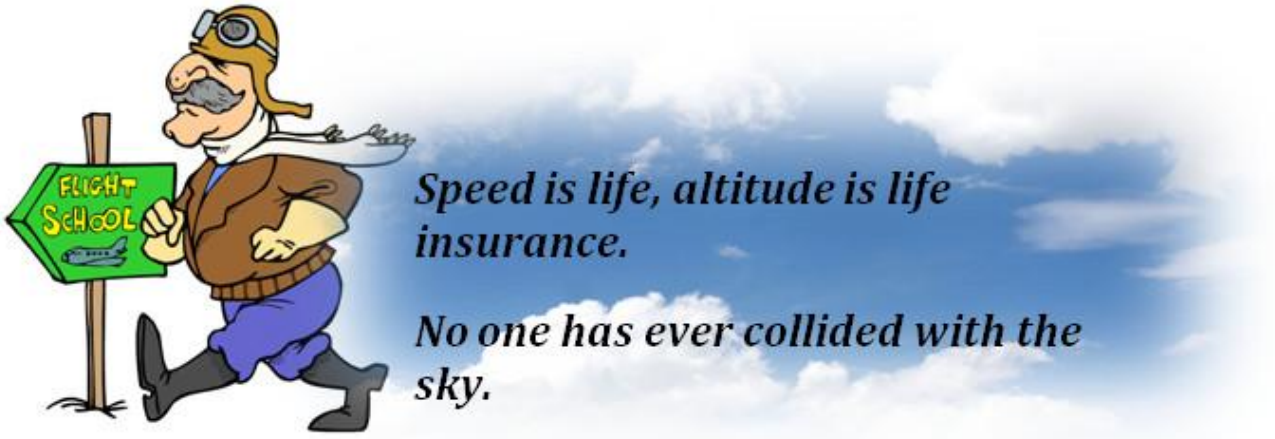
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Speed is life, altitude is life insurance.
No one has ever collided with the sky.


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**As low as $20**

**Rechargeable, portable Airgun.**

**Great for keeping the tires inflated.**

**$80 at Sporty's**

FOR SALE Mooney Stuff

## Mooney N6825U Serial No. 184 Made in 1963, sold in 1964


Airframe total time: 5620 hours. 3,000 of that is mine put on over 30 years. Mainly long trips, over an hour to 50 hour round robins. Coast to coast and border to border.

Engine total time: 500 hours. Since Lycoming zero time remanufacture.
Prop total time: 140 hours. Since new Hartzell following the prop AD. A new one is free of the AD.

Paint: Condition estimate "9." Interior: Condition estimate "9." Based on when new. It is an Airtex cloth total kit. Headliner, floor, seats, side panels. New type Mooney insulation installed when the interior was redone. All interior plastic was repainted at last annual.

Damage History: None. This is for last about 35+ years.

Avionics:

2 Terra Nav Coms, both with glide slope. One one piece, one 2 piece. I have a spare com radio to give with the plane. I know a source for Terra repair & parts.

King ADF (forgot number)

Narco AT 50A transponder with altitude encoder, Narco DME, 690 (?)

King KMA 12B Audio panel with marker beacon

Instruments: Tachometer, Mooney original. Has been serviced by good shop. Cluster Gauge, 6 instruments, R & L fuel, Amps, oil temp oil pres, cyl temp, all recently rebuilt including face. EGT original Mooney Manif Pres/Fuel Pres combo, original Mooney DG, replaced old vertical axis, new type, vertical card, Turn coordinator, replaced old T & B, Attitude Indicator new, replaced old Horizon, Suction gauge new, replaced one built into old horizon, Clock, electrical, replaced old one, Airspeed, original Mooney, Altimeter new, Vertical speed, new Alternate static source valve added, to interior as source, behind altimeter, placarded Headsets, 2, Audio-Com, passive noise cancelling. "Soft Seal" ear muffs, PTT switch on yoke, Hand mike included, speaker in overhead. Yokes resurfaced, rubber Yoke clip for Apollo Precedus and note pad, clips on. Precidus available if an antique is desired. Tank changer tube in side pocket, per Norm Smith, the Mooney Miser. Made from 12 inches of 1/2 inch sch 40 PVC, works well. Heads up use! ncidentals tray on nose gear housing, held by Velcro

Other Additions, etc.
Logs from two owners available, 3,000 hours+, 30 years+.
All AD's complied with. No recurring ones remain.
Engine mount replaced well before engine change, Lake Aero modified one used, ends recurring AD.
An M-20 Air-oil separator is installed.
All hoses were replaced at engine change and covered with fire sleeve
All SCAT replaced
Muffler rebuilt by Knisely some time ago, Is good.
Aileron link replaced, Lake Aero part.
Flap master cylinder rebuilt
Has had one change of shock biscuits
Has a replaced nose gear link by Lake Aero
Has Areo Seal tank sealing by Top Gun, still dry under wing.
No aluminum corrosion ever found, dry climate most of life.
Light rust on door steel tube, less one inch long below door handle hole repaired. No other found.
Ground wire to landing light installed, radio help
New engine came with alternator to replace generator and with light weight starter.
Air box, carb heat flap, alt. intake air, etc rebuilt at engine change.
Oxygen bottle accompanies plane.

Plane is out of annual. Currently hangared at Nervino Field, Beckwourth, CA. FBO Nervino estimates $1,500 to $2,000 for annual. That is negotiable with price. Strongly suggest Nervino do work as they have done all annuals, and major repair for over 30 years, so are familiar with plane and it is a second generation shop, highly respected, low overhead. No ferry permit needed for that. Beckwourth is dusty, hangar not sealed, plane needs a bath and wax again, I'll do that.

Note original engine was overhauled by previous owner at about 2,300 hours. He built Merlins at Packard. Supervised by Nervino. It lasted 2950 hours, still running well, but I was suspicious, one less hour per quart, 7, so replaced it. Operating from 5,000 foot airport in desert air likely helped component life for that engine and new one and airframe.

I have likely left out things, so will discuss anything with an interested party and send anything more you would like to have when I find it. For the big stuff, I estimate I have put in around $80,000 since purchase at today's money value. Engine price has doubled since I replaced mine and prop was bought on special low price because of AD. Mark at Top Gun gave me some current prices. I'm only selling because of two things, mainly the medical where the FAA medication seems more risky than the small ailment, but age 82 as well which means much reduced

## 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 parts@chandleraviation.com

## 1965 Mooney M20E Super21, JBar

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!


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