The Mooney Flyer

The Official Online Magazine for the Mooney Community

www.TheMooneyFlyer.com

September 2024

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Departments

Features

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The views expressed in each author's article are their own.
The Mooney Flyer's goal is to educate, inform, and entertain Mooniacs.

MooneyMax 2024

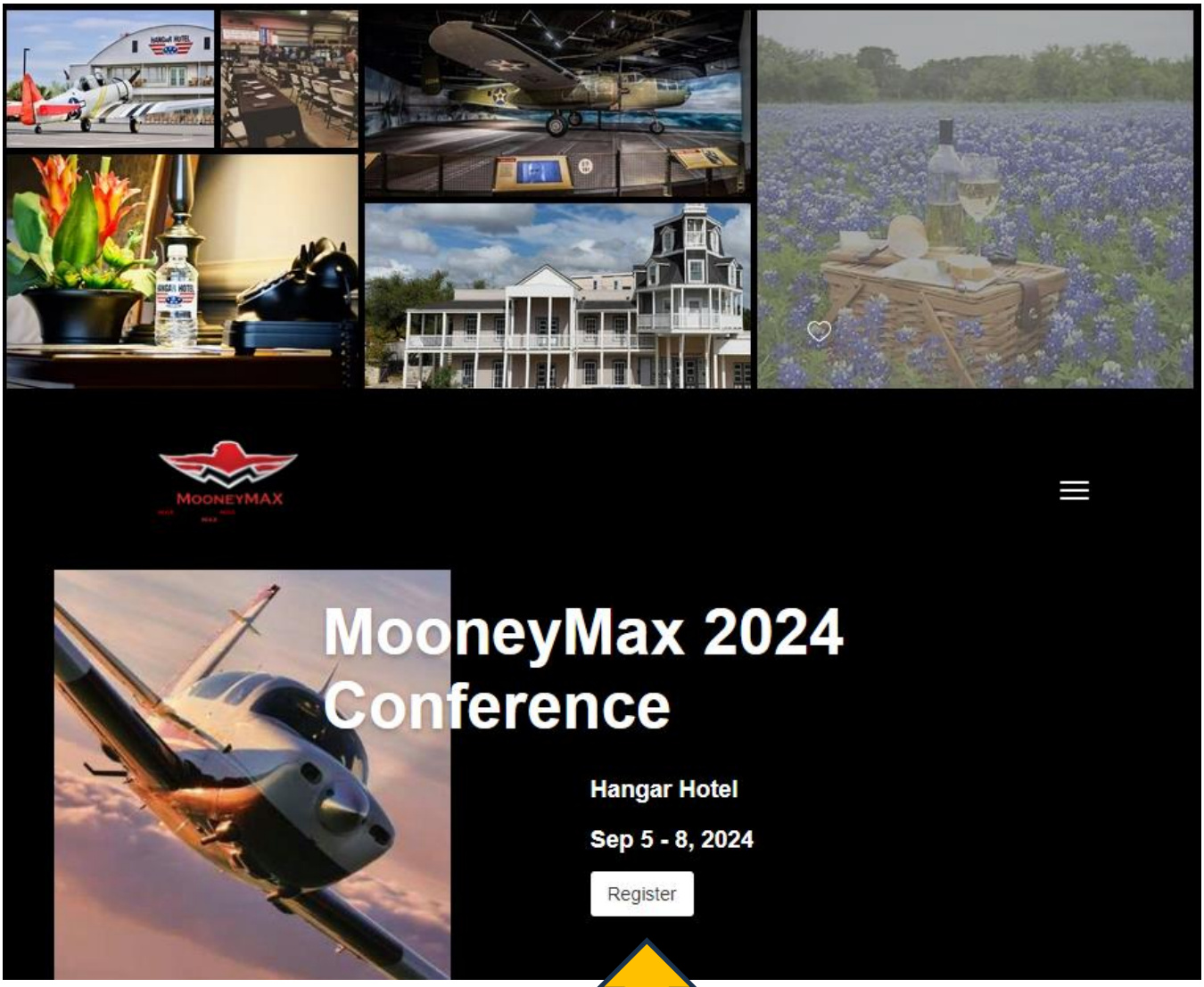
Are you planning to attend MooneyMax this month? If not, you are missing what we consider to be the premier Mooney Event of each year.

This is sponsored by Jan and Don Maxwell of Don Maxwell Aviation Services. We attended and presented at last year's event, and it was amazing. Great speakers, great topics and the Maxwell's know how to put on a Mooney event like no other. It's not too late to go. CLICK HERE for all the details.

Without mechanics, pilots are just pedestrians with expensive sunglasses.

