The Mooney Flyer

The Official Online Magazine for the Mooney Community

www.TheMooneyFlyer.com

May 2018

Features

In Every Issue

Editors
Phil Corman
Jim Price

Contributing Writers
Bruce Jaeger
Bob Kromer
Tom Rouch
Paul Loewen
Geoff Lee
Linda Corman

To Subscribe
Click Here

To Advertise
Click Here

To Submit an Article
Click Here

Click Here to Subscribe **Click Here** For Back Issues

If you love ***The Mooney Flyer*** and want to keep it healthy, just click on the "Donate" button.

Donate

The Beginning of Our Seventh Year

This is a special issue for us at The Mooney Flyer as it marks the beginning of our 7th year. We never knew how long an online Mooney Magazine would last. We survive on your feedback and occasional articles that you submit to make our magazine great. Thank you to all of our readers and advertisers.

This month we were fortunate to have three (3) articles submitted for publication. One is from a long time contributor that most of us know and appreciate. That is Bruce Jaegar who wrote "Time Will Tell" about caring for your Mooney and checking out a new purchase. The other is from first time contributor Richard Brown who was the idea man for having a Mooney Fly-In. He writes up his, and his family's experience at that most excellent and well-attended Fly-In! And lastly, thanks to first time contributor Sam Lindsay who wrote "Take Your Time" reminding all of us just how important it is to be on the numbers when landing. Thanks to Bruce, Sam and Richard for their contributions.

West Coast Mooney Club Fly-In REPORT

There are two reports in this issue on the very successful West Coast Mooney Club Fly-In on April 14 in Paso Robles. It was that fun! When Mooniacs decide to do something, they do it BIG and do it WELL! That was on clear display at Paso Robles as The Mooney Flyer hosted the inaugural West Coast Mooney Club fly-in on April 14th. The

Mooney gods were present as the weather was Severe VFR with a cloudless, windless, warm sunny day, all day.

Fifty Three (55) airplanes arrived all day long with a few non-Mooneys (flown by Mooniacs) whose planes were not available. Now that's Mooney Spirit! Chris Harshman flew his new F to the Fly-in for his first flight.

The Fly-In was the original brainstorm of Richard Brown, who floated the idea on

MooneySpace. I jumped in and offered to host the fly-in at Paso Robles (KPRB). To encourage Mooniacs, I offered a FREE BBQ, fully expecting 5-8 Mooneys to show up. In the meantime, Mike Rogers decided to step up and start The West Coast Mooney Club and subsequently started hyping both the Club and the Fly-In. It worked. We filled the ramp with Mooneys.

Everyone landed safely and then Phil Corman and Ron Shave expertly marshalled them to a tie-down on our own private ramp. There was little, if any, confusion. Everyone was greeted with a handshake and a Mooney bag with water, Mooney wipes, and Aircraft Spruce DVDs.

When the count went to 125 attendees, we moved from Phil's hangar to a larger one. The local EAA Chapter 465, led by Dave Fretwell, assisted in the setup. They also taxied their homebuilts to the ramp and joined in the festivities.

Phil opened the lunch by welcoming everyone and introducing key supporters. First and foremost was Richard Similie of Delta Aviation, who brought a new Acclaim Ultra.

During lunch, Richard gave away some cool Mooney pens. Then Phil delivered Mooney Trivia questions, provided by Tom Rouch of Top Gun Aviation and Kelly McMullen, Mooney guru extraordinare. Thanks to both of them. Lots of prizes were handed out including CO detectors, Mooney door seals, and more.

While people continued to enjoy the Tri-Tip, Ham, Chili, fresh Garden Salad and desserts, Phil gave out awards for prettiest Short, Medium and Long Body Mooneys, as well as Longest Flight, Best Supporting FBO, Best Supporting Co-Pilot (awarded to Linda Corman for all she did to decorate the hangar, cook, and serve), and other fun awards. Pictured to the right are Brice and Trish Dill, who won both Prettiest Short Body (and no, Trish is not short) and Longest Flight. Good times!

After lunch, Greg Baker of LASAR gave out all sorts of fun toys and made an interesting presentation. He invited everyone to the LASAR festival and fly-in on September 7-8 in Lakeport. Let's all plan on showing up and once again, flooding the ramp with Mooneys.

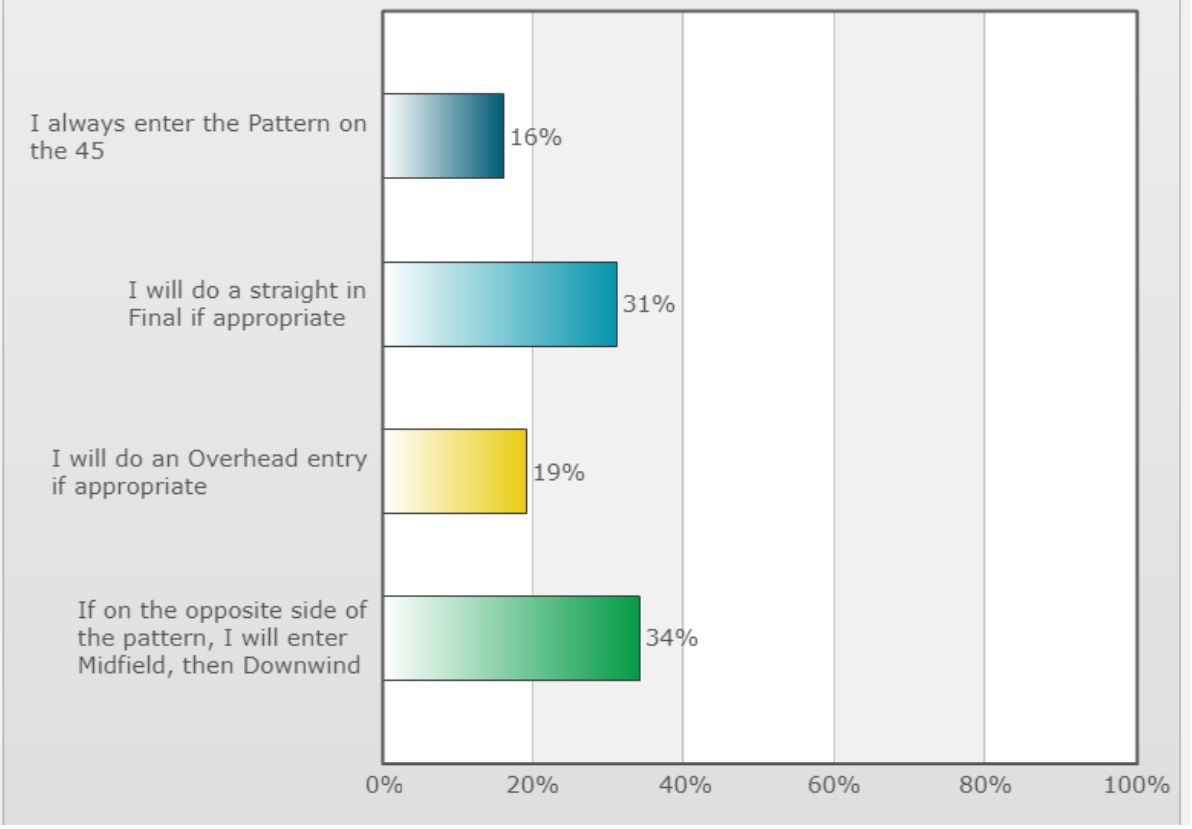

221


Mooniac

Regarding Pattern Entry at an Uncontrolled Field

Poll created by Phil Corman on 03/05/2018

Poll Results



Next month's poll:"Which Mooney Model do you own?" **CLICK HERE** to vote.

Appraise Your Mooney's Value

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

M20C M20E M20F M20G M20J M20K M20R M20M

CLICK HERE for the most comprehensive list of Mooney Instructors in the US.

IF YOU BUILD IT, THEY WILL COME... KPRB FLY-IN

by Richard Brown

So goes the famous line from "Field of Dreams." What does that have to do with a Mooney fly-in? Allow me to explain...

About a year ago we had a fly-in at Harris Ranch. It was my first fly-in and it was a lot of fun. This was followed by an unsuccessful attempt to put together another fly-in later in the year which didn't go anywhere. In February, I started another thread over on the Mooneyspace forums to see if there was some interest for a fly-in and what ideas people had for a location. There were ideas posted for a few different locations and then Phil Corman of The Mooney Flyer magazine offered to host the event at his hangar in Paso Robles. We thought that we would get the usual 6-8 planes. Everyone agreed that setting would lend itself to visiting.

With a location decided upon, we needed a date. Another thread was started with a poll to choose the date; the date with the most votes, would be the “winner”. The poll went back and forth, but eventually April 14th was set as the date and it looked like we would get maybe 10-12 planes.

Phil was an amazing host and has been described as having the infectious spirit of a 6 year old. ***He was so excited that there were over 50 planes registered that he said he woke up at 3am and couldn't go back to sleep. It was like Christmas as a kid.***

Into the picture stepped Michael Rodgers, who just got his new to him Mooney a few months ago. He has every bit as much an infectious spirit as Phil. Seeing that there was no Mooney Club here on the west coast, Mike started one. It was originally a California club, but Mooneys are for travelling so it was changed to the West Coast Mooney Club. As Mike worked with Phil on the details, he secured sponsors and the event grew, and grew, and grew. They even arranged for Richard Simile from Mooney to fly in a brand new Acclaim Ultra for everyone to drool over; I think everyone did. By the week of the fly-in, there were over 50 planes registered and nearly 100 guests. So, "If you build it (or pick a date), they will come...."

The weather the day of the fly-in was perfect. The winds were light and the skies were clear. I brought my wife and son along with a friend of his who had never been in a small plane before. We stayed low at 4,500', (there's more to see down low), which was just high enough to slip over the hills north of Santa Barbara. My wife had been wanting to fly over the hills while they were still green from the spring rains before the summer heat turned them brown. We were not disappointed. The hills were beautiful and we even flew past some hills with golden fields of poppies.

Lake Cachuma near Santa Ynez and Solvang

Golden California Poppies on the hillsides

As we began our descent into Paso Robles, I started monitoring the CTAF and could hear other Mooneys on the frequency. We entered the pattern on a left downwind to 19 behind two other Mooneys, and were soon taxiing to parking.

Left downwind runway 19

Phil greeted us at the plane as I shut down the engine and someone else came by with a welcome bag of stuff. It was perfect. There was a huge ramp area for everyone to park, right in front of a beautiful hangar that they had decorated and set up tables and chairs.

I grabbed a radio that a friend had given me and went out to help direct arrivals while my wife joined Linda in the kitchen to help out.

Ron and Phil directing planes into parking

The planes kept coming, and coming, and coming. Paso Robles is a non-towered field and everyone made great radio calls so that even with all the planes coming in and the regular traffic, it was as smooth as any of the busy Saturdays that I spent training at a towered field.

Oakland Center controls the airspace in that area and I think it was John who said as he was coming in, that the contollers mentioned that there were a lot of Mooneys heading to Paso Robles, and asked if there was something going on. He told them we were having a fly-in and that there was going to be about 50 planes at PRB. The Controllers response was, "I think I've already landed 100." He followed that up with a request that not everyone leave at the same time.

