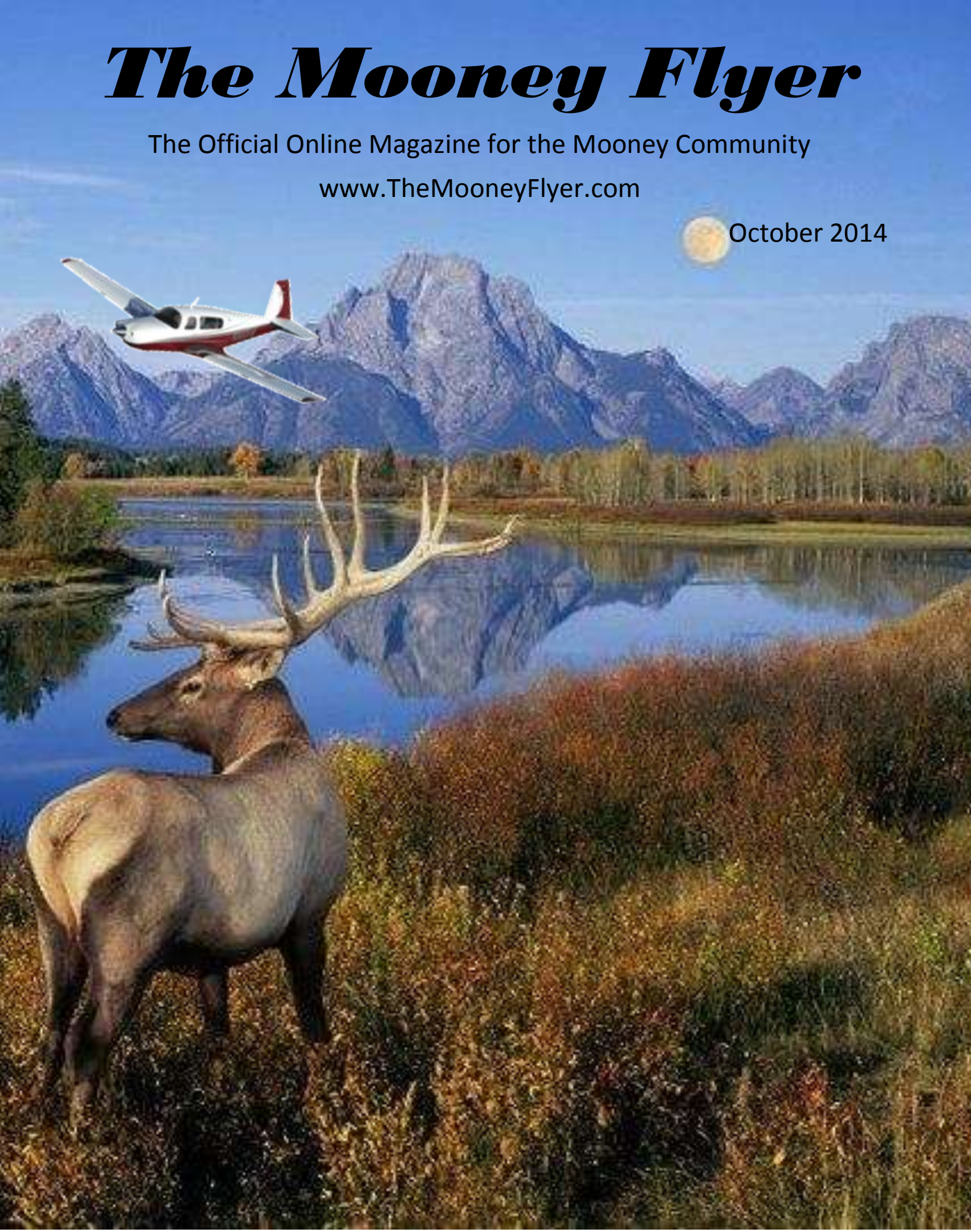
The Mooney Flyer

The Official Online Magazine for the Mooney Community

www.TheMooneyFlyer.com

October 2014



I ♥ TO FLY FAST

MOONEY FLYERS

Mens' and Ladies' Core Performance Dri-Tech Polos. Most sizes are a donation of $29.99

FREE SHIPPING in the Continental USA

Mens' and Ladies' Sport-Tek Cool Dri Tees. Most sizes are a donation of $23.99

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Brush Twill Hat, Donation of $19.99

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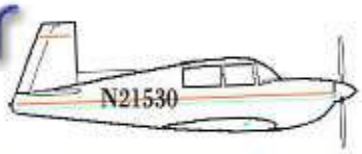
From the Editor

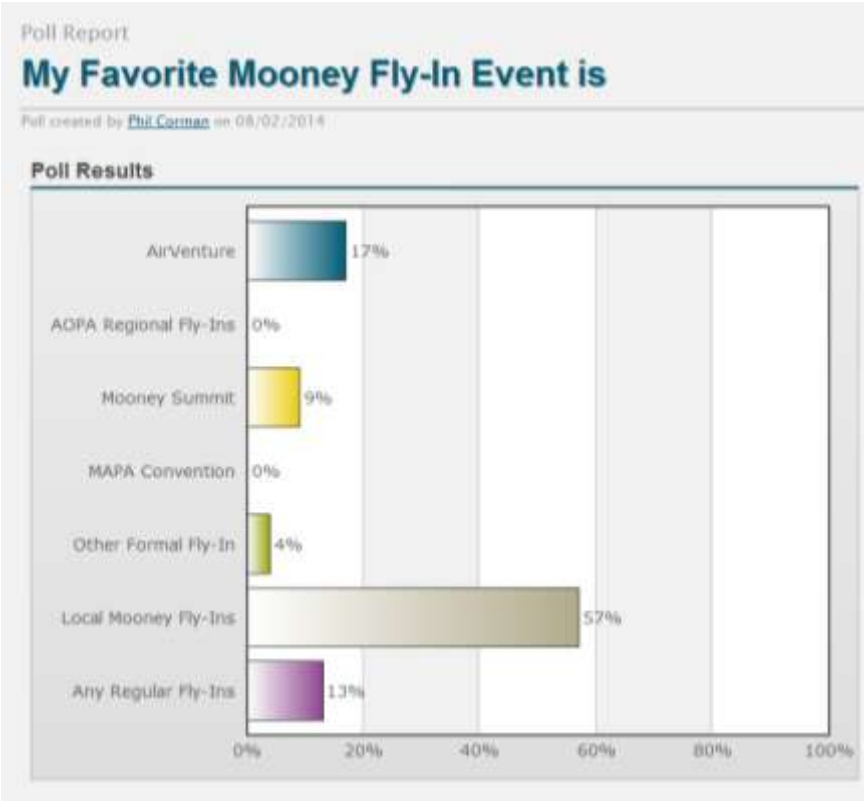
Phil Corman



Mooney International books a combination of 42 Acclaims & Ovations for a total of $30M.

Most of those recent orders came from two China-based companies: the Reignwood Aviation Group and Xinzhichen Trading Company Read more at http://www.flyingmag.com/aircraft/pistons/mooney-books-big-airplane-orders#C2BTewoqJUgJ9r0j.99. Here at The Mooney Flyer, we are pretty excited about a backlog of this size. We are very high on Mooney's prospects moving forward.

Last month's poll asked, **"What Is Your Favorite Mooney Event?"** It is no surprise that the overwhelming response was for Local Mooney Fly-Ins. After all, more people can participate. Over the past several years, we have found that most people will fly 1-1 ½ hours to a fly-in for one day and 3-4 hours for a weekend fly-in to a pretty/fun location.



Next month's poll: What is your Largest Maintenance Concern?