The Mooney Safety Foundation and their Pilot Proficiency Program

Our Mooneys are a slippery and demanding airplane. They require that we fly accurately and with precision, especially when taking off and landing, while maneuvering and during recovery. Do you want to be the best Mooney pilot ever? You can realize that goal by attending a Mooney PPP. These are conducted by Mooney Safety CFIs. You will fly in your own Mooney and learn there. Each session is customized to your needs and requirements. The next session is in Burlington, VT, September 6-8. You won't be sorry. CLICK HERE to Register.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MooneyMax 2024 Conference
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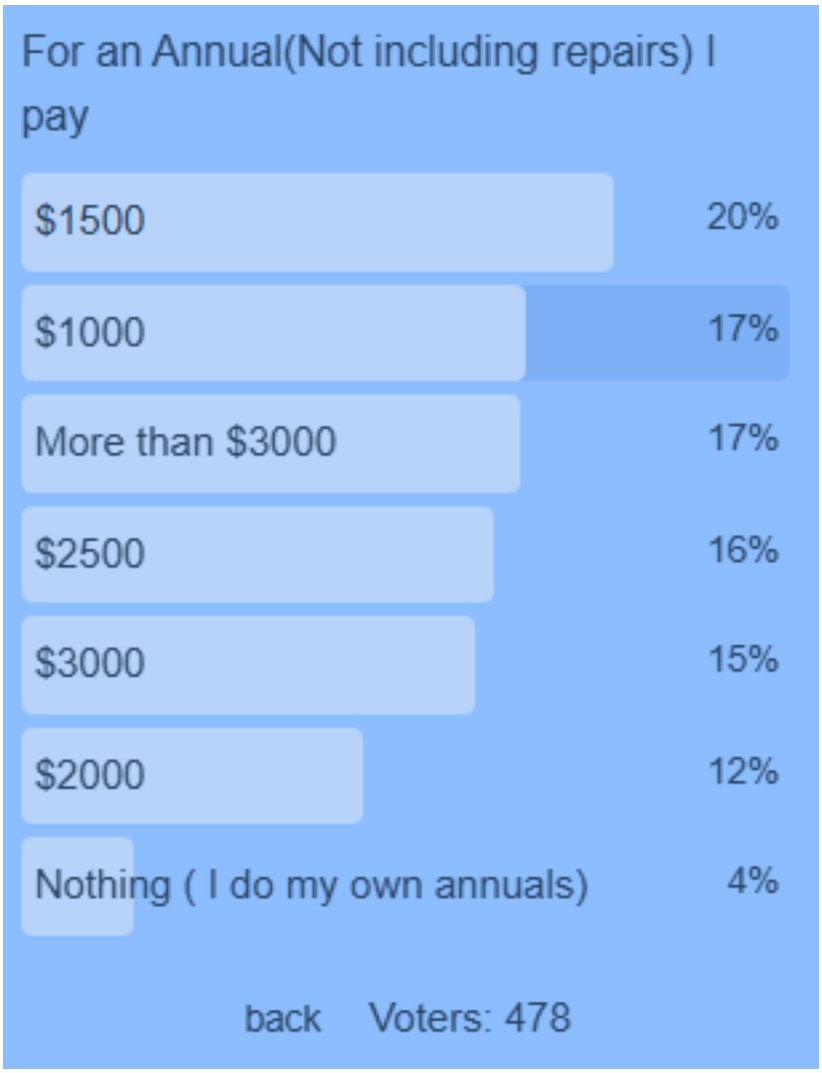
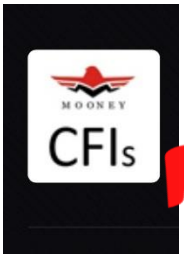


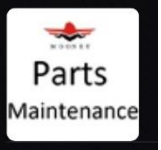
Next month's poll: "I Prefer my Landing Gear to be"

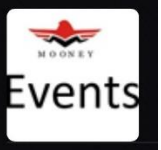
CLICK HERE to vote

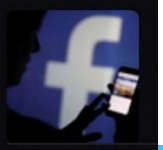
Need a Mooney CFI?

to find one









You can also go to https://themooneyflyer.com/ and click on CFIS – (located in the top menu).

You can also click on the CFIs icon, found in the website's right column menu.

CFIs can list their name and contact information on our website. To modify your current CFI listing, send an email to TheMooneyFlyer@gmail.com

Be sure to include your home base and state.

Letters to the EDITOR

TheMooneyFlyer@gmail.com

I liked the article in the July issue, "Flying and the A.S.R.S", about how to use the NASA report to minimize the consequences when we make a mistake. It was very complete and detailed in describing the how, when, and why to file a report. However, there was an important point not mentioned. The "get out of jail free" card is an incentive for pilots to report lessons-learned without fear of repercussions. The other half of the equation is getting pilots to read the reports and learn from them.

Each month, NASA publishes a two-page newsletter, with redacted reports they've received, in an entertaining and easy-to-read format. Old copies, back to 1994, can be accessed at: https://asrs.arc.nasa.gov/publications/callback.html. The old adage “Learn from the mistakes of others. You can't live long enough to make them all yourself.” (Eleanor Roosevelt) is particularly applicable to pilots.

Rod C

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Charles Clarence Robert Orville Cummings, America's First Certified Flight Instructor

Dr. Charles Clarence Cummings and his wife, the former Ruth Annabelle Kraft, lived in Joplin, Missouri where Charles was a surgeon. He was part of the original staff of St. John's Hospital and also the founder of the Jasper County Tuberculosis Hospital in Webb City, MO. Ruth was an ordained minister of the Science of Mind.

In 1909, Orville Wright and his brother Wilbur were traveling to Joplin, Missouri. Orville had contracted a fungal infection called "barber's itch." One of the first practitioners to employ ultraviolet rays in treating skin diseases, Dr. Cummings quickly cured Orville's infection. The two men became good friends.

A Long, Unique Name

On June 9, 1910, when Charles and Ruth Cumming's son was born, Charles wanted to name their son **Robert Orville Cummings**. Ruth Cummings objected so strongly, that on the birth certificate, she crossed out the words "Robert Orville" and added the names "Charles Clarence." Because there was no more room on the certificate for the surgical nurse to sign, she signed beneath the composite name. Thus, the baby would be named "**Charles Clarence Robert Orville Cummings**."

Over the next decade, Orville Wright continued to be a family friend. Charles Cummings became an advocate for public aviation and municipal airports and regaled his son with stories of the Wright Brothers' flights. Bob loved building model airplanes and watching planes take off and land from the airport west of Schifferdecker Park.