Eventually all of the space on the ramp was taken and the last few planes were squeezed in. Kelly had brought a drone and had clearance to fly it over the ramp to get video of all the planes. There were awards given out to the nicest of the different models. This was difficult because there were so many beautiful planes there. There was an award given to Brice for flying the farthest (he came in from Phoenix). ***Technically, Richard came from a little further in the Ultra, but sponsors don't win awards do they?***

Oakland Center asked the 40th Mooney enroute what the heck was going on in Paso Robles attracting so many Mooneys? He asked how many were anticipated. I told him more than 50. Center came back and said I have a request. “Please tell them not to take off at the same time!”

There were presentations by Richard Simile from Mooney on the state of the company and Greg Baker from LASAR. The Acclaim Ultra, the fastest production single engine piston in the world, is a beautiful plane. If someone has an extra $800,000 laying around and doesn't know what to do with it, then they can go ahead and buy me that plane. The food was plentiful and excellent, and the visiting and camaraderie was wonderful.

I could get used to sitting in this plane

Eventually it was time for things to wind down, and one by one, people started pre-flighting their planes, starting up, and taxiing out. The final count was 53 planes (mostly Mooneys) and 125 people. Thank you to Phil and Mike for making the Inaugural Fly In of the West Coast Mooney Club a huge success. I am looking forward to many more in the years to come!

TAKE YOUR TIME

by Sam Lindsay, CFI / II / MEI

Who has not landed a Mooney, or for that fact, any plane, and wondered, “When is this bird going to touch down?”. Or perhaps you are in a slump and seem to be botching your landings, wondering why this is happening.

As a long time Mooney instructor, one of the most common things I see in pilots landing our slick-winged airplanes is a rush to land, often well before the airplane is ready to touch down. What happens next is sometimes uncomfortable, possibly dangerous, and most certainly avoidable!

The first thing we all have learned when transitioning into a Mooney is to fly the numbers. Almost universally, that number on final should be 80. Whether your airspeed indicator is in knots or miles per hours, it’s a good bet that your best speed is 80 on final, at least until you get to the fence. It’s true for the short bodies in MPH, it’s true for the medium bodies in knots, and it’s true all the way up to our long nosed brethren. Porsche’s, 252’s, Missiles, and even the Screaming Eagle like to approach at 80. OK, so maybe the Mite and the Mustang are the exception here, but you get the drift.

If you approach at a higher airspeed than 80, and attempt to force the touchdown before the plane is ready to land, you will most likely bounce and head skyward, only to find your airspeed dropping, as well as your belly. Oh, that was ugly! Let’s hope you heard that little voice screaming in your headset saying “Go Around” before the third bounce and subsequent grinding on your wallet (and insurance premiums).

So back to our title, “Take Your Time”. The Mooney wing is an aerodynamic marvel designed years ago by our friends in Kerrville. It’s one of the most efficient wings ever designed, with smooth lines and laminar flow. Hum, laminar flow, now there’s a catchy phrase. What that means to you and me is that the wing produces much less drag, even at slow speeds, than the typical general aviation wing.

The less drag a wing creates at a given speed, the longer it takes for that wing (and attached airframe and human components) to slow down. Factor in the reduced drag experienced within ground effect, and you get a machine that will consume vast quantities of runway with very little encouragement (i.e., engine power).

So, when I teach Mooney transitions, I like to demonstrate how every 1 MPH/KT over the target airspeed adds 100 feet of runway consumed during the level-off phase of landing. Come in at 10 MPH/KTS over 80, and you will use another 1000 feet of runway. Force the touchdown prior to that 1000 foot mark, and away you go for another traffic pattern.

OK, once again, back to our title. Take your time during the level-off phase of your landing. Don’t rush the touchdown, and be sure to have a slight flare with only about 5 degrees nose-up. Smoothly transition the nose of the plane to this attitude during the round-out and then hold it there. The plane will pretty much do the rest of the work for you. Once the main wheels are firmly on the ground, keep the nose up as long as possible with additional back pressure. This can be especially elusive when you do not have passengers in the back, and the long nose models can really be tough in any weight and balance configuration.

Practice this technique the next time you’re defying gravity, and your special guests will be ever so thankful.

Hi Jim & Phil, love your online Mooney magazine. I am an A&P and own a 1974 M20F. I am installing a EDM 800 and I am trying to route the fuel line from the fuel pump to the fuel servo with the fuel flow sending unit in the feed line per the JP Instruments installation manual. I am having a problem finding a good way to route the fuel line. JP instruments was no help. I was hoping there was someone you can refer me to who has this done and maybe can email me a picture or two of how this line was routed on their Mooney. Any help would be appreciated.
Thanks, Mike

Editor Response: Mike, this is SOP for most STC installations. They leave a lot of the fit and finish to the installing mechanic. Use the AC 43.13 as your guide. I always like to see actual FP and not just FF if this is an option.

Generally, I make a mount for the FF transducer and mount it with Adel clamps on the aft side of the steel Engine Mount on the horizontal plane. Use steel AN fittings and custom make the flexible fuel lines to route in a safe, neat manner.

I have a M20J in progress as we speak. It takes as much labor to remove all the old instruments for this STO mounted EDM900 as it does to just install the 900!

RE: The PRB Fly-In - I want to thank Phil Corman of the Mooney Flyer for putting on a phenomenal fly-in for all Mooneys on the west coast. My wife and I had a great time and realize how much work goes into producing something like this. Phil's wife clearly did most of the hangar planning as the decorations were awesomely Mooney-ish! I was mostly impressed by the food and the professional parking as so many Mooneys taxied in. Let's do this again!
Dave

Editor Note: The Mooney Flyer thrives on smiles of Mooniacs! You made our day! Thanks to Mike Rodgers, who formed the West Coast Mooney Club and to Richard Brown for suggesting this fly-in! Great Mooniacs all around!

TIME WILL TELL

by Bruce Jaeger

Back in the 60's when I was just a kid, Mooney was manufacturing over 300 airplanes a year. That's the same decade when President Kennedy was assassinated and man first landed on the moon. Autos built in the 60's are today restored collector items, scraped or recycled. Yet, we expect our vintage Mooney to be like new. The reality is that the years have affected Mooney airplanes right along with our Cessna, Piper and Beechcraft friends.

Like many of you, I flew brand new Mooney airplanes in the 1970's. Many, if not most of these vintage airplanes, remain in great condition. Certainly, the fuel tanks have reached their service life and new technology has helped resolve this problem. Overhauling engines, propellers and accessories along with avionics, paint and interior upgrades are accepted as a required part of the flying privilege. Thanks to the original design, vintage Mooney performance rivals the later models. Factory support for even the earliest models remains, but the effects of age are too often overlooked.

If you were considering the purchase of a preowned airplane, common sense would tell you to take it to a specialist. This would be the case no matter the aircraft model or manufacturer. As a second-generation owner of a 50-year Mooney factory authorized service center, we often received requests to evaluate an aircraft for a purchaser. We looked forward to the opportunity, but completing such an evaluation came with challenges and responsibility. Initial impression is important, but too often, that impression may be a deciding factor. It is not difficult to complete a flight test confirming performance and general operation of equipment. Determining engine and accessory condition is also not too tough for an experienced technician. Evaluation of logbooks will add comfort for a prospective new owner. So, what is the problem?

The rub comes when a current owner has made previous decisions to not address all service bulletins and has paid little attention to the presence of corrosion. A service facility is not mandated by FAA requirements to comply with service bulletins or to look closely for corrosion. When one of our technicians was asked what we did about inspecting and cleaning wheel wells, I was disappointed to learn that we did not have time. Though not technically irresponsible, there is certainly a moral obligation to advise a Mooney owner of the possible consequences of neglecting this area. A few minutes once a year, cleaning and treating could eliminate dramatic grief. What is inside your wheel wells and tubes and wing? If you do not know, there is no better time than right now to take a look.

The time will come for an owner to sell or upgrade to a newer model. An educated prospect will schedule a prepurchase evaluation at an experienced Mooney service facility. All looks good until there is a careful evaluation of the tubular structure in compliance with a mandatory service bulletin. Presence of corrosion or revealing of some unknown history, can put the brakes on a sale. This doesn't need to happen.

I can personally testify that there is a difference between simply returning to service, versus offering for sale. Return to service does not mandate total compliance of all service bulletins. Buyers today are well-educated and are going to demand compliance with service bulletins that may have been neglected for years. A service facility is also not going to accept any responsibility for an owner's previous decisions. In the end, an aircraft owner will need to comply, so stepping up sooner, rather than later, is the right decision.

I can personally attest to the disappointment when a Mooney owner discovers a problem that should have been revealed long ago. Coming from the Midwest, I used to feel that we did not have corrosion problems. Wrong!!

The Mooney is a tremendous airplane. Yet there are examples where lack or delay of service has led to significant disappointment. Whether you are considering upgrading, marketing your Mooney, or enjoying it forever, there will never be a better time to find the answer to all the inevitable maintenance questions. Ignorance is not an excuse.

Fly Safe,
Bruce Jaeger

TMF QUICK FACTS

Texas' Midland Air and Space airport (KMAF) and California's Mojave Air and Space airport (MHV) have a rocket symbol adjacent to their airport symbols. Does that mean that a ground to air missile could be locked onto your airplane? Nope. It's all about shattered dreams.

XCOR Aerospace, a company that for nearly 20 years had been working on rocket engines and a suborbital "spaceplane", established offices and launch sites at the Midland and Mojave airports.

These cities were so excited about this development, that they added "Air & Space" to their airport names.

XCOR Aerospace had been working for nearly a decade on the Lynx suborbital spaceplane, but technical and financial issues kept it from completing a prototype. In June, 2017, they terminated all their employees and on November 8, 2017, after it was unable to line up new investors, XCOR filed for bankruptcy. However, the rocket symbols remain on the sectional charts.

General Aviation Trends

What's the state of the general aviation (GA) industry? Unfortunately, there's no simple answer, although I've listened quietly to many pilots who were willing to offer their prophetic opinions.

GA includes a huge variety of airplanes, pilots, and operations. It's tricky, because the powered parachute is in the same bag as the Gulfstream. Therefore, taking the pulse of the GA industry depends on your history and perspective. Compared to 1978, general aviation looks dismal when you look at the number of active pilots, new airplane deliveries, number of airports, etc. On the other hand, if you learned to fly in 2009, things look a lot better.

Some changes can't be statistically measured. Free ADS-B weather on an iPad is an improvement over the days when we had to have a radio conversation with Flight Service. Although ADS-B and an iPad is a great improvement, we can't measure the improvement using FAA data. In addition, self-serve fuel, less non-certified cheap avionics, and a more flexible FAA enforcement philosophy help pilots, but in less measurable ways.