CLICK HERE to vote.

Mooney Flyer Apparel

Did you notice that you can now purchase *very cool* Mooney Flyer shirts & hats.

CLICK HERE to take a look.

Lake Aero Styling & Repair "LASAR"

PRESS RELEASE

September 25, 2014

The New Mooney International Factory has recently sent out renewed Mooney Service Center contracts for the coming years. LASAR and 34 other selected shops, nationwide, have been approved to conduct Mooney authorized service and parts sales. The Factory expects to include 15 more MSCs in the future. There are 8 international MSCs currently signed on.

In other news……LASAR just got a "GOLD MINE" of new surplus Mooney parts and avionics. We purchased $100K of airframe parts, gauges, strobes and lights, visors, seat belts, access doors, controls and accessories, turbochargers, engine mounts and engine parts.

Much of this inventory contains many hard to find replacement gauges, switches and switch covers, bulbs and lamps, placards, and flight instruments. There's even a pair of new shoe brakes for the very early Mooney and a lot of Porsche "stuff," including propellers and cowls.

The newly acquired treasures are in boxes that nearly cover our hangar floor, as we sort them and list them in our computer inventory.

If there's something you need, we probably have it, along with our other parts room shelves, full of Mooney related inventory. There will be big discounts on these new and used surplus Mooney parts, because we have a volume of each item. Call or e-mail us at 707 263-0412 or parts-mods@lasar.com.

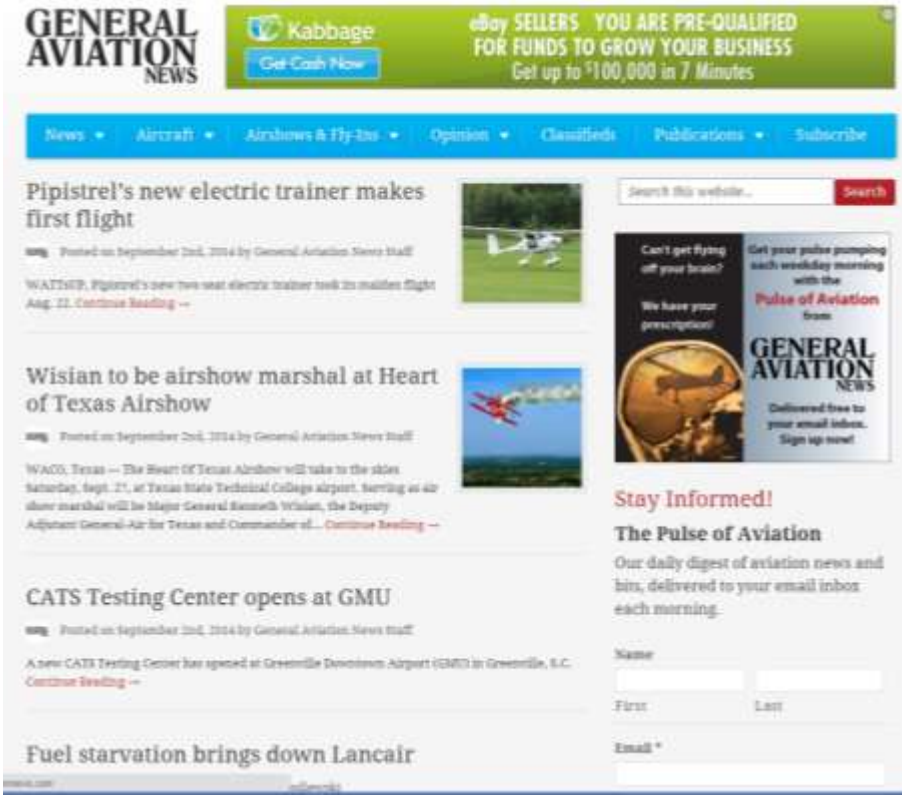
Appraise Your Mooney's Value

Don't forget about our cool new **Appraise your Mooney's Value** using Jimmy Garrision's valuation. Jimmy is from All American Aircraft, the country's largest Mooney reseller. We have implemented the models for M20C, M20E, M20G, M20F & M20J. Click on your model to simply complete the valuation. You no longer need paper and pencil. Just another benefit to our subscribers. These forms are currently Beta test quality. Please send errors to us.

M20C M20E M20G M20F M20J

General Aviation News

http://generalaviationnews.com/



One of our favorite Editors, Ben Sclair, produces this timely and informative newsletter focusing on General Aviation.

If you only have time to check one website for the latest, we heartily recommend General Aviation News.

His articles are always well-researched, accurate and timely. As you know, much of what is on the internet does not always bear the truth of time.

This is a first class online news source for GA.

With ADS-B IN, you will get FREE weather, NOTAMS, TFRs and TIS-B Traffic information.

I got my 1978 J model in 2013. As I waited for the line guy at the fuel pump to finish up, I noticed just after he put the fuel hose away, he reached in his pocket and pulled out a wooden stick and dipped it in each tank. That got my curiosity up so I walked over and asked about this stick. The stick was a 12 inch 1/4 round oak dowel with numbers at different points, each one with a fuel number on it. I copied it and have used it since. I have checked these numbers in a variety of ways (including completely emptying the tanks after repairs and adding fuel a little at a time, etc.). It's quite accurate and very useful.

The FAA has a great program called Wings. This program is a great way to stay current and take care of the BFI. You can use any instructor and take over a year to complete each phase. I think it's a much better way than a one hour flight every two years. I would like to encourage all flight instructors to take a look at this program. There is little to no paper work and very easy to understand for both the instructor and student.
Believe it or not, the web site is darn good. And, no, I am not with the FAA. It's just when I see something that can make flying and aviation safer (with 52 years of flying) I like to pass it along.
Mike M

I read your article about proper radio techniques in the latest edition of the Mooney Flyer. Great article!!!! My flight instructor is a big proponent of proper radio technique. He wrote an article a while back for MAPA about the very subject. He says that there is way too much chatter and I agree. I am a "minimalist" and speak just enough to get the request or point across the airways. In Texas, and I am sure it is quite the same in California, there are so many uncontrolled airports that I don't really need to know that a guy is taxiing for fuel at an airport 75 miles away. But, this is what you hear as you are well aware. I think folks forget that the chatter ties up that one frequency and no one else can use it.

I am sad to say that I hear it with my Mooney brethren. When we have a fly-in, usually at an uncontrolled field, they announce every last little thing they are doing. I am surprised you don't hear them say that they are walking out to their airplane. ☺
So thanks very much for the article and I enjoyed reading it.
Greg E

I really enjoy the magazine. One comment on radio technique. I fly out of a rural, non towered GA airport, EKO. I may be guilty of over communicating while on the ground and your article pointed that out. But, on the flip side, I like to establish the fact that my Comm radio is really functional, so I often think of it as a radio check. It is possible around here to fly for an hour and not talk to anyone on CTAF. Keep up the good work.
Randy

FACT NO. 789

Thomas Fitzpatrick had two passions: drinking and flying planes. On September 30, 1956, on a bet after a night of drinking, Fitzpatrick stole a small plane from New Jersey and landed it on an extremely narrow Manhattan street, in the dark, in front of the bar he had been drinking at on St. Nicholas Avenue. Then, two years later, he did it again. In this latter police report, it was noted he said he had to do it again because a man at the bar openly doubted he really did it the first time.

There have been a few accidents recently that may have been due to oxygen deficiency and or heat. I thought I should write a little about both. The most important things I'll stress are the facts about how they affect pilots, how to determine the onset, and actions you can take to alleviate the conditions. The effects of both heat and oxygen deficiency can be insidious, but we will make a case that if you are paying attention to your body's signals, you can detect and address both conditions in flight before you have a mishap. Some pilots may not be able to detect any symptoms, so avoidance is the best option.