When did Robert Cummings Learn to Fly?

In 1926, when Robert was 16, and while in a mechanics class in High School, a local plumber brought in a motor that needed to be repaired. The class repaired it and in return, the grateful plumber gave each member a free airplane ride. Robert loved flying and he continued to take 15-minute flight lessons from the plumber. Each lesson cost Robert $6.

3.25 Hours?

By March 3, 1927, Cummings had a grand total of 3.25 hours of instruction. His plumber friend was unable to make a scheduled lesson, so he told Robert, "Take her up alone, you're ready." Cummings jumped in the plumber's Travel Air, took off and landed safely. A few weeks later, his mother was his first passenger.

For the next two years, he put in long hours giving passenger flights for $5. He flew charter flights and delivered airplanes. He even ferried a Ford Trimotor on one engine, the other two engines having been shipped ahead to the destination by rail.

After graduating from High School in 1928, Cummings studied briefly at Drury College in Springfield, Missouri, but his love of flying caused him to transfer to the Carnegie Institute of Technology in Pittsburgh, with the goal of a degree in aeronautical engineering. There, he flew a Curtiss Pusher.

However, the Wall Street crash of 1929 hurt his family's finances. He left college and enrolled in the New York Academy of Dramatic Arts after his roommate encouraged him with stories of opportunities in theater.

Below is a brief evolution of flight rules in the United States:

- The Wright Brothers' first flight was on December 17, 1903.
- 1926, Bob Cummings soloed in a Travel Air at the age of 16 with 3.25 hours of experience.
- On March 2, 1933, the time needed to obtain a private pilot license increased from ten to fifty hours. If you held a private pilot license during this time, you had until June 1, 1933, to meet this requirement.
- August 15, 1933, the Aeronautics Branch eliminated the "solo" pilot license and created the "student" pilot license.
- In 1938, the Civil Aviation Administration created the rating of flight instructor.
- April 18, 1939, the minimum age requirement for a private pilot license increased from sixteen to eighteen years of age.

An Acting Career

While performing in plays at Carnegie Tech, Cummings became interested in acting and decided to pursue it as a career. Since the American Academy of Dramatic Arts in New York City paid its male actors $14 a week, Cummings decided to study there. He stayed only one season, but later said that he had learned . . . "three basic principles of acting. The first – never anticipate; second – take pride in my profession. And third – trust in God. And that last is said in reverence."

Robert appeared in roles in comedy films such as *The Devil and Miss Jones* (1941) and *Princess O'Rourke* (1943), and in dramatic films, especially two of Alfred Hitchcock's thrillers, *Saboteur* (1942) and *Dial M for Murder* (1954). He received five Primetime Emmy Award nominations, and won the Primetime Emmy Award for Best Actor in a Single Performance in 1955. On February 8, 1960, he received two stars on the Hollywood Walk of Fame. He used the stage name Robert Cummings from mid-1935 until the end of 1954 and was credited as Bob Cummings from 1955 until his death.

Flight Instructor Certificate No. 1

In 1938, when the Civil Aviation Administration created the rating of flight instructor, Robert applied for it even before a qualifying exam had been prepared. The Los Angeles CAA inspector drafted a 10-hour written test and a flight test, both of which Cummings passed. He qualified for Flight Instructor Certificate No. 1, the first in the country.

World War II – Civil Air Patrol

Cummings was rejected as a combat pilot because of his age. In December 1941, he joined the newly organized Civil Air Patrol (CAP), an organization of citizens and pilots interested in helping support the U.S. war effort. In February 1942, he helped establish Squadron 918-4, located in Glendale, California's Grand Central Air Terminal. Cummings was the squadron's first commanding officer. Two weeks later, he and other members of the squadron joined the search for the Japanese submarine that had attacked the Ellwood oil installations near Goleta, in California's Santa Barbara County. Cummings also participated in search and rescue missions, courier missions, and border and forestry patrols in the Western United States.

For the CAP work he used his own aircraft, Spinach I, a 1936 Porterfield, and Spinach II, a Cessna 165 Airmaster.

Spinach I - 1936 Porterfield

Spinach II - Cessna 165 Airmaster

The squadron he established still operates as San Fernando Senior Squadron 35 and is based at Whiteman Airport in Los Angeles.

In November 1942, Cummings joined the United States Army Air Forces and served as a flight instructor. When World War II ended, Cummings served as a pilot in the United States Air Force Reserve, where he achieved the rank of captain.

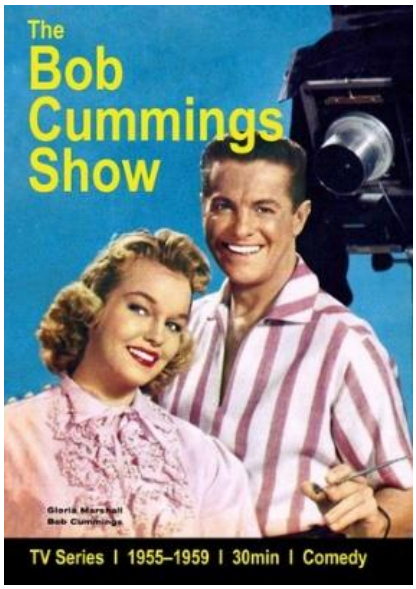
Cummings played the role of aircraft pilots in several of his postwar films. During his war service, he had small roles in the all-star *Forever and a Day* (1943) and *Flesh and Fantasy* (1943), but he was effectively off screen for two years.

After the war, he invested in a little two-plane airline that folded shortly after it began.