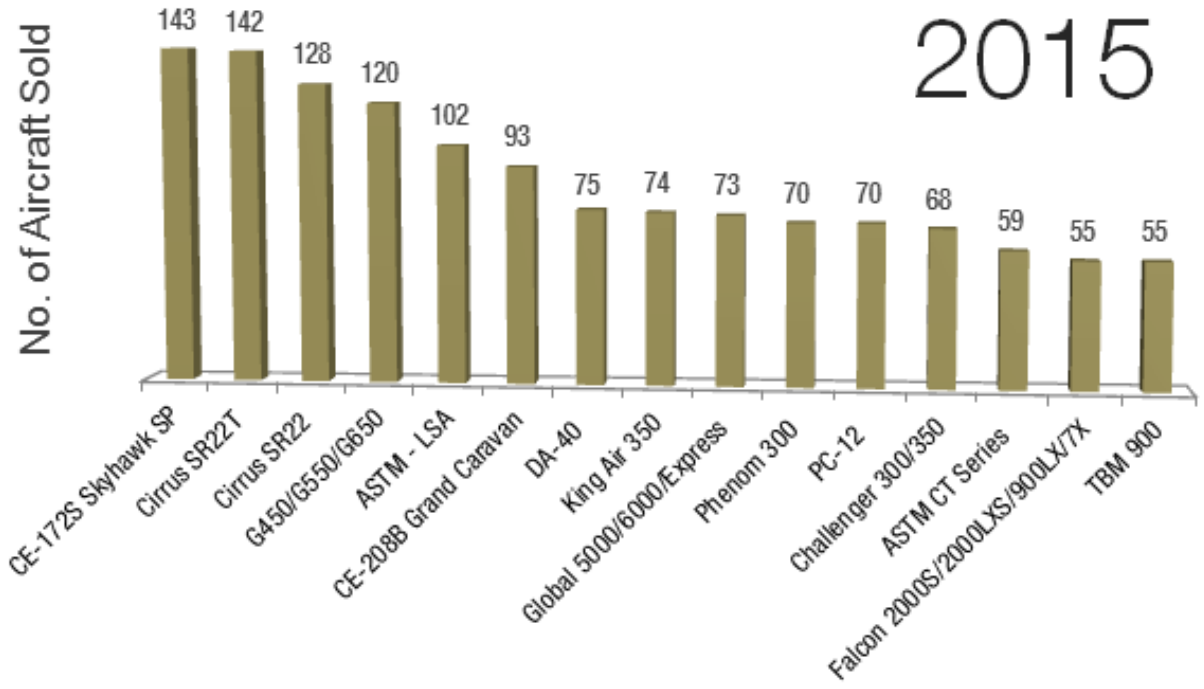
Let's look at some charts and indicators that show trends in GA over the past 12 – 20 years, and how those might indicate changes to come in GA. The charts and indicators consider airplanes, activity, pilots and safety.

Airplanes and Activity

1). New Airplane Sales are less than Stellar

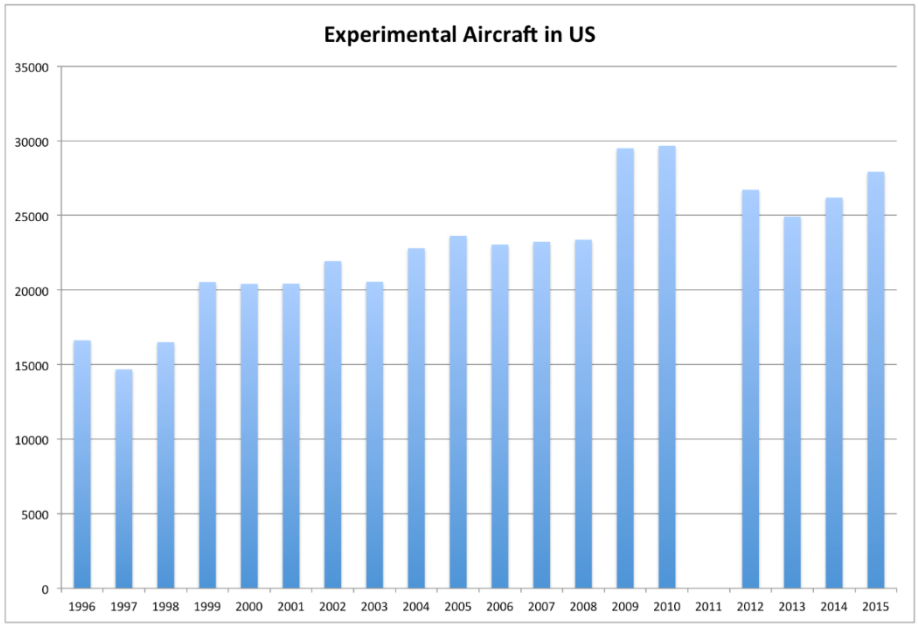
One way to measure GA trends is by the number of new piston airplane sales (published by GAMA). In 2006, new sales peaked at about 2,250. In 2008, sales had declined to about 1,700. But, the 2008 Great Recession was not kind to GA, with 2009 sales at a mere 750. New aircraft sales have never recovered. General aviation today is much more about old airplane restoration and upgrades, rather than buying new airplanes.

Here's a breakdown of aircraft sold in 2015.



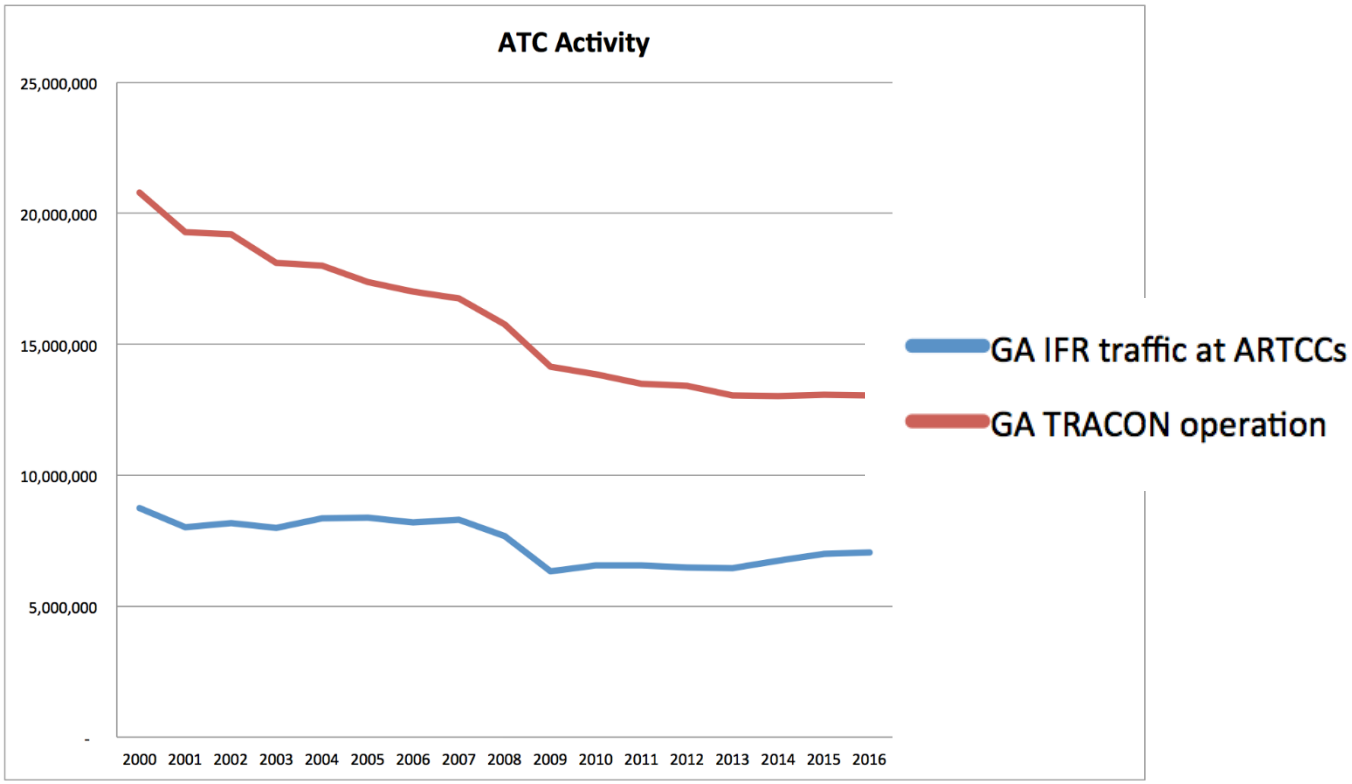
2). Experimental Aircraft are Very Popular

The Van's RV series isn't quite the 21st century successor to the Cessna 100 series, but the market is slowly moving that way. Every year, between 2,000 and 3,000 Experimental kits are sold.



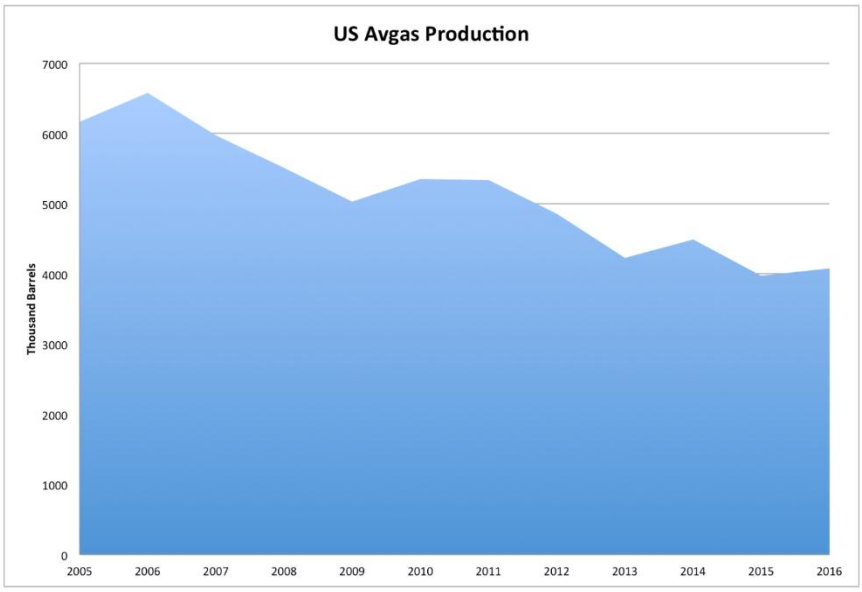
3). GA Aircraft Flying has Decreased

This could be a result of less flying overall, or simply because pilots are utilizing fewer ATC services.