Heat

Heat is much more dangerous than simply a discomfort. Often, the first thing that will be affected is your cognitive functioning. Heat can cause your brain to become fuzzy and more prone to errors. This is not a good thing in the cockpit. Normally, your body functions best between a narrow range of 98.6^{o} and 100^{o}F. Even slightly above this temperature range can cause a decline in decision making, error recognition, one's ability to take corrective actions. In the summer, airport ramps are notoriously hot in most locations. Remember that the ramp will be significantly hotter than the ambient temperature reported on ATIS or ASOS. Pay attention. Airplane cockpits seem to be magnets for the collection of heat. In most cases, the pilot has become overheated before entering the cockpit. After conducting a pre-flight, taxiing, run-up, and departure, the PIC remains hot (and dry).

Heat starts with ambient temperature, is amplified by the radiant heat of the ramp, and amplified again by the greenhouse effect of our cockpit windows. If the air is dryer, you will cool down slightly better than you would in a high humidity environment due to better skin evaporation. Some of the onset symptoms due to heat are headache, drowsiness, errors and slow reactions.

Steps to Address Heat

The first step you can take is to provide sun shades for all of your cockpit windows. Reflective sun shades can keep a cockpit significantly cooler. A more extreme step could be to include a battery-operated cooler in your cockpit.

Physiologically, you can do the following for yourself. Drink plenty of fluids before the flight (This is counter to many pilots who want to vacate their bladders before a long flight). Wear loose fitting cotton clothing when able. Cotton will help in three ways: 1) It has good thermal conductivity. 2) It has a superior evaporative capability. 3) It wicks, which enhances evaporation and cooling.

What you eat can increase or reduce the effects of heat on your body. Eating meat = heat. It has 2-3 times more thermic effect than if you ate fats and carbs. Salads, fruits and nuts are good foods to eat before flying in extreme heat. Lastly, bring a rag and water and keep yourself cool with a damp cloth.

Dehydration

Pilots can be especially prone to dehydration because we fly where it is dry. Sometimes, we exacerbate the problem, by not drinking any fluids before a long flight. Who wants to set down simply to go the restroom, or to utilize Sporty's portable pee pot?

Many pilots also want to get an early morning start, especially in the high and dry western USA. We sometimes forget that the human body is typically already dehydrated after a good night's sleep. Most people need water to hydrate after waking up.

Dehydration increases fatigue, which slows our ability to make decisions. The higher we fly, the drier the air, which increases the wicking effect on the skin, exacerbating dehydration. Heat amplifies the effects of dehydration.

Steps to Address Dehydration

Water is the best antidote, or prevention, for dehydration. Coffee (a diuretic) and many "energy drinks", and sodas can inhibit the absorption of water. Plain, clean and cool water is the best solution. Drink before a flight, especially in the morning, or before a hot ambient temperature flight, and bring a bottle of water in the cockpit.

Hypoxia

Hypoxia is a condition where low amounts of oxygen in the body's tissues can quickly lead to organ damage, loss of consciousness and ultimately death. According to the Alaska Air Medical Escort Training Manual, there are four stages of hypoxia. In the first stage, symptoms generally include the loss of night vision or color vision, euphoria, blue fingernails and/or lips, headache, drowsiness or decreased judgment. In the second stage, the body may increase its rate of ventilation and cardiac output in order to hold back further progression of the condition.

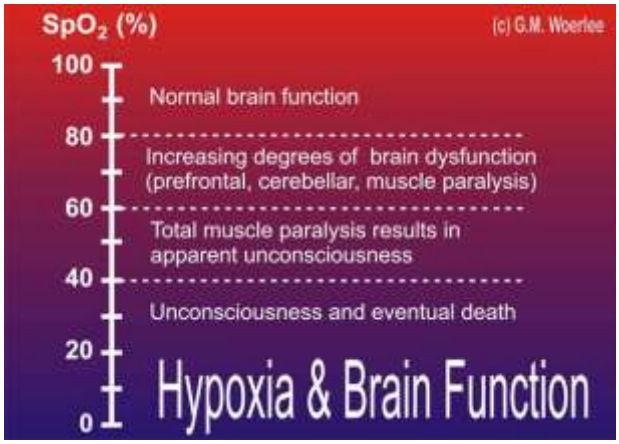
In the third stage, the body loses its ability to stave off symptoms, and a person may experience shortness of breath, headache, numbness, coordination problems and poor judgment. In the fourth and last stage of hypoxia, a person loses consciousness, experiences convulsions and ultimately stops breathing. Hypoxia is caused by lower air pressure, which makes it more difficult for your to take in the available oxygen. The FARs are precise on the requirements for oxygen to the pilot and passengers (See box to the right). But, the truth is that the effects of hypoxia can begin at lower altitudes due to many physiological variations in each of us. Age, fatigue, smoking, poorer health, lower blood oxygen levels,night flying, and other factors can create the need for supplemental oxygen at lower altitudes. Some pilots and/or passengers utilize supplemental oxygen beginning at 7,500. Many pilots and passengers feel more refreshed after a flight with some supplemental oxygen. This means that the pilot was probably flying more alert and was less fatigued as well.

Sec. 91.211
Supplemental oxygen

(a) General. No person may operate a civil aircraft of U.S. registry--
(1) At cabin pressure altitudes above 12,500 feet (MSL) up to and including 14,000 feet (MSL) unless the required minimum flight crew is provided with and uses supplemental oxygen for that part of the flight at those altitudes that is of more than 30 minutes duration;
(2) At cabin pressure altitudes above 14,000 feet (MSL) unless the required minimum flight crew is provided with and uses supplemental oxygen during the entire flight time at those altitudes; and
(3) At cabin pressure altitudes above 15,000 feet (MSL) unless each occupant of the aircraft is provided with supplemental oxygen.

For many people, the symptoms may not be obvious, or missed, until too late. Symptoms include slowed decision making, blurred vision, errors, slurred speech, and others. Some pilots have described it as similar to getting a buzz from alcohol.

Steps to Address Hypoxia



The best step to take is prevention. Pulse Oximeters are readily available and not terribly costly. Invest in a Pulse Oximeter and measure your SpO_2 level while at home. This tells you your blood oxygen level in your normal environment. When you are flying, use supplemental oxygen to maintain that SpO_2 level. It's a simple as that.

If you don't manage your blood oxygen level, then the only advice we have is to fly in a pressurized cabin or fly at lower altitudes and remain vigilant for any symptoms. If your copilot notices any change in your behavior, then go to a lower altitude.