In 1947, he purchased his own Beechcraft C-45 plane.

In 1952, he began his work in television with the “My Hero” series.

In 1954, “The Bob Cummings Show” was launched with him as a photographer and pilot. Several episodes involved flying a biplane.



He purchased an Aerocar that had an air-cooled aircraft engine at the rear to power the car in flight. Wings and tail could be unfolded from a trailer and connected in about five minutes. It could cruise at an altitude of 12,000 feet at 100 mph. On the ground, it could only achieve 60 mph. Cummings took advantage of the combination to promote personal airplanes. His car was one of only six models made. The plane never reached production status and is currently the only Aerocar still flying.

Although he achieved his greatest fame with his television series in the 1950s and 1960s, Robert Cummings continued to make occasional movies in those years. His last movie credits were "What a Way to Go!" and "The Carpetbaggers" in 1964; "Promise Her Anything" and a remake of "Stagecoach" in 1966; and "Five Golden Dragons" in 1967.

In 1987, he said, "I wouldn't mind living until I'm 110. I still swim, do calisthenics, and keep fit. I've been in a hospital once for a hernia operation. People laugh about my using so many vitamins. When I tell them I take 50 liver pills a day, they look surprised, but whether they laugh or not, the thing works." He added, "I'm retired, I live on a pension, and if I have a problem, I get expert counsel, then ask the opinion of a good psychic."

Robert Cummings's last public appearance was in *The Magical World of Disney* episode, "The Disneyland 35th Anniversary Special" in 1990.

In his personal life, Robert was rarely a bachelor. Married five times, he quipped at his 80th birthday party, "I'm trying to catch up with Mickey Rooney." (Mickey had been married to eight wives).

On December 2, 1990, Cummings died of kidney failure and complications from pneumonia at the Motion Picture & Television Country House and Hospital in Woodland Hills, California.

Cheap Tricks to Prolong your Engine's Life

One of the most expensive and impactful elements of owning your own Mooney is the cost to replace/overhaul your engine. Fortunately, for most of us, that is 2,000 hours TBO (Time Between Overhaul). If you are running your engine properly and 1) changing the oil & filter regularly, 2) cutting and inspecting the filter for metals, 3) having an oil analysis, etc., you can probably go well beyond TBO.

In this article, I'd like to share and review a set of impactful things you can do to prolong the life of your engine regardless of whether it is a Lycoming or Continental.

Fly Often

We all have heard this but can't or don't take it seriously. Nothing can substitute for flying often. The operative word is "fly". Some folks think a fast taxi around the home drome will suffice. It doesn't! First let's determine what includes "flying often." It means flying at least once/week. More is better, but once a week is useful.

Secondly, each week, you really need to fly at least 1 hour at cruise power to boil off all the moisture that is messing with your engine. A fast taxi doesn't come close. Also not useful is turning the prop. Get the oil warm and get the CHTs to the typical operating temperature.

And as a side note, set WOT (Wide Open Throttle) during the climb and at level cruise. Your engine wants WOT during the climb. It was designed for that. Don't think you are pampering it by pulling the throttle back.

Use CamGuard

Many of us cannot fly "often," so our Mooney sits on the ramp or in a hangar for a longer period of time between flights. CamGuard is an amazing additive that has many benefits. It keeps the innards of your engine lubricated and protected against corrosion, and it increases lubricity, which is great for moving parts.

In an engine without CamGuard, after a flight, your engine will stay lubricated against corrosion for approximately 36 hours. But with CamGuard, this is increased to approximately **512** hours. This is amazingly useful to the life of your engine. CamGuard does this with polymers that act "like hair" on the walls of your cylinders. The polymer hairs keep the moisture away from the metal longer. This is a good thing, especially for your cylinders, camshaft, crankshaft, etc.