4). Avgas, when compared to the Global Energy market, is almost irrelevant

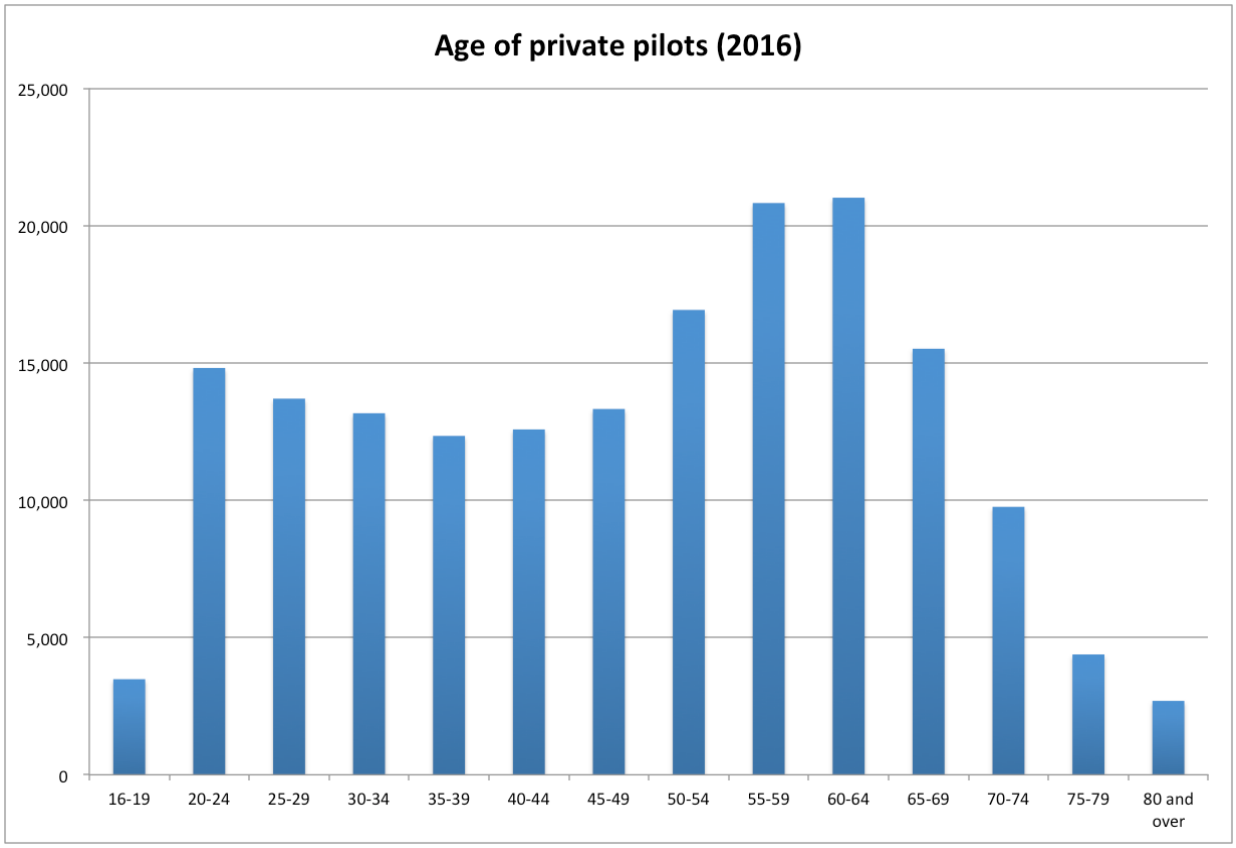
As new unleaded gas, diesel and electric power plants are developed, we might see the Avgas volume continue to drop.



Pilots

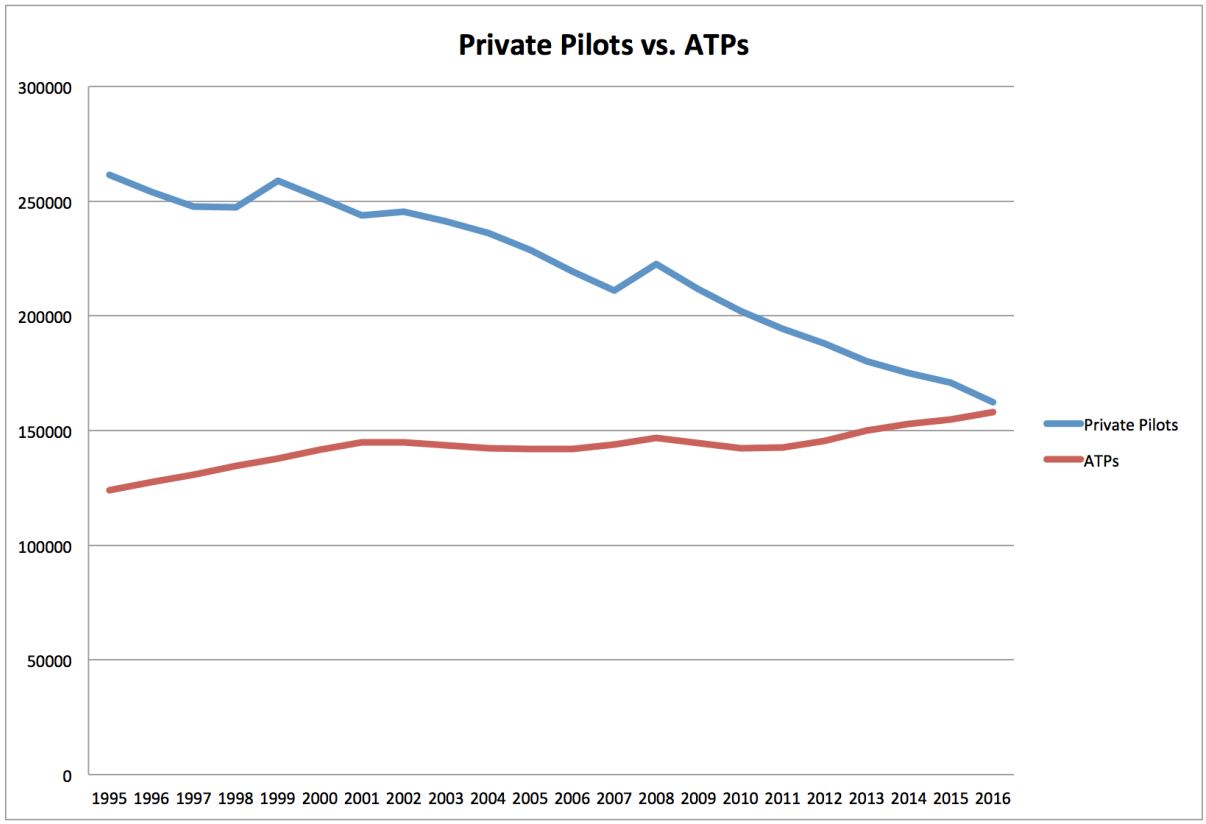
5). Private pilots average age is younger than you think

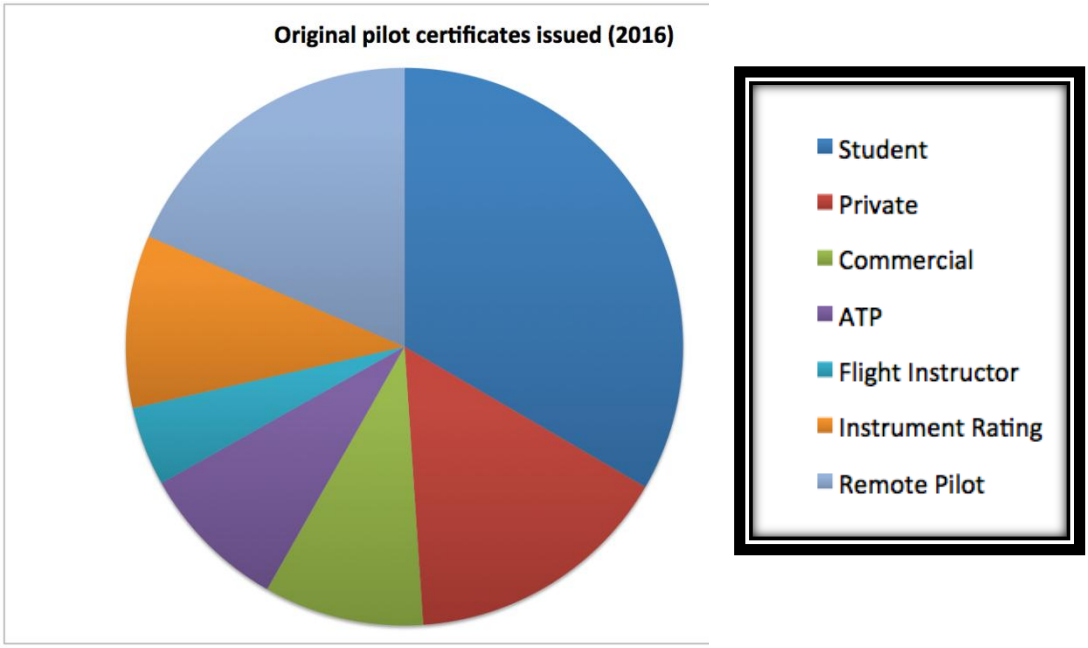
The distribution of age for private pilots is interesting. It appears to peak at ages under 30, dominated by those pursuing a career in aviation. The age of pilots then fades through the 30s before booming between ages 50-70. That's because in that phase of life, time and money are often more abundant. The average age of a private pilot in 2016 was 48.4. It's about the same for other pilot groups, with 56.4 for sport pilots, 46.0 for commercial pilots, and 50.2 for ATPs.



6. ATPs will soon Outnumber Private Pilots.

The pilot population is increasingly professional, not recreational. Active private pilots are declining, from over 250,000 in 1995 to a little over 150,000 in 2016. However, the number of active ATPs is slowly increasing to a little over 150,00 in 2016.