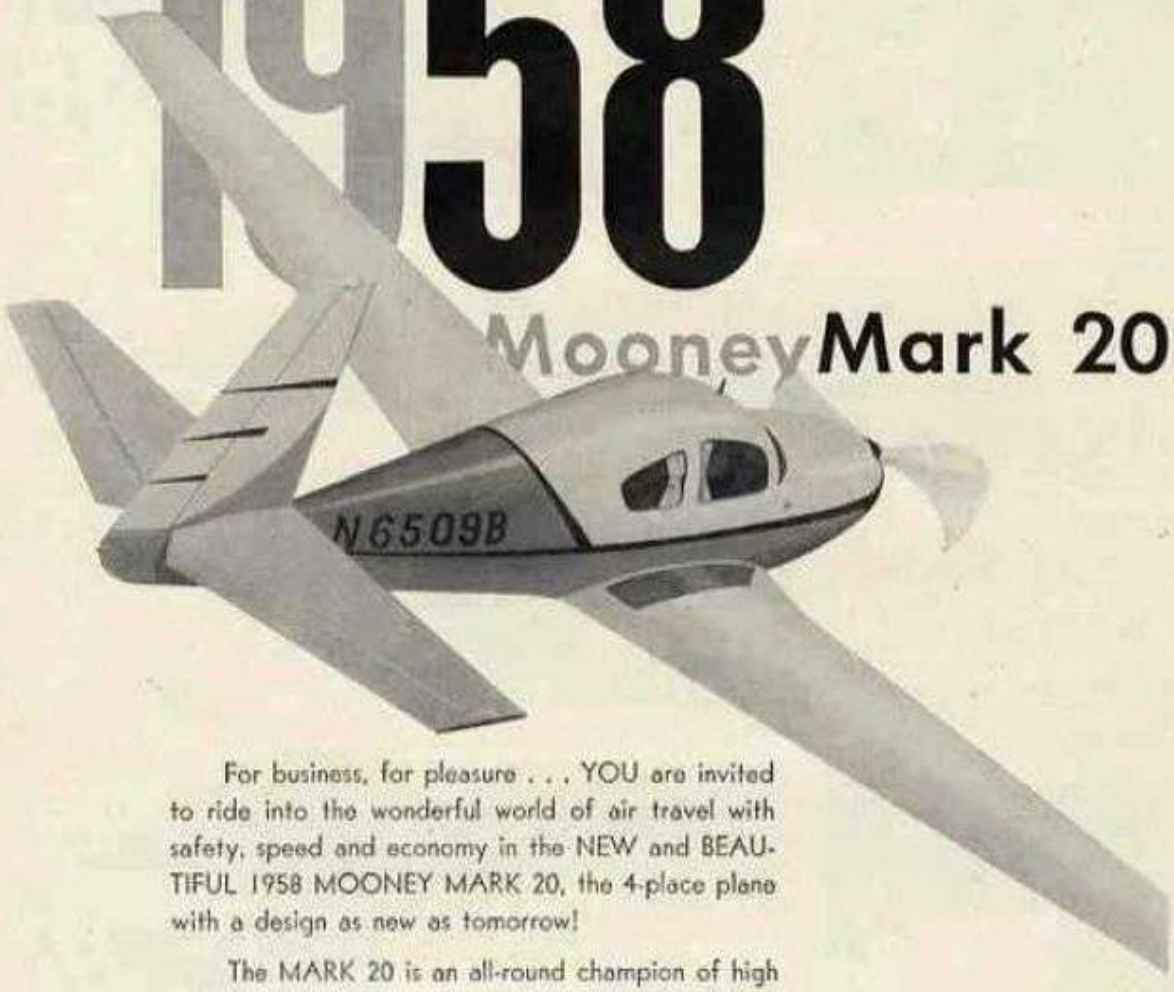
Final Word

If you experience, or even think you are experiencing, any effects from heat, dehydration or hypoxia, then remember this: Aviate Aviate Aviate! Cool off, hydrate, use oxygen or immediately descend to a lower altitude. If you are on an IFR flight, then please "Declare an Emergency" so that you can rapidly descend. If you feel an imminent loss of control, setup your autopilot to descend for you.

You don't need to have 1090Mhz Extended Squitter to be compliant with 2020 mandate unless you fly at or above 18,000' or travel outside the USA

ride into the wonderful world of air travel....

1958 Mooney Mark 20



For business, for pleasure . . . YOU are invited to ride into the wonderful world of air travel with safety, speed and economy in the NEW and BEAUTIFUL 1958 MOONEY MARK 20, the 4-place plane with a design as new as tomorrow!

The MARK 20 is an all-round champion of high performance at low cost. You'll want to see the **new** 1958 Mark 20 at your distributor NOW. See the new and advanced features and prepare to be thrilled by the sparkling fresh styling.

see it now . . .

The 1958 Mooney Mark 20

MOONEY AIRCRAFT, INC. • Kerrville, Texas

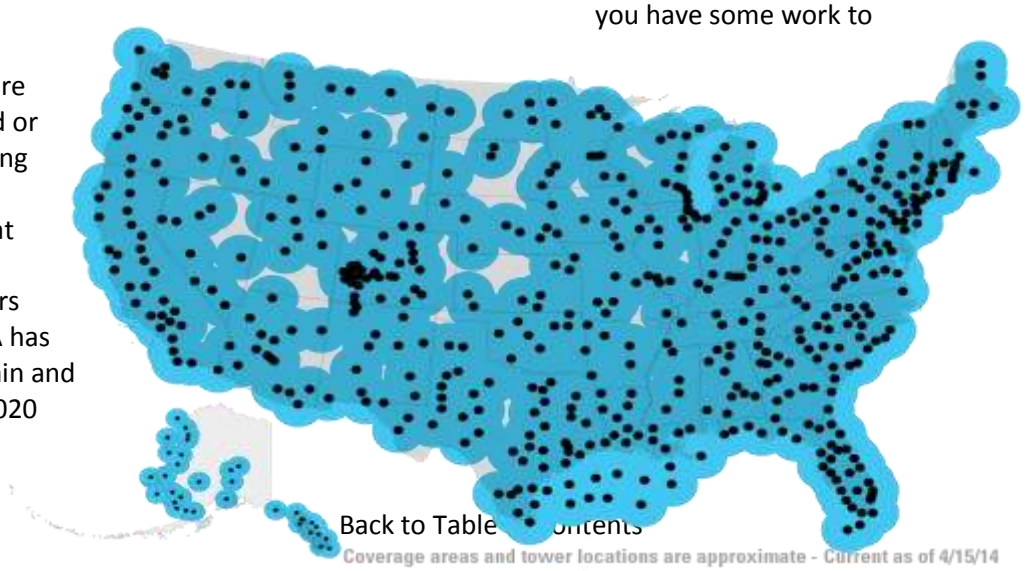
The Mooney's cabin is 43 inches across—about an inch wider than a Baron or Bonanza's comparable dimension.

ADS-B – It's Time

JIM PRICE ATP, CFI-I, MEI

When is the last time you flew commercially and went through airport security? Avoiding airline hassles and security is one of the many reasons we own our aircraft. Flying is soooooooooooo convenient and fun!

To keep the thrill and convenience of flying in your life after the ADS-B mandate kicks in on January 1st, 2020, you have some work to do and money to spend. If you're hoping that the FAA will amend or delay the mandate, you are living in a fantasy world. FAA Administrator Huerta notes that the ground infrastructure is in place with all 794 ground towers working as advertised. The FAA has kept its end of the ADS-B bargain and Huerta is not budging on the 2020 mandate.