Change Your Oil & Your Filter REGULARLY

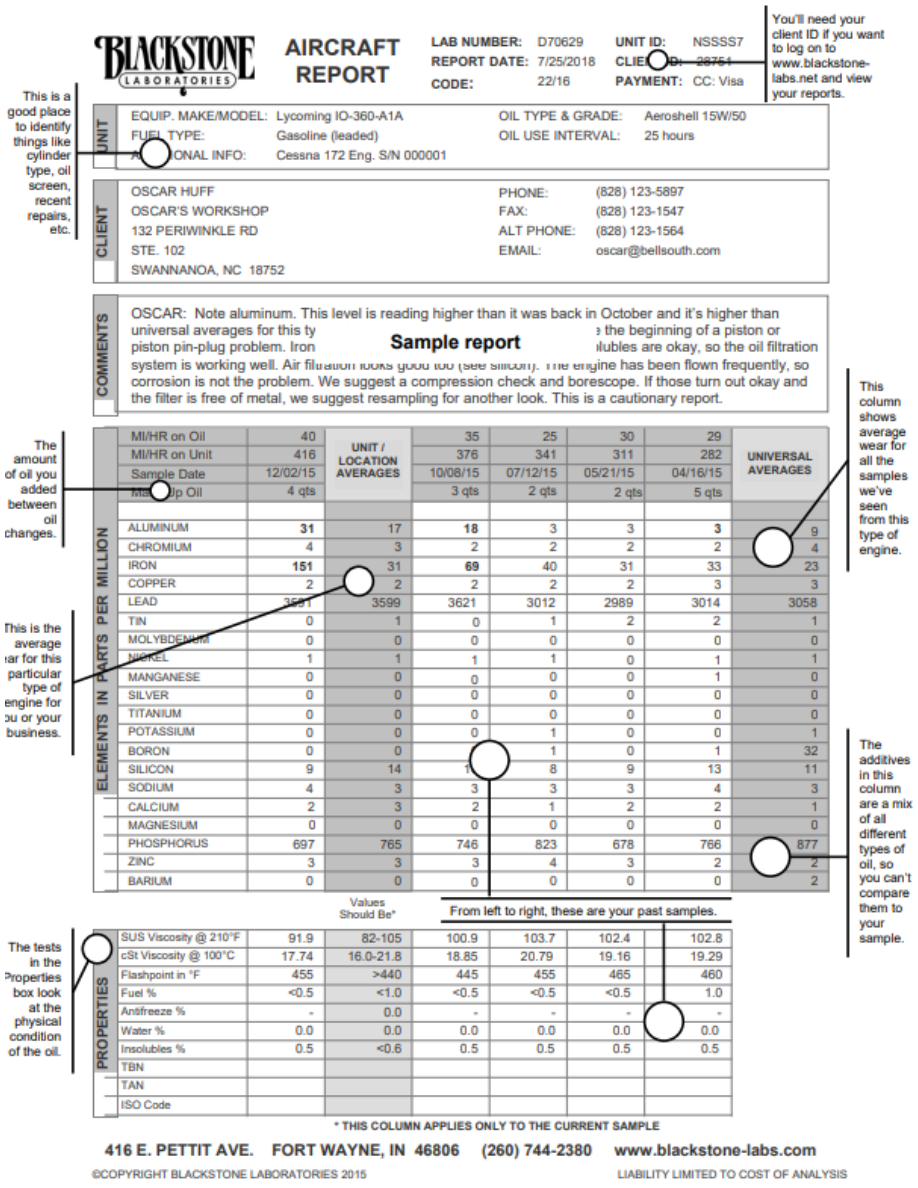
Let's start with "Change your oil AND your filter, never just your oil." Filters are inexpensive as AMUs (Aviation Monetary Units) go. So, it's wise to change them and start with fresh oil and a fresh filter. Then, pick the number of hours at which you will automatically change your oil and

filter. Some owners will change the oil at 25 hours; others at 35 hours. Both are good. But remember that after 3 calendar months, you should change the oil regardless of the number of hours on the engine's oil.

Cut the Filter and Perform Oil Analysis

While draining the oil, take a sample of your oil halfway into the draining. Send it to Blackstone Labs. You will get an amazingly detailed analysis report from Blackstone. A key thing to understand with oil analysis is the "trend line," a very important indicator of engine health. Blackstone will highlight both the good and the bad trends.

It's so easy to cut your filter and inspect it for metal and it costs nothing, except for your time.



Get an oil filter cutter, pictured here. Aircraft Spruce and Amazon carry these, and they are inexpensive. The process is simple:

1. Cut the bottom of the filter
2. Extract the filter paper
3. Slice it and flatten the filter paper on your work bench.
4. Look for metal pieces
5. If you cannot tell if a piece is iron or carbon, a magnet will help make that determination.

Perform Regular Compression Checks and Borescopes

I'm not a big fan of reacting to compression checks. Lycoming and Continental have drastically different thresholds for questionable compressions. Performing them cold vs hot, or doing a hot compression check twice can result in different readings. Nonetheless, they are valuable indicators.
A borescope is a different animal. You learn a few things about your cylinders and valves when performing a thorough borescope. First, a borescope of each cylinder can show a burning and/or stuck valve. Engines can eat stuck valves, so this is a good thing to find early. The other useful data helps you understand the health of your cylinder walls. Cylinder scoring refers to damage to cylinder walls caused by severe friction. It can occur due to:

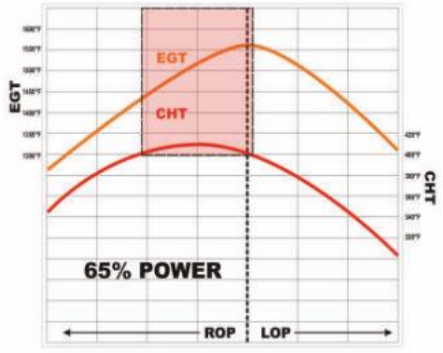
1. Loss of lubrication, which may result from an oil shortage or overheating
2. Poor fit of piston to bore
3. Wrist pin walking out of pin bore
4. Over fueling
5. Poor oiling of the bore from a failed or stuck ring

As an aside, if you are suffering "engine morning sickness," this can be an early sign of stuck valve(s). Morning sickness is a phrase to indicate that an engine runs rough immediately after starting but clears up relatively quickly. Don't ignore this. You want to see a nice circular burn pattern, not what you see to the right.

If the valve is simply not seating properly, without removal, you can ream them in place, which is relatively easy and inexpesive.

Run Your Engine Outside the Red Box

Whether you run your engine LOP or ROP, it is of paramount importance that you run it outside of the Red Box. CLICK HERE for an excellent article on this topic.
Heat is an indicator of the ICP (Internal Cylinder Pressure). You want to avoid high ICPs. You do this by selecting mixtures that reduce the ICP, thereby prolonging the life of your pistons and cylinders. At 70-75% power, my engine needs the mixture set at or above 120° ROP.



Another smart thing to do is to set lower RPMs at cruise. This saves some fuel and helps the engine run cooler. Just my $.02.

Summary

I hope you found a few things to help you manage the life of your engine.

Plan Now to Become a Safer Pilot in 2024

Attend a Mooney Pilot Proficiency Program. Visit MooneySafety.com to learn more.
You can register at https://www.mooneysafety.com/ppp-registration/

You can also email Lela Hughes, lelahughes49@gmail.com or call 210-289-6939.