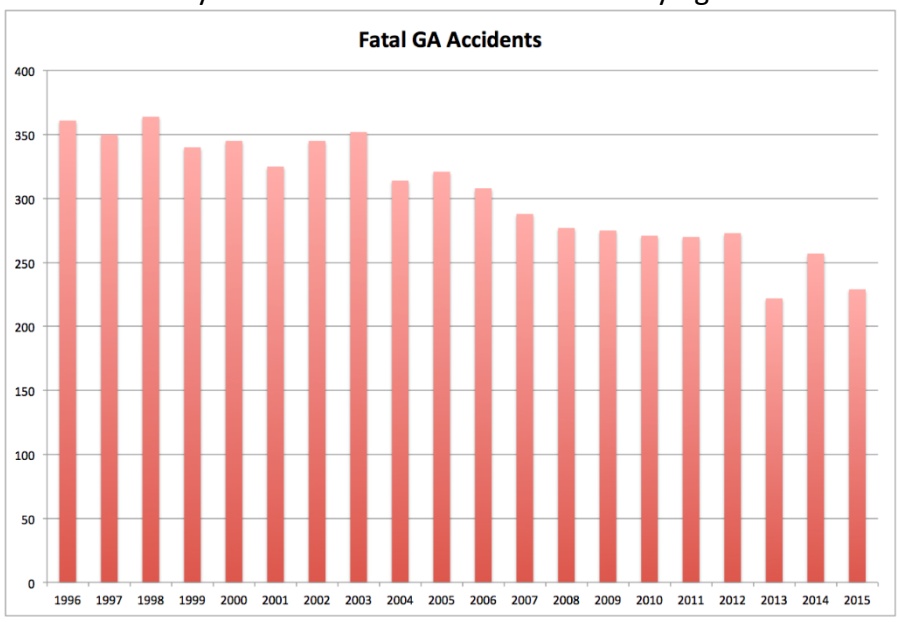




Safety

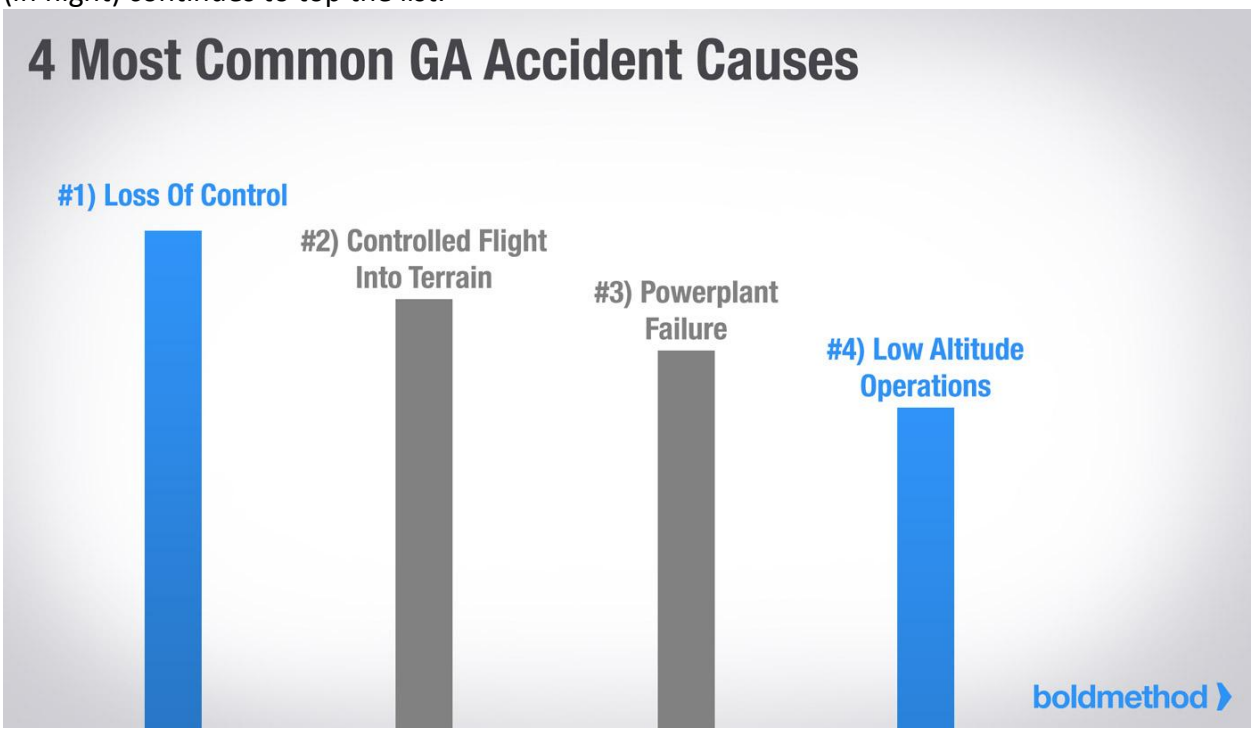
7. Fatal accidents are declining.

The number of fatal accidents is slowly declining, from a little over 350 in 1996 to around 225 in 2015. Obviously this could be due to either safer flying or lower levels of activity.



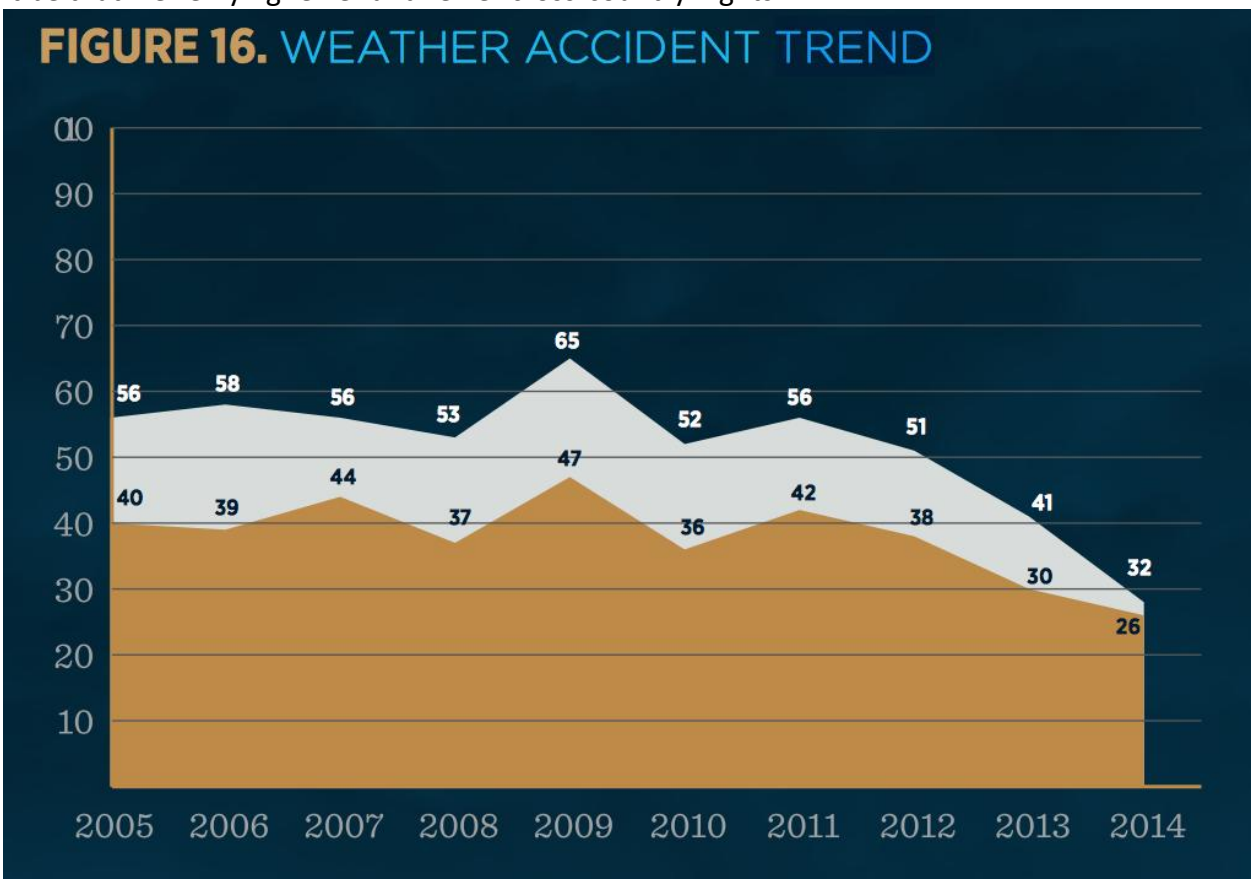
8. The Causes are not Surprising

Loss of Control has been the focus of the FAA's attention in the past 5 years. Yet, Loss of Control (in flight) continues to top the list.



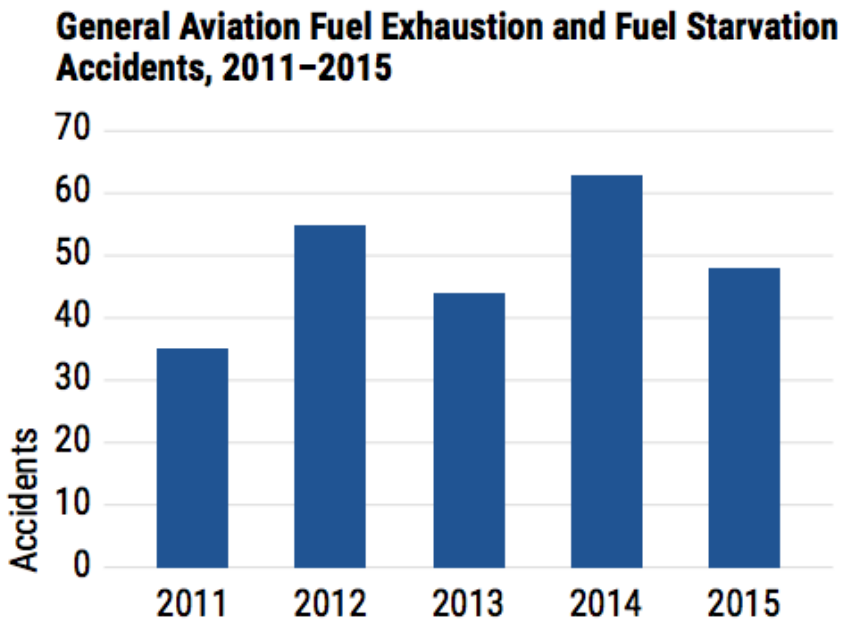
9. Fewer Weather Accidents

On the positive side, weather-related accidents seem to be declining, according to the AOPA Nall report. The most common cause of a weather accident is "Continued VFR flight into IMC Conditions" (69% in 2014). Perhaps technology is helping pilots avoid these weather traps. Or could it be that we're flying fewer and fewer cross-country flights.



10. We still have pilots who can't seem to take off with sufficient fuel

Another familiar accident cause – fuel exhaustion or starvation – has not gone away. As an NTSB alert recently highlighted, roughly 50 airplanes crash every year because there was either no fuel on board the airplane or no fuel getting to the engine. This most preventable accident has not been solved by technology, at least not yet. It's the person in the left seat that keeps fouling up.



Conclusions?

The 2008-2009 financial crisis clearly dealt a heavy blow to general aviation activity. However, the 2017 data may be slightly more encouraging. The word “pilot” increasingly means professionals and drone operators, not just recreational flyers. In addition, while the safety record may be improving slightly, airplanes still crash because the pilot lost control or ran out of gas.

Sometimes, the more things change, the more they stay the same. So, what can you do to improve aviation safety and really make a difference?

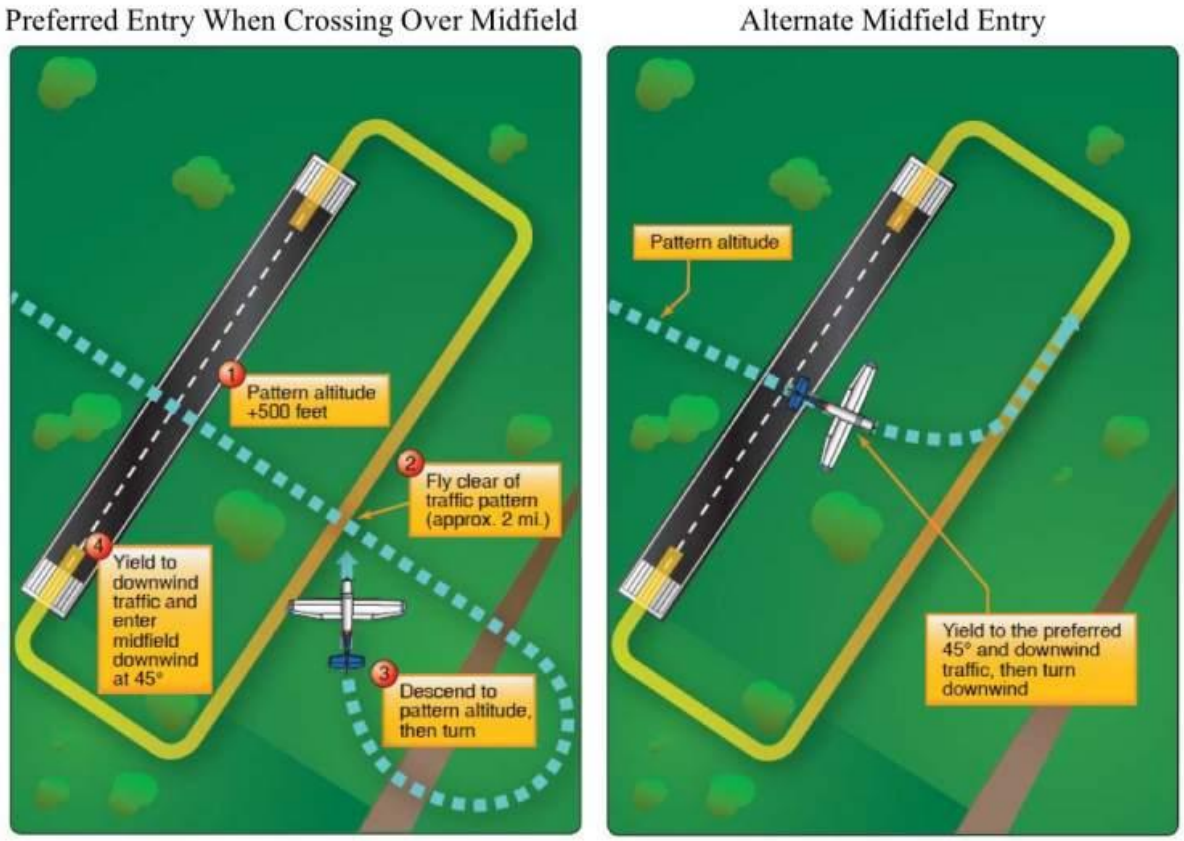
PHIL CORMAN

AC_90-66B

Traffic Pattern Update

The FAA issued a new Advisory Circular for Traffic Patterns in non-towered Airports. It is important that all Mooney pilots understand this, so that you can have your eyes on airplanes entering the pattern from new directions. **CLICK HERE** to read the entire AC_90-66B.