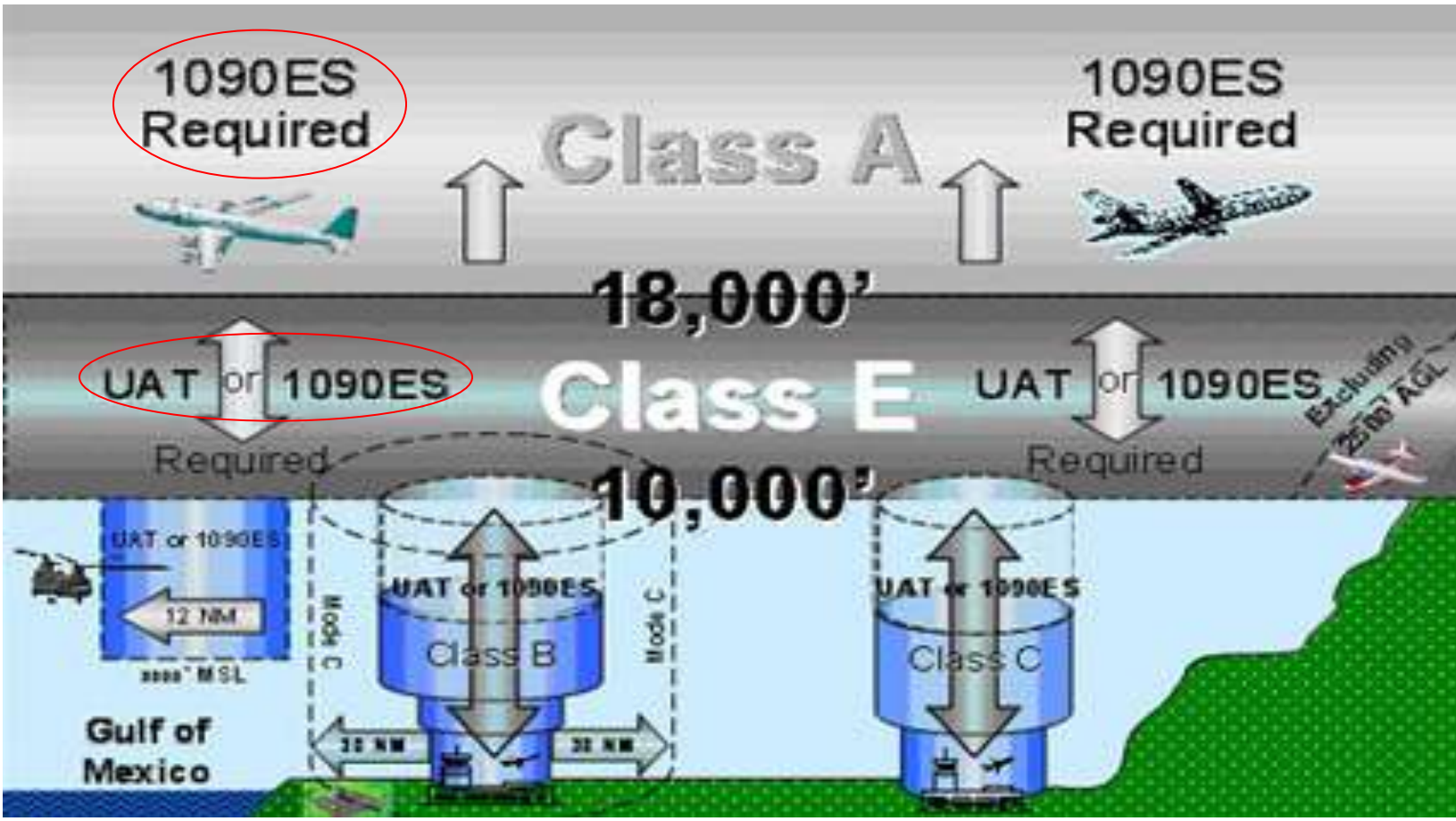


198,000 Procrastinating Owners

As of August 2014, there were 200,000 aircraft in the United States that needed to meet the mandate, but only 2,000 of those had installed ADS-B equipment. If you think you can wait until December of 2019 to install, think again. Lots of procrastinators will descend on the Avionics shops and you'll be put in a very long line for ADS-B service.

Prices for ADS-b equipment have recently decreased, but you can expect Avionics shop rates to increase as we near the mandate.

In 2020, if you want to fly in airspace that currently requires that you operate a transponder, you must be ADS-B Out compliant.



For ADS-B Out, Two Things are Mandatory:

1). You'll need to WAAS Up!

You must have a WAAS GPS position source. That means that you'll need either:

- A panel mounted WAAS GPS (like a GNS 430, GNS 530, GTN 650, GTN750), **or**
- A Universal Access Transceiver (UAT) with WAAS inside, **or**
- A WAAS Sensor (like the FreeFlight 1201 Sensor)

2). You'll need an ADS-B Transmitter.

That's something that will transmit your WAAS GPS position to the ADS-B tower and the Air Traffic Controller. Transmitters can be either:

- An Extended Squitter Mode S Transponder, or
- A Universal Access Transceiver (UAT)

WAAS GSP Examples

The Garmin GTN 750 ($14,500 plus install)

The Garmin GTN 650 ($9,800 plus install)

The FreeFlight 1201 WAAS GPS Sensor provides a cost effective way to add GPS to your aircraft. You will not have a panel mounted map screen, but you will have a WAAS source for an ADS-B Out transmitter. ($2,900 plus install)

If you do not have a panel mounted WAAS GPS or a WAAS Sensor, you can opt for installing a UAT with WAAS inside.

Garmin's GDL 88 (UAT) with WAAS ($4,700 plus install). If you have a panel mounted WAAS GPS, you won't need the WAAS model ($1,000 less). This will also provide the ADS-B IN stuff like weather and traffic on the WAAS GPS screen.

NavWorx's ADS600-BG UAT with WAAS ($3,500 plus install). On April 1, 2016, the price, according to NavWorx, will drop to $2,900.

If you have a panel mounted WAAS GPS or WAAS Sensor, you can install an Extended Squitter (ES) Transponder

The **Garmin GTX 330ES** ($4,200 plus install). If you already have a GTX 330, you can send it to Garmin. They'll upgrade your transponder to ES for about $1,500.

The **Honeywell/Bendix King KT74** ($2,650 plus install).

If you plan to fly in Class A airspace, or travel internationally, you'll need the International Standard for ADS-B Out, **the Extended Squitter Transponder**. A UAT will work just fine in the United States and below FL180.

Still confused?

Consult with your favorite Avionics shop and work out a plan that's within your budget and an ADS-B system that will match the type of flying that you want to do after 2020.

The FAA Test

After you have ADS-B installed in your aircraft, send an email to:

9-awa-afs-300-adsb-avionicscheck@faa.gov

Include your N Number, type and model of ADS-B transmitter (ES transponder or UAT) & GPS make/model number(s). They will reply with a report with "good to go", or "not ready yet, sport." Note, it took me three trips to the Avionics shop before we got it right. A few days before my third visit, Garmin issued an ADS-B fix letter to the dealers with the procedures necessary to satisfy the FAA.

Conclusion

There are only 63 months remaining before January 1st, 2020. That seems like a long time, but with the number of aircraft that will be competing for shop time, it's going to be difficult in 2019 for those who procrastinated. Please, don't put it off. Find out what you will need and how much it will cost you. Have an installation plan ready and start saving for it. You can thank me later.

Mode C or Mode S will still be required after 2020 where current FAR requires

Geoff Lee.
CFI

ANXIETY

It is noticeable to me that some of my clients, who are past middle age, have varying degrees of anxiety associated with piloting an aircraft in flight. Their discomfort centers primarily around the machine itself and, to a lesser degree, their own capability to deal with some mechanical or engine failures. The majority of these pilots are not particularly mechanically inclined. With that uneasy feeling of "what if the engine quits", (*which is normal and healthy to some extent*), they overly concern themselves with everything from questioning general aircraft vibration and small oil drips from the crankcase breather outlet, (noticed on preflight), to basic flying ability. These pilots are competent, some with several thousand hours of flight time; a couple of retired airline pilots to be included. They all own their own aircraft and can afford to have their aircraft adequately maintained. (*This is a general concern of mine when flying in aircraft other than my own).*

I have realized that my own caution level, relative to aviation, has increased noticeably with my age. I dismiss this as being associated with a broader mental development. (*I keep myself calm and confident with this thought*). There was a time when I would climb into anything that even *looked* like it might get airborne. This was the age when I knew that I could not possibly be exterminated in an aircraft. An increase in age and various aviation "experiences" modified that conviction.