Burlington, VT September 6 – 8

Dallas Ft Worth, TX Oct 18 - 20

Click Here To Register

MOONEY SAFETY.COM

The Wet (Whiskey) Compass

If you have an airplane with a mechanical compass, filled with compass fluid, is your Compass Card up to date? Does the card ever have to be updated? Well according to the **FAA's AC 43.13-1B,** compass calibration should be accomplished anytime

Magnetic	Steer	Magnetic	Steer
000°	357°	180°	187°
045°	044°	225°	228°
090°	092°	270°	269°
135°	140°	315°	314°

- The accuracy is suspected to be off by more than 10 degrees,
- After any cockpit modification involving ferrous metal
- Whenever the compass has been subjected to shock, such as a hard landing or severe turbulence.

If the aircraft has passed through a severe electrical storm, or after a lightning strike. (This may have caused ferrous components in the structure to become magnetized.)

Regulation **FAR 91.205** specifies that . . .

> **(b)** ***Visual-flight rules (day).*** For VFR flight during the day, the following instruments and equipment are required:
>
> **(1)** Airspeed indicator.
>
> **(2)** Altimeter.
>
> **(3)** Magnetic direction indicator.
>
> **(4)** Tachometer for each engine.

Most people would interpret "magnetic direction indictor" to mean a compass, but does it mean that? In 1993, Amendment 43 to Part 23 addressed the issue, and described the magnetic direction indictor as a "wet" compass. In 2012, the wording was changed to "a magnetic direction indicator," and that language remains to this day.

Beginning in 2012, there was an industry push to accept the idea that electronic instruments could deliver levels of accuracy and reliability that mechanical instruments simply could not. In fact, new Cirrus aircraft are produced without a wet compass. **Having just the electronic magnetic direction indicators will suffice.**

Magnetic Compass	1*	1*	1*	1*	* For SR20 Serials 2650 and subs: Magnetic compass is not required equipment unless specifically required by operating rules or validating certification authorities.

Turbulence

by Parvez Dara, MD, ATP, Master CFII, MEI.

Space is infinite in its complexity. It affords us majestic vistas of beauty. An open blue canvas for our imagination that often pops up with smidges of greyish-white clouds.

Space is also infinite in its potential. From trolling our imagination into creating giant rockets that carry humans into space, the final frontier, while tampering our mental reserves with turbulent mischief.

And therein lurks the adventure. Within the expansiveness of space there are “known, unknowns and known knowns,” to quote Rumsfeld. The known knowns are easier to define as in flying into the clouds in IFR, but to understand the known unknowns, well they have a way to defy our vision and catch us by surprise.

Turbulence is unpredictable. It is, at its basic level of understanding, an irregular motion of air that causes eddies and vertical motion. By “Eddies” we mean the circular, chaotic motion of air, churned by the mechanics of wind, obstructions, and heat. All three axis of an aircraft are subject to the vagaries of turbulence. From a Light Turbulence, which causes a minor change in the lateral, longitudinal and vertical axis through Moderate Turbulence, where the aircraft movement is rapid but remains in the control of the pilot. Then there is Extreme Turbulence, where control of the aircraft is lost.

Turbulence at its core is caused by two forces: A Mechanical Force and a Vertical Thermal Force. The Mechanical Force is via the wind velocity and direction. Wind velocity of greater than 20 knots with higher gusts, especially flowing over a rough terrain, can lead to an unwelcome flight. Even a stable airmass of constant 20 knot winds, as it traverses over uneven terrain, will cause eddies or burbles, or “potholes in the sky.” These will “involuntarily” move the aircraft in its various axes. The changing force and the varying direction, due to terrain and thermal convection, creates the dynamics of unpredictable wind vector that causes turbulence.

Note that with the heat of a summer’s day, as the beach goers enjoy the sun, water and sand, the pilot faces the uncomfortable bumps that turn the ice cream in his stomach into a milk shake. The eddies, mixing with the vertical motion of the heat generating lift of the heated air, makes for discomfort. The up motion of the lift vector from the surface temperatures, and the perpendicular wind vectors pushing the heated air along, make for a dynamism in space. Unseen, but felt.

Mountainous terrain has its own share of drama for the pilot, who is cruising over flat terrain and can see the terrain rising in front of him. The East coast Appalachians, and the Rockies in the west, pose an interesting threat. The former can produce some interesting chatter in the aircraft, all the way up to

10,000 feet. Flying to Oklahoma from New Jersey, I once encountered a mountain wave where the Indicated Airspeed changed from 92 knots to 164 knots without a single bump. The mountain waves occur due to winds blowing perpendicular to the mountain ridge at greater than 25 knots in a stable atmosphere. This creates updrafts and downdrafts over the mountainous ridge. Imagine the thrill of an Indicated Airspeed of 164 knots followed slowly and progressively to 92 knots. Suddenly, the heart starts to miss a beat as the angle of attack indicator goes from full green to blue and yellow. If one were to add a high K index, and blow some lift into the atmosphere, that combination can be a rough transit, especially within the clouds. In the western part of our country where, at some points, the

mountains are nearing 15,000 feet, there are additional things to worry about. The eddies created by those outcropping landmasses are gigantic, causing “Rotor Clouds” to form on the leeward side of the mountain. These rotor clouds usually form between 15,000 and 20,000 feet, and can take an aircraft down if one curiously or inadvertently enters it. Similar mechanics are at play in Clear Air Turbulence. You cannot see the turbulence, but if you get into it, you will certainly feel the impact and taste your stomach acid, if not a whole lot more.