Figure 1. Preferred and Alternate Entry When Crossing Midfield (From the PHAK)



The existing method for entering the pattern when approaching from the opposite side of the traffic pattern is to fly over the field at traffic pattern altitude (TPA) + 500' and then perform a 225° right descending turn to enter the pattern on a 45°. The AC indicates that a Midfield Entry can now be made at TPA with a direct 90° turn to the downwind leg. The AC is clear that you should yield to traffic on the 45° or downwind. This method appears to require less time in the pattern and avoid a descending 225° turn to the 45.

The Mooney Flyer has always recommended that Mooney Pilots do the following in all traffic patterns:

1. Plan for some NORDO traffic. Never assume all aircraft are equipped with Comms, or that they are using them.
2. Keep your eyes on a swivel and expect traffic from any and all directions at all times.

3. Do NOT rely on accurate entries or even accurate reporting.
4. Always rely on "See and Avoid" from all directions and all altitudes

A Deeper look at the Midfield Entry

The Midfield Entry provides excellent forward visibility to all traffic on the runway, on the 45, downwind, base and final as well as departing traffic. We report 10 miles out, then 5 miles out and then as we are approaching the Midfield entry. If the pattern is busy, the easiest thing to do is orbit well outside the pattern until the pattern opens up. If the pattern is not too busy, then you are listening and looking from inside 10 miles and planning your entry. If you are 3 out and another aircraft is 3 out on the 45, then slow down and plan to follow that aircraft. If you are inside of the aircraft on the 45 and faster than him (say C-172/182 or equivalent Piper, etc.) then speed up a little and report that you will enter the pattern first. If there are more planes in the pattern, say someone on downwind and you cannot blend safely, then either slow down and be #3, orbit outside the pattern, or turn upwind/crosswind/downwind.

You have excellent visibility for departing traffic and traffic on base or final and should not lose site of them at all, as opposed to the 225^{o} entry. This makes us feel that the newly approved Midfield Entry makes a lot of sense.

Just remember that if you are entering on the traditional 45, to be aware of midfield entries from the other side. Again, if you have a visual on them and know their position, a simple speed up or slow down will enable a smooth blend into the pattern. Essentially, you are using the same decision making criteria as always, while orbiting or blending into the pattern, with the addition of traffic entering from a new position.

Other Legal Entries

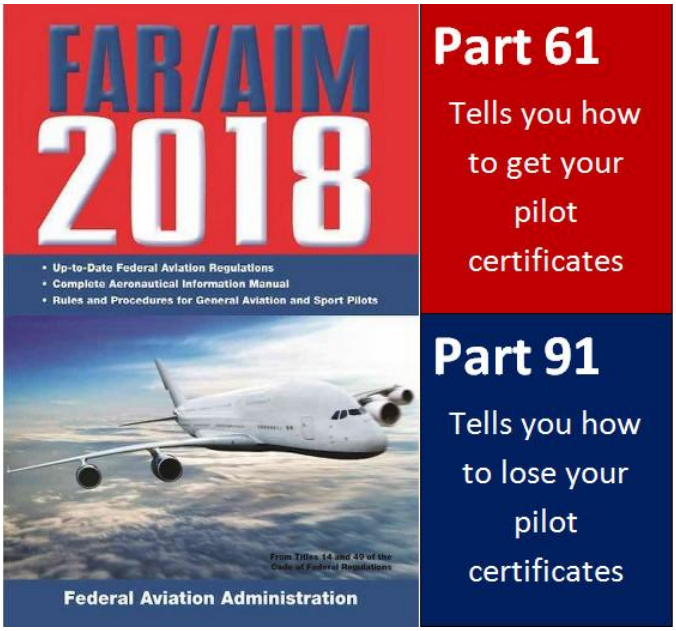
Despite the new Advisory Circular, remember that the only FAR guiding traffic patterns at uncontrolled fields is to honor right or left traffic and only make the corresponding turns in the pattern.

A Straight In approach really irks the vast majority of pilots, but is not prohibited by FARs. It is only the AIM and AC_90-66B that recommends entries. So a straight in is legit. I always check straight-ins before I turn base, and then again on base. I don't assert right of way and am satisfied to extend my downwind for a straight-in if necessary. Vice versa works also where the guy on final may let you turn base-to-final ahead of him.

The other legal pattern entry is an Overhead Break. Again, the aircraft flies down the runway at TPA and breaks about midfield and performs a 360^{o} descending turn and touches on the threshold. Military pilots utilize this entry sometimes. This one doesn't seem appropriate to us since visibility is blocked in the entire turn, but it is legit and if your head-is-on-a-swivel you should not be surprised.

Summary

All along you should have been prepared for NORDO aircraft, and therefore rely on See-and-Avoid for all patterns. You also should be prepared for bad position reporting, usually accompanied by questionable Comm technique, but not always. So this AC doesn't really change your pattern entries, but makes you aware that more pilots may be making Midfield Entries than before. But they were always legal, just not in the AIM or an AC. Safe and Fast Flying to all.



Part 61

Tells you how to get your pilot certificates

Part 91

Tells you how to lose your pilot certificates

MOONEY INTERNATIONAL CORPORATION **SERVICE BULLETIN**

Click **DL** to Download the Service Bulletin from Mooney.com Support

M22	M20	M20A	M20B	M20C	M20D
M20-314A 2012, 29 Feb DL **M20-313A** 2012, 29 Feb DL	**M20-318** 2014, June 2 DL **M20-314A** 2012, 29 Feb DL **M20-313A** 2012, 29 Feb DL	**M20-318** 2014, June 2 DL **M20-314A** 2012, 29 Feb DL **M20-313A** 2012, 29 Feb DL	**M20-318** 2014, June 2 DL **M20-314A** 2012, 29 Feb DL **M20-313A** 2012, 29 Feb DL	**M20-318** 2014, June 2 DL **M20-314A** 2012, 29 Feb DL **M20-313A** 2012, 29 Feb DL	**M20-318** 2014, June 2 DL **M20-314A** 2012, 29 Feb DL **M20-313A** 2012, 29 Feb DL

M20E	M20F	M20G	M20J	M20K	M20L
M20-318 2014, June 2 DL **M20-314A** 2012, 29 Feb DL **M20-313A** 2012, 29 Feb DL	**M20-318** 2014, June 2 DL **M20-314A** 2012, 29 Feb DL **M20-313A** 2012, 29 Feb DL	**M20-318** 2014, June 2 DL **M20-314A** 2012, 29 Feb DL **M20-313A** 2012, 29 Feb DL	**M20-325** 2016, Dec 14 DL **M20-318** 2014, June 2 DL **M20-314A** 2012, 29 Feb DL **M20-313A** 2012, 29 Feb DL	**M20-325** 2016, Dec 14 DL **M20-318** 2014, June 2 DL **M20-314A** 2012, 29 Feb DL **M20-313A** 2012, 29 Feb DL	**M20-325** 2016, Dec 14 DL **M20-318** 2014, June 2 DL **M20-314A** 2012, 29 Feb DL **M20-313A** 2012, 29 Feb DL

M20M	M20R	M20S	M20TN		
M20-324A 2017, May 26 DL **M20-325** 2016, Dec 14 DL **M20-321** 2016, Nov 1 DL	**M20-324A** 2017, May 26 DL **M20-327** 2017, Mar 22 DL **M20-326** 2017, Mar 6 DL	**M20-321** 2016, Nov 1 DL **M20-322** 2015, June 23 DL	**M20-324A** 2017, May 26 DL **M20-327** 2017, Mar 22 DL **M20-326** 2017, Mar 6 DL **M20-323** 2016, Mar 4 DL		

Send your questions for Tom to TheMooneyFlyer@gmail.com

Question: As a non-A&P who likes to participate in the annual inspection, I enjoy and appreciate your column in TMF. Your last column mentioned the landing gear pre-load checks. The pre-load values don't seem to change much from year to year on my electric gear C model, and trying to get the pre-loads set perfectly to mid-range causes more problems than just accepting readings that are within spec, even though they may be toward the high, or the low end of the range. Am I correct to surmise that if the pre-load is too low, there is a risk of the gear collapsing? What is the danger if the pre-load is too high?

Answer: For each model there is a preload range. For example, it maybe be 240 -280 inch lbs. If the preload measures within that range, all is good. If too low, there is the possibility of a gear collapse and most likely during a crosswind landing when there is a high side load on one gear. This will push that gear in if no preload, and bend that retract tube for the lowered gear, erasing all preload. Sometimes during landing, if no preload, the weight of the plane will hold the mains down, but when lowering the nose to the ground, the nose will go under, bending those retract tubes. That's when the mains usually fold under. I have seen a manual gear plane, while taxiing, have the gear handle come out of the uplock, slamming to the floor and folding under the nose gear. Preloads will change gradually from wear in the system, but most often a large change will be from maintenance on the system, like removing the actuator for repair or replacing worn rod ends. Another likely cause of losing the preload is a hard, uneven landing, like dropping on the nose gear, which likely bends the two nose retract rods, and then you would lose all preload with a probable gear collapse.

While it doesn't happen too often, there can be cases of too high a preload. The main problem with this condition is a heavy load on the gear actuator and motor, usually caused by the wrong adjustment. A heavy preload can also be caused by bearing failure, rusted or jammed rod ends, internal problems inside the gear actuator, and even problems with the manual gear "Johnson" bar pivot bearings or other "binding" in the mechanism. Retracting the manual gear was always a problem with some pilots with less arm strength. In the case of early models with the Dukes actuator, when gear doors were added by mod kits, the heavy airload on the doors caused an extra load on the gear motor, creating problems with retraction. When we modified 9171V into a J model, we installed a later model Avionics Products gear actuator to handle the extra load.

If you happen to be at your plane when they remove the gear actuator for maintenance, it is a good opportunity to get down and just push on a main gear to feel the load as the gear retracts, or to feel how easy all the gear move as one unit. Pretty neat system.

There is a big inventory of serviceable airframe parts, including wings for M20C, E, F, G, J, K & R models, empennage assemblies, fuselages, rebuilt controls, rudders, elevators, ailerons, flaps, cowls, engine mounts, landing gear and small parts.

Paul Loewen is offering them online, or by phone. The website is www.LoewensMooneySalvage.com , and he can be contacted in Lakeport, California at **707 263-0462** or by cell at **707 272-8638.** Email is PaulLoewen98@gmail.com. The used inventory is also still available through LASAR Parts at 707. 263-0581.