Upon first flight with a student or any pilot, an instructor will or should notice any level of tension or anxiety projected by that pilot and strive to calm or allay the anxiety or mental discomfort. Determining the cause of the tension is the first step. S*ometimes it is the instructor. Not too many of us care to be scrutinized when performing a meaningful task. That type of discomfort should be easy to resolve. Talk through it or get a more compatible instructor*.

With the older, more experienced pilot, anxious discomfort is generally not immediately apparent and only reveals itself during casual conversation, once a level of rapport has been established. The conversation takes the form of a confessional in some cases. That's because *pilots are necessarily a little macho and are reluctant to relay or exhibit any level of fear or anxiety*.

The concern regarding catastrophic engine failure is endemic to single engine flight. It manifests itself to most of us over the water with no land in sight, over mountains and during night flight. Having different

levels of intensity related to each individual. Some pilots have a suppressed anxiety over any terrain that's not completely flat or level, even in daylight. That little worm in your tummy is a good thing. It produces Adrenaline which heightens the senses keeping your eyes and ears keen and your reflexes sharp. However, if the worm is allowed to become too large it can produce enough adrenaline to inhibit your thought processes and your physical actions. You need to be able to control its growth. Knowing what to do if failure happens is step number one.

Over the years, having been exposed to my fair share of engine and general mechanical failures in various aircraft, I have learned that very often, well before the event, most mechanical failures are preceded by some indication. I shall exclude electronic equipment failures from the group. **Sudden catastrophic engine failure or stoppage is actually a rare occurrence** in modern times, with the exception of stoppage due to fuel starvation. When those little vibrations make their way to the forefront of the senses, an engine analyzer is a super device for reassuring the pilot that the magneto/plug and fuel system are all functioning normally. *Of course you need to read the operating manual and understand the indications on the analyzer!*

The pilot must be knowledgeable enough regarding his craft and engine instrumentation to be able to understand and heed the small signs and take appropriate action. Minimal excuse can be offered for fuel or oil starvation. A normal preflight and easy cockpit observation of quantity and pressure gauges in flight should obviate both of the foregoing.

Out of gas: You quietly descend at best glide speed while looking for a place to land. **Out of oil** (*no pressure*) you may be able to get it down with some power if you react promptly. (*Make a decision to land at the first sign of oil pressure fluctuation or reduction*). **Loss of fuel pressure**: With an adequate supply evident, the PIC should pay prompt attention to the fuel tank selector and or the electric boost pump in case of engine pump failure. An immediate decision is called for. A gradual reduction in RPMs or Manifold Pressure would imply some kind of induction airflow obstruction like ice, prompting the use of carb heat or alternate air. A rough running engine should prompt some focus on that engine analyzer and or a mag – switching to determine which mag is best.

After a safe landing, it is useful to know which mag services which plugs, plus how the cylinders are numbered. If the landing was not safe , you will probably have minimal interest.

There are myriad other causes for anxiety when airborne, such as broken throttle or mixture cables (*usually on vernier type).* If the throttle cable detaches, just use the ignition key to turn power off and control your descent. A Mooney blessing is that our flight controls are not cable actuated.

Confidence in ones' ability to make an "engine out", short field or off airport landing will immensely reduce the anxiety of an engine failure. The off airport landing involves the most decision making. Should you land gear up or down, etc.? Land on or between trees, not into 'em? If you *must* hit a building aim for a window!

Over water, land parallel to the swells or on the backside of them and not into the swell; keeping your gear and flaps up. On a beach, land in the dark sand area at water's edge. It is the hard packed sand location and will minimize ending up with shiny side down. The short field, "engine out" landing can be readily practiced at the home airport and "tuned up" to a good level of skill and confidence. A prime mindset to establish once an off airport landing is inevitable is **not to concern yourself regarding saving the aircraft. Concern yourself with saving your personal tail not that of the aircraft.** (T*his posture will simplify that "gear up /gear down" decision*). If you have time,Transponder 7700 and radio 121.5. Report your position and condition. Mags, master switch and fuel selector off, releasing the door latch prior to touchdown. Quoting Bob Hoover, "Fly as far into the crash as you can"

When on the ground, think though the variations of an engine failure event, particularly as related to the terrain features associated with any upcoming cross country trip. Have an escape plan for mechanical failure as well as weather. Do the "what ifs".

Planning the safest route and altitude of the flight can minimize anxiety. Carefully choose a route and altitude that will keep the craft within gliding distance of an airport or landfall, should the engine stop. Having a good idea of the glide range capability relative to the altitude of your aircraft does much to keep you calm if you plan your route carefully and **always have an escape route in your head,** (*nearest airport, road, turn right or turn left etc*.)

In these days of GPS direct routing and expensive fuel, pilots tend to disregard or forget the old adage of "fly a route from airport to airport". In California particularly, there are so many airports available, covering almost any route up, down and across the state, that any deviation necessary to plan a safe route would have a minimal effect on trip time. Certainly, when crossing states like Nevada and Arizona, Texas, etc., altitude should be considered carefully when planning the safest route relative to landing sites. Don't forget the roads. When overflying mountainous areas, choose the route and altitude that provides the maximum space between the underside of your plane and the hard ground. Always turn immediately away from rising terrain in the event of engine difficulties.

US Low airways (*Victor airways*) are 8 nm in width and extend from 1,200ft above the surface to 18,000ft and are normally positioned so as to provide the optimum path across mountain ranges with relation to the highest elevation points. Also, most main roads take the lowest path across mountain ranges. Positioning your aircraft over a road when flying above forest or mountainous terrain, minimizes the decision making in the event of engine failure. That road is a far better place to put it down than in the trees or on the mountain side while religiously adhering to a GPS straight line route.

Above all, keep the shiny side up, keep calm and carry on.

Trim for Landing – Plan to Go-Around

JIM PRICE ATP, CFII, MEI

Mooney landing techniques are as numerous, it seems, as the number of Mooney pilots on the planet. Some swear that their landing method is best; the only way to land a Mooney. What is a pilot to do? Go-around techniques also abound.

Knowing what to do during a go-around is necessary. Being prepared to do so is mandatory! Going around can be a rare event for many. But when the need to do a go-around occurs, pilots can become a little flustered; even startled. Because of that, it's hard to remember the steps one should do.

- Should I apply full or partial power?
- Should I retract the gear, or flaps first?
- When I eventually retract the flaps, should I stop at the takeoff flaps setting first and gain airspeed, or retract them all the way to full up?

Knowing what to do during a go-around is necessary.

Being prepared to do so is mandatory!

One of the tricky things about performing a go-around is that the aircraft is trimmed for landing — not for a go-around. Pilots who fly 180 HP Mooneys can usually overpower the pitch-up tendency when full power is applied. If you're flying a high performance Mooney, its packing more muscle, and the pilot will likewise need more strength to keep the nose from getting too high until the trim can be adjusted to a more comfortable setting.

The M20C POH does not offer any go-around guidance. However, the M20K POH offers a go-around procedure. Preceding this go-around procedure is the following interesting note:

"The force required to control the aircraft's pitch [to keep the nose from raising dangerously high] will rapidly increase when full power is applied and flaps are fully retracted. Trim nose down to lessen the pressure required to maintain aircraft control."

Go-Around Procedure (M20K)

Power …….. FULL
Carb Heat, (if so equipped) ..…... COLD
Mixture …… RICH
Flaps …….. TAKEOFF position after a climb has been established.
Trim ……..…. NOSE DOWN (Reduces elevator control forces).
Gear …… RETRACT – after accelerating to a safe and comfortable airspeed. (This is usually the airspeed at which you normally would retract the landing gear after takeoff).
Flaps …….. RETRACT (Retract the flaps from the takeoff setting to full up).