Thermal Turbulence occurs over large land masses across the country. In the heat of a summer’s day,

flying over the barren desert land of Northern Texas, Southern New Mexico, and Arizona can be quite the challenge. It could force your passengers to take a commercial flight the next time around. I’ve been there, and some have done that, too. The summer sun heats the land which forces the air-parcels to rise. The vegetation slows down the thermal activity a bit, hence the air parcels are uneven, rising here and falling there. This up and down motion of air creates eddies and messes with the various axes of an aircraft. Suffice it to say, that flying at a higher altitude in the summer is a preferred mode of operation. Add the wind to the mix, and it gives a whole new meaning to the term discomfort. Such convective currents displace air rapidly, and thus the uneven heating and the gusty winds can be a real challenge for pilots. In the summer, one can see a haze layer between the warm surface air and the clear westerly flow of cooler air. It is best to fly above the haze layer to avoid turbulence. If there is a small scattered cumulous cloud layer, then it would be better to fly above that layer, where the air is stable, and comfort is guaranteed.

I once flew with a newly minted private pilot in his Piper Archer. Upon takeoff, the turbulence was minimal, so he had a wide grin on his face, as he saw the aircraft perform under his command. As we got higher to 4,500 feet, the turbulence became unnerving and he said, “You take over!” I did, slowing it down to maneuvering speed and extending the landing gear. The aircraft settled down and we bumped along gingerly to our destination. I reminded him about the nature of Va (Maneuvering speed). This is the maximum speed at which an aircraft can stall before exceeding its limit load factor. It's also the maximum speed at which the aircraft's controls can be fully deflected without overstressing the airframe and causing potential damage to the aircraft or, in severe cases, a breakup of the aircraft in the air. Perhaps a lesson learned.

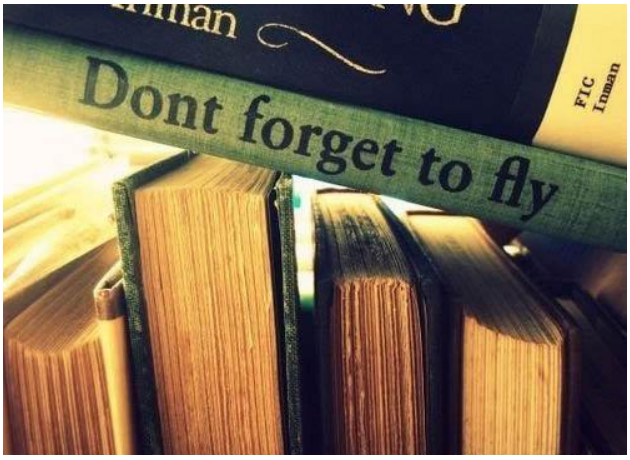
One can see the fluid dynamics of pouring cold milk in a cup of hot coffee. The milk churns and churns until it finds equilibrium. The equilibrium in a confined space is easy to see. But, in the infinite space, where several weather phenomena are competing and contemplating their actions at once, equilibrium is not often the result.

Cold Weather Fronts, due to the denser colder air, push the warm front over and above them as they slide closer to the earth's surface underneath. This creates the same turbulence, setting up eddies, by lifting the warmer air ahead atop the colder denser air slipping below. This effect is not too dissimilar to eddies forming around the hills and the mountainous terrain.

If you fly long enough, you will encounter some or most of these phenomena of nature. One phenomenon was over the Front Range airport in Colorado. I was happily watching the pilot flying his M20M on an ILS approach in VFR condition while wearing his view limiting device. I had my eyes wide open. I could see a sudden shaft of rain 7 miles ahead. The clouds decided to empty their burden. As we crossed the FAF (Final Approach Fix), the rain shaft grew. I looked at the IAS. It was jumping +/-5-10 knots. Ahhh, a wind shear and a lot worse, was going to mess with our landing. I asked the pilot to declare a missed approach and request vectors for another ILS. He was alarmed, but true to his flight objective, he requested the vectors, which were granted. As we turned back, the wind shear hit us and the IAS decreased. The downdraft caused him to pitch up to maintain altitude, and I helped push the throttle in to maintain airspeed. In short order, our groundspeed built up from 120 knots to over 150 knots. His heart must have skipped a few beats as he took his "Foggles" off in a hurry, to see what was going on. But, there was nothing to see in the 180-degree direction. Everything was behind us. Soon, as we reached the IAF, I checked the ATIS once again and the airport reported winds gusting to 34 knots in wind swept rain. He took off his "Foggles" again and looked at me with the "deer in headlight" look. What? We deviated to another airport and waited for the cell to move or dissipate, which it did. I took the chance to debrief the pilot of what had just happened. It was a good lesson for both of us.

Turbulence is common but never to be taken lightly. It can make milkshakes in your stomach, it can hurl unstrapped-down objects around in the aircraft, create deviations in airspeed, altitude and pitch, yaw and bank axis and even cast you and your aircraft as a discarded toy, or in extreme circumstance, break it apart. So be prepared and don't take it lightly.

Learn to understand nature and its vagaries. Weather is not only "flying in the clouds." It is everything that happens in space.



Vegas for the Day, Baby

By Richard Brown

Five years ago, my wife and I flew into Camarillo (KCMA) for the airshow, which is easily the best way to and from an airshow. I was looking forward to going again this year and it looked like the weekend was free, right up until my son's fiancée scheduled a bridal shower on the same day. You might be asking what that has to do with me, and I understand your confusion. Guys don't go to bridal showers.