Spatial Interior for your vintage Mooney

Simple, quick and effective repair methods add new life to cracked and discolored plastics. Optional STC approved lower side panels add space and elegance. Installed without screws will please any mechanic.

For details, visit:

www.jaegeraviation.com

Jaeger Aviation

Email: bruce@jaegeraviation.com

320-444-3042


Mooney
M20F
N685IV
EAT
SLEEP
FLY
(C) FlyboyToys.com

HYH

PS ENGINEERING'S 'ULTIMATE' AUDIO PANEL

PS Engineering has introduced a new expanded-capability Audio Panel that features two independent Bluetooth inputs to enhance the utility of connected devices in the cockpit.

The 2nd Bluetooth module is the key to its capability, serving as an additional music input or to stream audio to another device such as a Bluetooth-enabled video camera.

"With our crisp OLED display and menu selections, it doesn't matter how much capability and performance, we stuff into this box, it can all be accessed and manipulated in a minimum of key strokes," said PS Engineering Vice President Gary Picou.

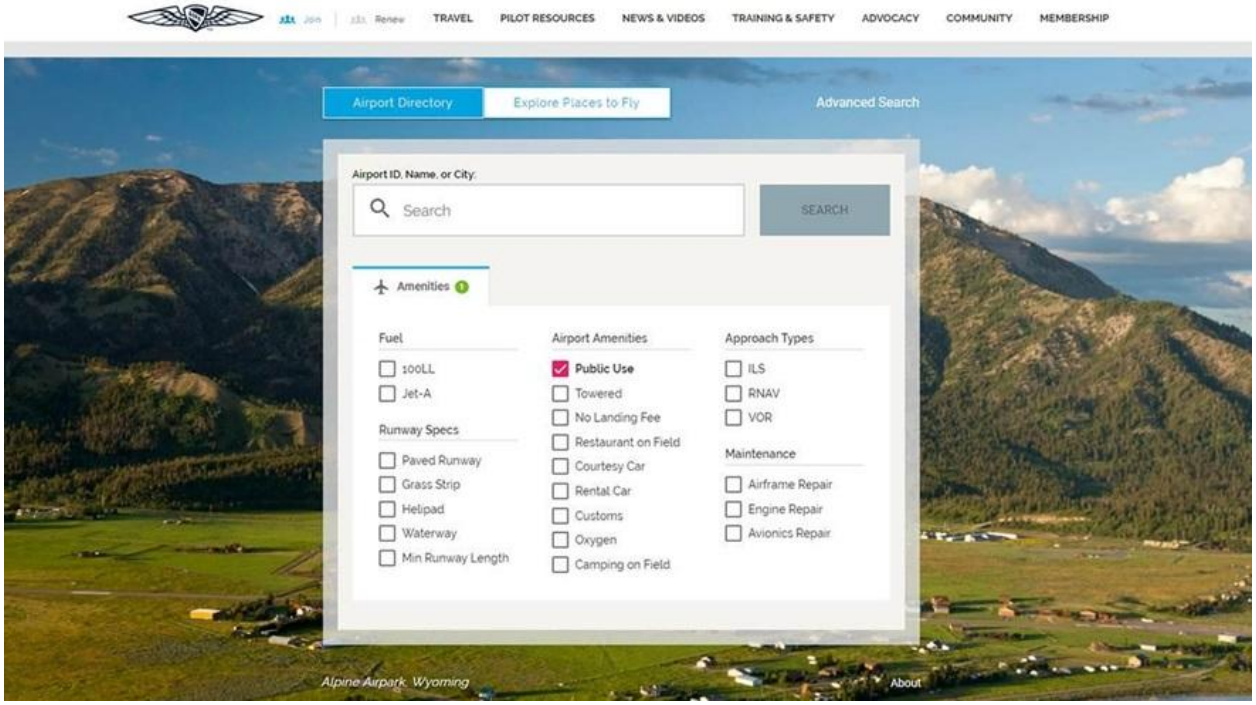
The PMA50B includes a marker beacon, and lists for $2,595. Other components of its "skill set" include a flightmate audio alert system; IntelliAudio true dimensional sound; a count-down/count-up timer; wireless and hard-wired phone interface; caller ID and device battery level; receiver monitor mode; Music 1, Music 2, BT1, BT2 independent music selection for pilot, co-pilot and passengers; 15-watt USB-c charger; independent music muting selection and volume controls for pilot, co-pilot, and passengers; and an "alternate intercom crew friendly mode."

"When we introduced the PS Streamer Module in 2016, we added audio output capability for video and audio recording," said Mark Scheuer, PS Engineering's founder and CEO. "Now we've added additional capability with a second Bluetooth input, which provides more utility for the connected devices that are omnipresent in the cockpit, like Electronic Flight Bags that provide important audio alerts. With the PMA450B, you can have your phone, your ForeFlight, and your music too."

Shipments of the PMA450B began in mid-April.

AOPA New Destinations Platform

AOPA aims to feed that need to explore, by providing more travel tools and ideas about new places to fly. Our goal is to get more pilots up in the air and out in the world, because aviation thrives when aircraft are flying and airports are busy.



Using the new directory, pilots can:

- Search for airports based on available amenities and nearby activities;
- View comprehensive airport details from the FAA as well as airport managers;
- Plan trips by activity—outdoors, amusement parks, fishing, museums, and more;
- Check nearby lodging availability and book rental cars;
- Save favorite airports;
- Download or print airport details and terminal procedures; and
- View maps, runway diagrams, sectional charts, and satellite views of the airport or destination.

CLICK TO READ MORE
Click Here to go to AOPA **Destinations**

ASA Long Tri-Fold Kneeboard updated

The elongated three-panel kneeboard accommodates aeronautical charts without additional folding.

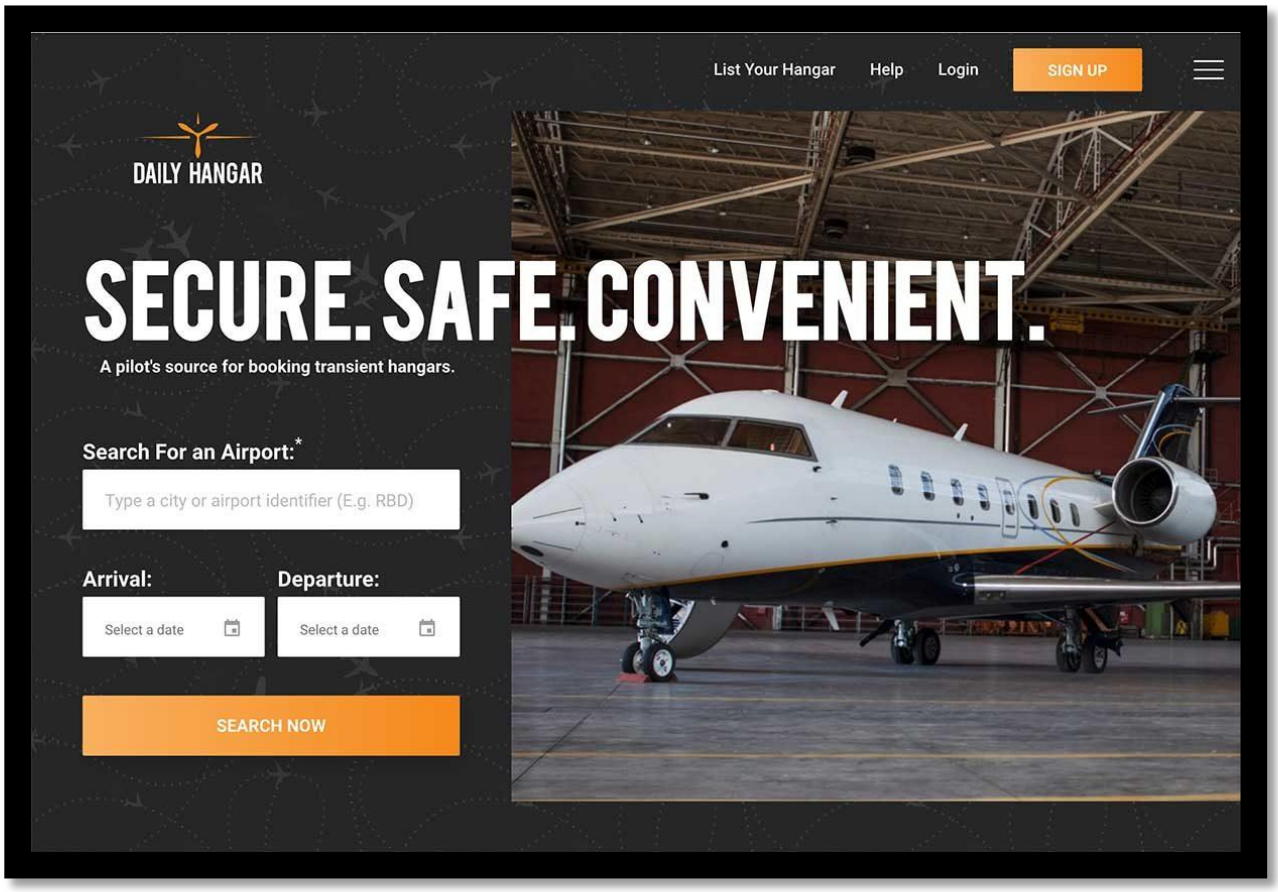
The center section of the three-panel cordura-like jacket holds the brushed aluminum kneeboard in place, while the two side pockets offer storage for charts, notes, a flight computer, pencil, pen and more.

Quick VFR reference information is tooled into the brushed aluminum kneeboard offering resources for weather and flight planning, VFR ceilings, visibility, cloud clearance, cruising altitudes, pilot weather reports, light gun signals and a crosswind component graph.
The left inside panel of the kneeboard jacket has two pockets for flight plans and notes, as well as elastic straps for holding a flight computer or other flight accessory.
The right hand panel has a see-through pocket for easy chart viewing and storage. Hook-and-loop fasteners on the elastic leg band allow the kneeboard to adjust to a variety of leg sizes.
Brushed aluminum with black print, 6-1/2" x 10-1/4" (flight computer and chart not included).
Price: $44.95.

DailyHangar.com will find a hangar for your plane when away from home

Protecting aircraft from weather is necessary for all sizes and types of planes. That is the driving force behind the launch of DailyHangar.com, a website that connects transient pilots with hangars for their planes.

The website can also be used by FBOs and corporate hangar owners to manage their hangar rentals.
"DailyHangar.com offers hangar owners the opportunity to make money renting out their underutilized hangar space, and pilots the opportunity to efficiently book a hangar space to protect their plane from the elements," said Mark Euwema, co-founder of Daily Hangar and general aviation pilot for the past 40 years. "DailyHangar.com offers FBO and corporate hangar owners an easy way to make their openings known to a broader community of pilots. It's a win-win for both parties."



Designed for the traveling pilot and the busy hangar owner, the website allows pilots, while traveling cross country, to find and book a hangar for the period of time they need it, according to Euwema. All you need is a destination and Daily Hangar will give you a list of available hangars in that area. Based on a location search, several options will populate allowing the pilot to filter through options for size, dates of stay, and amenities at the hangar to find the price and the location for their plane.

For hangar owners with space to spare, there is not a cost to list your hangar on the site. Hangar sizes, specifications and amenities are entered by hangar owners. There are no upfront or membership fees for the pilot or the hangar owner. A service fee is charged once the hangar is booked.