In summary, you will need to multitask – changing your Power, Attitude, and Configuration – all at the same time!

Sadly, the NTSB cites the probable cause of many Mooney go-around accidents as, "The pilot failed to maintain control of the aircraft during a go-around." The pilot either:

- Failed to add right rudder for the torque and P-Factor,
- Failed to control the aircraft's desire to pitch up. The aircraft flew the pilot. Not good!
- Failed to configure the aircraft properly
- Prematurely attempted to climb out of ground effect

The Auto-Flare

The amount of trim you have set when landing is very important if you need to go-around. Many pilots trim for the approach speed recommended in their POH and stop trimming when the landing is assured; reducing power to idle as they "cross the fence". At the appropriate time, the pilot flares for the landing, leaving the trim where it was as they crossed the fence.

There is a school of thought in Mooneydom, that a pilot should use the electric trim as his or her primary pitch control in the flare. Some call this the "Auto-Flare method". The trim, some believe, takes care of all the back pressure required for the flare.

Many pilots believe that using the "Auto-Flare method" is the secret to a "perfect landing", while others pilots claim that it's the only way they can flare a "nose heavy" plane. This is because they feel that they lack the strength to pull sufficiently back on the yoke.

You'll need ADSB-OUT to fly in Class A, B, C and Class E above 10,000'MSL but not below 2,500'AGL

If you are using the “Auto-Flare method”, have you noticed how much nose up trim you have when you reset the trim for takeoff? It can be all the way to the nose up stop – or close to it.

There are a few problems associated with the “Auto-Flare method”:

- After landing, the Mooney has so much nose up trim that it feels a little “light on its wheels.” It doesn’t take very much crosswind to make you feel that you don’t have a lot of control of your aircraft. I don’t know about you, but I like to feel like I’m in control of my Mooney.
- For those who like the “Auto-Trim method” because they lack sufficient strength to flare, performing a go-around, especially from the flare, might present a problem. That’s because after applying full power, the pilot will need to apply greater forward pressure to hold the nose down. This may be much greater forward pressure than the moderate back pressure that they thought they were avoiding by using the trim to flare.

The less nose up trim that has been set when you apply full power for the go-around, the quicker you’ll be able to trim nose down and feel more comfortable and in control of your Mooney. If you’re currently trimming in the flare, just

12 Step Auto-Flare Reovery Program

- Step one – Admit it. Tell the world, “Hi, I’m _____ and I’m an Auto-Flareaholic”.
- Steps two through twelve are identical: As you make your next eleven landings, resolve to land without trimming in the flare.

If you find yourself trimming in the flare, stop it and keep trying. Auto-Flareaholic sponsors, (Mooney CFI’s), are available and standing by to help you through your recovery.

You’ll begin to realize that you can actually make pretty nice landings without the help of trim.

If, after completing the 12 step program, you still can’t resist trimming in the flare, perhaps you should hit the gym and start working out.

Fly Safe,
Jim

Methow Valley, WA

by Linda Corman

A couple of years ago we had the chance to go to Methow Valley in the state of Washington. We fell in love with the place. Methow Valley is located on the eastern slopes of the Cascade Mountains in the town of Winthrop and is it beautiful! The flight, up from California, through Oregon and on to Methow Valley was amazing. We passed several volcanoes, verdant valleys, the Columbia River Gorge and much more. The Methow Valley Airport (S52) is in the middle of the valley and we made a straight in approach from the east. We stayed at the stunning Sun Mountain Lodge and we were happy we spent the extra money to stay there. The illustration to the left was the view from our room at sunrise. The views from the lodge of the small glacier cut valley are special and the flight into the valley was thrilling. The staff at the lodge treated us like visiting VIPs. They shuttled us to and from the airport and into the cute town of Winthrop. The little town is only a few blocks long, but it has nice restaurants and a couple of fun stores to shop in. It has an old

time western feel to it and seems to be a destination for motorcycle clubs as they were parked everywhere. We borrowed the crew car from Twisp Airport to explore around the area and what a fun ride it was. This old car was built like a land yacht and reminded us of our teenage years.

Getting back to the Sun Mountain Lodge, I highly recommend staying there. It is built high over the valley with huge mountains all around. It has the feel of the old west with gigantic wood beams and rough hewn logs. The rooms are well appointed with all the amenities of a high end hotel. We loved the bar area with balconies that perched on the side of the building overlooking the whole valley. Inside the bar is floor to ceiling windows with the same views. We had breakfast there every day and the food never disappointed us. On the property, there are nice and easy walking trails to get a little exercise and help keep those calories in check. They have nice extras like massage and skin care salons which you would not expect in a Lodge so far from the maddening crowd. They have a wonderful swimming pool where you can order a cocktail and enjoy the mellow laid back atmosphere. If that wasn't enough, they have the best horseback ride to a complete cowboy BBQ in the mountains. We saddled up for a 45 minute ride to an old homestead where the lodge staff had prepared a full cow puncher sort of dinner with chuck wagons. The only drawback to the whole adventure was probably the dust from all the horse hoofs. But, what the heck! That was half the fun, to pretend you were on the old cow herding trail. Our "equine professionals", horse wranglers, were all women and the top wrangler's name was Red. They really knew their business and made sure we all had the correct horse to meet our horse experience – or our lack of experience. We rode out at sunset and got back in time for evening cocktails. Also on the lodge property was this tiny

lake called Lake Patterson with small sailing boats. There wasn't a lot of wind that day so we just sort of drifted around, but it was still fun. If you can get a bicycle into your airplane, there are also many mountain trails to explore as well. We were in Methow Valley in August, but I understand that there are great downhill and cross country skiing areas around the Lodge. I don't know the condition of the airport in the winter, so that is something pilots have to look into for themselves.

Again, this is another example of some place we wound not have traveled to if we did not have our Mooney. We are very grateful that we had the chance to visit this really remarkable place.

Getting There

Methow Valley Airport (S52) is easily reached from the east and a straight-in to runway 31. The airport is 1706'MSL and the runway is 5049' long; plenty for our Mooneys. Coming from the Seattle area, you can easily cross the Cascades at 9500'.

There is no fuel at S52. There is a Smoke Jumper base here which has a small museum to view. There is an ample size transient parking about midway down the runway opposite all of the hangars and Smoke Jumping Base buildings.

The Lodge will give you a ride to/from the airport and down to the town of Winthrop.

Things to Do

Spoil yourself and stay at the **Sun Mountain Lodge**. It's perched on a hill overlooking the valley. Most of the rooms have stunning views.

Visit the small town of Winthrop with shops, cafes, restaurants and more.

Go hiking from the Lodge or rent a mountain bike and go riding.

Don't forget to ride the horses or take a wagon ride to the exceptional BBQ. This is an early evening ride and the food is wonderful.

If you fish, the river is a 2 minute walk from your tiedown.

October 14, Flagler (XFL)
November 8, Vero Beach, (VRB)
December 13, Punta Gorda (PGD)

October 3-5: Return to Page, Arizona (KPGA) – Join us for a day or the entire weekend at beautiful Lake Powell. Fly-into Page (KPGA). Optional activities include Lake Powell Flight Seeing Tour, Dinosaur Museum, "Blue Boat" Colorado River Tour, World Class Trout Fishing trip, Slot Canyon Tour, as well as the usual dinners on Friday and Saturday night and Lunch on Saturday at the airport.

The 2nd Mooney Summit will be hosted by Dr. Ron Dubin and Mike Elliott on **October 24-26**, at Panama City Beach, FL.

You will not only get ADS-B OUT traffic, but all traffic in radar contact.