While there is no charge to list a hangar, DailyHangar.com charges the hangar owner 4% of the posted rental fee (which covers credit card fees) and the renter a 7% service fee.

“I want to change the mindset of the traveling pilot. There are more options than outside tie-downs,” said Euwema. “I believe there is a lot of underutilized hangar space at airports across the nation and DailyHangar.com is the solution that can connect both the hangar owner and pilot.”

Jeppesen + Bad Elf's "Wombat" = Avionics Updates

Now, you can update your avionics, while in the cockpit.

Using the Jeppesen Distribution manager (JDM) Mobile app paired with Bad Elf's Wombat accessory, Jeppesen subscribers can wirelessly download updates to their iPhone or iPad, insert the avionics data card into the Wombat and transfer the update.

The Wombat comes in two models: the **piston edition**, which is meant for GA piston and turboprop aircraft, and the turbine edition. **The piston edition is currently compatible with Garmin and Avidyne avionics, including legacy systems.**

Cost for the piston edition Wombat is **$249.99**—a Jeppesen subscription is necessary, but there are no annual fees beyond that. The Wombat can also be used to copy some types of flight data logs from avionics that support SD or USB media and recharge mobile devices.

The Wombat also functions as a backup power source. It has two USB ports for your iPad and iPhone.
It can fast-charge most iOS devices from empty to 100% in just a few hours.

Levil's 'BOM' Avionics Pod is now Available

This sensor suite includes built-in WAAS GPS, AHRS, ADS-B In and AOA in a streamlined unit that can be fitted to most any light GA aircraft.

The FAA last year approved the BOM avionics pod for installation on certified aircraft as a secondary source of flight data under the Non-Required Safety Enhancing Equipment (NORSEE) program. The unusual-looking pod attaches to the underside of a wing and broadcasts data to the cockpit wirelessly for use by iOS and Android tablet apps. The BOM's battery is charged by a slipstream-powered generator, so there are no wiring requirements. The unit automatically powers on and off by sensing the engine's vibration.

The pod includes a WAAS GPS sensor for position, AHRS for attitude, ADS-B In traffic and weather, angle-of-attack information, a pitot tube so it can derive wind speed and direction, and flight data logging.

Levil is now shipping the BOM to customers. Price with ADS-B "In" capability is about $2,000. Without ADS-B "In", the pod sells for about $1,600.

TKM Offers Drop-in KX155 Replacement

BendixKing's venerable KX155 remains a gold-plated standard for navcomms, but it's long overdue for replacement. At Sun 'n Fun 2018, TKM announced its MX155 digital navcomm, a pin-for-pin replacement for the KX155. Since it uses the existing tray, an owner can slide the radio into the mount in a few minutes.
The MX155 navcomm is designed to be mechanically and electrically interchangeable with both the KX155 and KX165. It's available in both 14 and 28-volt versions and has 8.33 kHz or 25 kHz channel spacing selectivity. The MX155 has been in development for three years and will be ready to ship in May. Price? About $4,000.

Starting in June, GA Pilots will Receive more FIS-B Weather Information.

In June, the FAA will begin broadcasting lightning strikes, turbulence, icing forecasts, cloud tops, AIRMETs and Center weather advisories over the FIS-B link.
The new weather information will complement the original 13 “baseline” weather products in the FIS-B feed that include Nexrad radar imagery, winds aloft and terminal forecasts. CLICK HERE for more information.

Pre-Order BendixKing’s AeroVue Touch

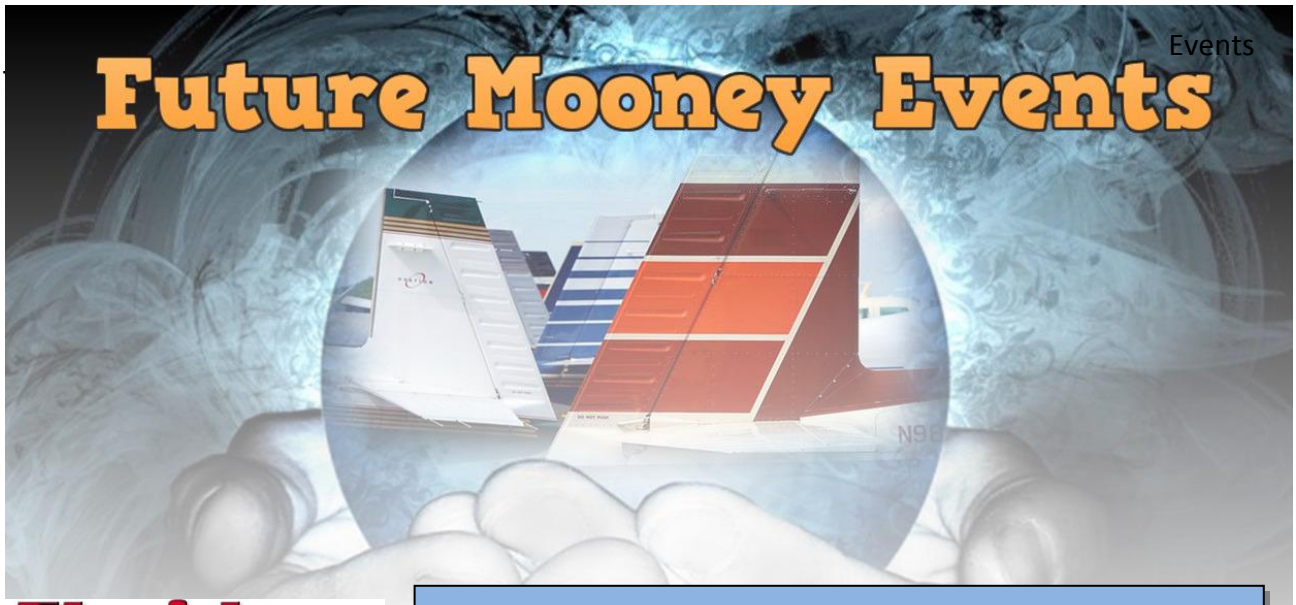
AeroVue Touch, the latest primary flight display from BendixKing, is now available for preorder with Supplemental Type Certification documents expected to be submitted to the FAA in July 2018. On the ground, pilots can update databases from the internet via cell phone, Wi-Fi or Bluetooth. Price: $12,590. **CLICK HERE** for more information

iFly GPS adds Synthetic Vision and 3-D Traffic Alerts

iFly GPS has added synthetic vision and a three-dimensional traffic alerter to its aviation app for Apple, Android and Windows. The tablet-based system is designed so "everything is just a couple of touches away," according to sales manager Brian Rutherford.

This upgrade allows users to now access 3-D terrain features, obstacles and airport environments as they relate to the sectional or IFR chart side of the screen. In addition, iFly GPS links via Bluetooth or Wi-Fi to ADS-B In, so it becomes a traffic alert as well. The next generation of iFly GPS will show N-number, speed, course and altitude of nearby traffic. A depiction of three-dimensional airspace structure is in the works.

Price for all this capability comes in at $69.99 per year for the VFR version, and $109.99 for the VFR/IFR product. You can learn more at www.iFlyGPS.com.



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

May 12: Fernandian Beach (KFHB) Lunch at Brett's Waterway Café with transportation provided
June 9: Sebring (KSEF)
July 14: Williston (X60)

MAPA Safety Foundation
MooneySafety.com Mooney Pilot Proficiency Program

- **Sep 6-9,** Manchester, NH (KMHT)
- **Oct 4-7,** Owensboro, KY (KOWB)

Mooney Caravan

July 21: Mooney Arrival at AirVenture 2018
CLICK HERE for details and to register

MAPA HomeComing - October 10-14: Kerrville, TX

Mooney Summit VI: **September 28-30**: Panama City, FL

TMF PRODUCT REVIEW

BOSE PROFLIGHT AVIATION HEADSET

We have always loved Active Noise Reduction headsets from Bose and Lightspeed. But at the same time, we have loved the comfort and lightweight headsets such as Clarity Aloft. Now Bose has announced a lightweight ANR headset and it looks awesome.

The ProFlight Headset weighs just 4.9 ounces, features an in-ear configuration, three user-selectable levels of active noise cancellation, and a Tap Control for Talk Through communication function that allows pilots to hear anyone on the flight deck who is not connected to the intercom — without removing the headset or an earpiece.

The ProFlight is FAA TSO C139a and EASA E/TSO C139a certified.

Features include:

- ✓ Electret Noise Cancelling Mic
- ✓ User Selectable Active Noise Cancellation to allow for variation in ambient aircraft noise
- ✓ Tap Control for Talk-Through Communication
- ✓ Bluetooth Connectivity and Prioritization

The ProFlight Aviation Headset will be available worldwide and sold in the U.S. for $995.95.

CLICK HERE for detailed info.


The Mooney Flyer
The Official Online Magazine
of the Mooney Community
Like us on
facebook
For the latest Mooney and Aviation News

1987 M20K FOR SALE

Specs are: 1987 M20K "252", 1445 TT Airframe and Engine; Location, Lakeport, CA; Complete Logs; Damage History, yes (in 1988, repaired by LASAR)
Avionics: KX165's Nav Coms;, KN64 DME; , KT76C Transponder; KFC150 Autopilot; KFC55A HSI; KR87 ADF; Apollo 2001 GPS; PMA 7000 audio panel; WX1000 Stormscope
Mooney Service Center maintained all its life. MAPA Best of Series Winner.
Price: $124,000/Offer
Call Paul & Shery Loewen at: 707 263-0462

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

For Sale: 1978 M20J

1978 Mooney N201TM
$130,000
Model M20J - 200HP FI Serial 24-0388
Lycoming IO-360-A3B6D

TTAF 4400
TTSMOH, SPOH, prop governor, "0" by Zephyr
New Hoses, oil cooler O/H, "0" magneto
Annual 2/18

Same owner 33 years, Mooney Service Center maintenance

AIRFRAME
No damage history. No corrosion. Always hangared.
Mooney brochure plane in 1978, panel "Those Incredible Moonies"
Electric Standby vacuum system & pump
Bladders, no leaks
Donuts, brakes, tires, good
New Plane Power Alternator
Concorde Battery
3 David Clarkes
Graphic engine monitor with fuel flow
Portable Oxygen, certified 2016
4 life vests
New seat belts and shoulder harness pilot/copilot
Electric gear & trim
Rosen visors
Grey leather interior & refurbished plastic

INSTRUMENTS
Garmin 430 WAAS
KNS 80 with second LOC/GS
Stratus ADS/B in, moving map, weather
IFR certified 3/16
KFC HSI
KFC 200 Flight director, coupled to Garmin 4300 3-axis, altitude hold
KY 197 COMM #2, flipflop
O/H electric DG 2016
BFG Stormscope
Davtron 811B clock, flight timer, stopwatch
4-Place Intercom + Music player
Electric Digital tach
JPI EGT CHT Fuel Flow

Contact: Claude "Sandy" Thomas
(770) 612-8221
mooney201@gmail.com

For Sale

Bendix/King KX-165 nav/com, 12V, with rack, $1600.
Electronics International SR8A4, 4 channel EGT/CHT, needs EGT probes, $200
Both working when removed from my M20J

Mark Leuzinger, SIAI260@gmail.com, 909-720-2702

Study any time at http://jdpricecfi.com/