Send your questions for Tom to TheMooneyFlyer@gmail.com

Q1: Could you tell me the pros and cons of Engine Overhauls vs. Factory Remans? Also, the best places to go for each type (O-360, IO-360, and IO550)?

I want to say this is my opinion, but also, that we don't normally sell engines due to the taxes in California. So, dollar wise, I am neutral. That's where it ends. I am totally in favor of **factory engines**. As a mechanic, the cost is my last consideration. In my over sixty years of experience, field overhauled engines have given us the most problems, like cracked crankcases and many other problems, which have cost owners lots of money and excessive downtimes. Warranties can be questionable. In one case, an owner had to fight for two years to get paid R&R time for an engine return that the shop authorized. I could write for a week about problems we have had. The factory warranties are not always cut and dry but we have had pretty good success with both factories and far less problems with factory engines. The other plus is that you can order a factory engine and keep flying until it gets to the shop, which reduces downtime quite a bit. A problem for us, is being paid our time dealing with a warranty on an engine we made no money on. We had a case where the engine shop in the East would only pay their shop rate, which was obviously lower than any shop rate in California. As a shop, we just prefer the factory engines that generally don't need warranty work. As an owner, a zero time factory engine is always better for resale. Through the years, I have had good results from both Lycoming and TCM, but everyone should read their warranty because they are different, depending on what you bought. One thing to point out about field overhauls: They will give a price, but it may not included some items or might charge extra for a crankcase repair.

Q2: Mr. Rouch, could you list all the Rod ends and flight control hinges in the common Mooney models and give their approximate location. I'd happily do regular lubrication myself, but I can't be sure that I've got them all. I'm not convinced that every A&P knows where they are either!

This is one of the most difficult questions to answer. I have never tried to count, but I estimate between 40-50 rod ends. I am going to try to answer in a different way. The aileron rods/rod ends start just behind the instrument panel and just moving the yokes will show you where they start, go thru the floor, attach to a bell crank, (a bell crank is used to change directions of control rods). The rods continue through the wing (one very long rod), to another bell crank, and to the aileron. The same applies to the rudder and elevators, and you just have to look thru the fuselage at the rods all the way to the tail to find the rod ends. The only other rod system is for the stabilizer trim, which starts below the trim wheel and goes to the stabilizer trim screw in the tail. It goes thru several bulkheads, but one is very important. It is just below the autopilot servo (if you have an AP), and can cause sticking if dirty and not lubed. I agree that there are A&Ps that don't know them all. If you use my system, going from start to finish, you will get them all. It does take time.

October, 2014

Garmin's AOA Begins Shipments

Garmin's $1,500 product offering, consisting of the GI 260 AOA indicator, GAP 26 angle-of-attack probe and GSU 25 air-data computer, has achieved FAA certification and is now shipping. No STC is required for installation, which promises to be a straightforward procedure in most aircraft.
Read More

FAA Certifies New Aspen VFR Flight Display

Priced at $4,995, the VFR PFD can be converted to IFR duty through a simple software upgrades.

Options offered include XM weather, traffic alerts (TAS), Stormscope lightning, synthetic vision (the unit must first be upgraded to the IFR-capable EFD1000 Pro version) and ADS-B capability. Shipments started in September, 2014.

Read more

VoiceFlight VFS101 Discontinued

On July 22, Garmin finally announced a solution to the cumbersome GNS-430/530 knob twisting that spawned the initial VoiceFlight development effort. Although we firmly believe the VFS101 provides a superior interface, **Garmin's new Connext product line** has had a profound effect on VFS101 sales. Despite our best efforts, VoiceFlight simply does not have the resources, equipment, or staff to continue the VFS101 product any longer.

VoiceFlight Systems will not be producing any further Nav Updates. For those customers that wish to continue using their VFS101, we have developed (at considerable effort) a Window application to build your own VFS101 Nav Updates without VoiceFlight assistance. Read More

Boost Oxygen

Hypoxia is a stealth affliction that can easily incapacitate a pilot; yes even Mooney pilots. Many pilots don't want to invest in oxygen systems, either built-in or portable if they don't go up to the FAA mandated altitudes for oxygen. You know what I mean; if the PIC is above 12,500-14,000' for more than 30 minutes or at cabin pressure altitudes above 15,000. But based on a host of metabolic variations in each of us, we can easily be affected at lower altitudes. Fatigue, aging, respiratory issues, and a host of other things can leave us oxygen deficient below these altitudes.

This is where a product like *Boost Oxygen* seems to help. The tank is disposable. It is also light, small, and accessible. If you are feeling any symptoms of hypoxia, such as a headache, or feel you're getting sloppy, or are lacking focus on the flying or radio, inhale a few sniffs of this and get your head back to 100%.

Oxygen Boost claims you can get 120 inhalations out of one 22 oz. can.

You can order this product from Sporty's for $12.95. Cheap insurance for you and your passengers.

During WWI, American troops used the newly developed (1916) *Acoustic Locator*. The large horns amplified distant sounds and the operator, wearing headphones, could direct the movement of the horns to pinpoint the position of enemy aircraft. This was later surpassed by the development of radar in the 1940s. (National Archives)

LASAR Fly-In on September 26-27

A Great Day was had by ALL! Thanks to Paul & Shery Loewen!

Mooney Instructors Around The Country

Arizona

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

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Winslow Bud Johnson, smgemail@aol.com, 203-348-2356

California

Chuck McGill (Master CFI) located in San Diego, CA 858-451-2742, Master CFI, MAPA PPP Instructor, M20M, M20R, M20TN, Website: Click Here

Don Kaye (Maser CFI) located in Palo Alto, CA, (408)-249-7626, Website: www.DonKaye.com

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

Florida

Mike Elliott (CFII)Master CFI located in Tarpon Springs, FL, Contact 317-371-4161, Email mike@aviating.com, Quality instrument & commercial instruction, transition training, ownership assistance, plane ferrying

Robert McGuire , Hawthorne, (203) 645-2222, (Dec – Feb), rmcguire007@hotmail.com

Georgia

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NOT ACCEPTING NEW STUDENTS AT THIS TIME

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A NAFI Master CFI with extensive Mooney experience. He is also an FAA Designated Pilot Examiner and has been awarded the FAA Wright Brothers Master Pilot Award. Wallace is a retired airline pilot and Mooney owner.

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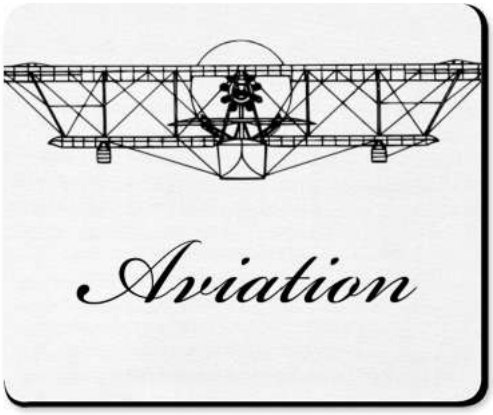

SureStart 2 Engine Preheater in good condition. Works great, but no longer need it. Runs on propane and 12V power from cig lighter. Was $500 new, asking $150 plus shipping or pick up at KELM (Elmira NY). Got my M20F through many cold northern winters. Contact Mike at michael@polytest.org.

LASAR'S Free Site

Check out Lake Aero Styling & Repair's " LASAR" Web Site: www.lasar.com : New under Mooneys for Sale, "List your Mooney for free" and "Mooney Instructors." Also check out Parts, Mods, and Services! LASAR, est. 1975 **(707) 263-0412** e-mail: parts-mods@lasar.com and service@lasar.com --