She's from Henderson, NV, which is either a 4-hour drive or about a 1 ½ hour flight in our Mooney. The options were A) for my wife to drive to Vegas for the bridal shower and I could fly to Camarillo for the airshow, or B) I could miss the airshow and fly her to the shower and back. In the interest of maintaining my wife's support of this amazing hobby, I chose option B.

My son lives in Idaho Falls and his fiancée is up the road in Rexburg, so I asked if she was flying down to Vegas for the shower or driving. He responded that she was driving. He had a similar decision to make. He could stay home for the weekend and do some rock climbing, or drive with her to Vegas.

I gave him a call and asked, "Are you driving down with her?"

"I'm thinking it would be a good idea," he replied. Smart kid!

"Great! I'm going to fly Kathy to Henderson, Nevada and we can find something to do while they're busy. Me missing the airshow and him missing a weekend of climbing was going to turn into a win, with time spent together, and I would still get to fly!

It is the middle of August which typically means clear skies by mid-morning, so Friday, I filed a VFR flight plan. Looking at the TAF's and online forecasts Friday evening, I was 80% leaning on making an IFR departure in the morning. We planned a 9:30am departure to land in Henderson (KHND) at 11am. I slept in until 6:30am before getting up to take care of the dogs, eat some breakfast, look at the weather and get a briefing.

The forecast from the night before was spot-on, so I filed an IFR plan and got my flight briefing. As we pulled through the gate at the airport at 9am, off to the east, the marine layer was breaking up at the airport, the sun was already starting to peak through. By the time I completed the pre-flight and we were taxiing to the run-up area, it was really breaking up. The ATIS was still reporting overcast at 1,800', but that would need to be updated long before the typical 7-8 minutes before the hour.

Sitting in the run-up area, looking to the east, I knew I could depart VFR and within a few minutes be past the rapidly dissolving marine layer. I could then begin my climb to altitude, but I had a different idea. The marine layer is typically thin, maybe a couple thousand feet thick, and once on top, it is VFR forever. I have often heard other pilots picking up a clearance for an IFR climb to VFR conditions. I have never done that, but I saw this as a great time to try it out and copy a clearance I'm not used to hearing.

Me: "Fullerton Ground, Mooney 1015Echo in the southeast runup with Tango. I have an IFR plan on file but if I can, I would like to just pick up an IFR climb to VFR on top."
Ground: "Mooney 1015Echo, on request."

A couple minutes went by and I mentioned to my wife that I could have just taken my IFR clearance for the filed flight plan and cancelled once on top. I knew he was getting a new clearance which takes time. Just as I was finishing that sentence he came back on the radio.

Ground: “Mooney 15Echo, I have your clearance, advise when ready to copy.”

I had been sitting there with my pen in my hand, just waiting. “Ready to copy,” I said.
Ground: “Mooney 1015Echo, you are cleared to the Seal Beach VOR via on departure, left turn heading 120, radar vectors to Seal Beach, climb maintain 2,000, if not on top at 2,000 advise. Frequency 125.35, squawk 4744.”
Me: “Cleared to Seal Beach, on departure left turn heading 120, vectors to Seal Beach, climb maintain 2,000 and if not on top maintain 2,000 and advise, frequency 125.35, squawk 4744, 15Echo.”
Ground: “Mooney 15Echo, readback correct, taxi two-four via Alpha.”

I set the altitude bug in the G5 to 2,000, the heading bug to 120, punched in the squawk and started the taxi. As I was approaching the runway, I called Tower and was cleared to depart. I love video breaking out of the clouds and as we rolled onto the runway, I told my wife, “You’re going to need to record the video.”

Tower gave a quick handoff to Departure who told me to ident and climb/maintain 3,000, along with a tops request, if I could give one. We went into the clouds, if you can call it that, at about 2,000 and were on top by 2,500. They were so thin and patchy I never really lost sight of the ground or the sky. However, there wasn’t enough cloud clearance to call it VFR.

Me: “Departure, Mooney 15Echo, tops are 2,500.”
Departure: “Thanks. Is your destination Henderson?”
Me: “Affirmative.”
Departure: “What is your requested cruising altitude?”
Me: “Niner-thousand five hundred.”
Departure: “And you are VFR. Did you want to cancel IFR now?”
Me: “Yes, we are. We can cancel IFR.”

Departure: “Mooney 1015Echo, IFR cancellation received, maintain your code for VFR flight following, resume own navigation, altitude your discretion.”
Me: “We’ll keep the code, resuming own nav and altitude, 15Echo.”
Just like that we went from IFR to VFR and were turned loose to fly on our own, and for now, there were no heading or altitude restrictions. A little later, we were handed off and I checked in with my altitude and mentioned that we were climbing to 9,500. He came back with the altimeter setting and told me to stop at 9,000 for crossing traffic. A few minutes passed and then he cleared us up to 9,500.

North of the San Bernardino Mountains, heading out over the high desert, we were handed off to LA Center. Earlier, as we passed Lake Arrowhead, I saw a plane with the call sign TALON51 crossing our path from right to left at 5,100’ and 325kts. As he got closer, I could see he was a fighter aircraft, but because he was a little over 3,000’ below us, it was too hard to see exactly what he was. He had proceeded northwest before turning east and was again flying past us about 5,000’ below us and over 400kts.

Center: “November 1015Echo, I show traffic below you, moving from your 9 o’clock to 3 o’clock. Looks like it might be a fighter.”
Me: “We’re looking. It’s a fighter. I saw him earlier.” *(Same call sign on the tablet and I had been tracking him. In all fairness, it might have been a T-38 with the call sign Talon, which isn’t technically a fighter in the USAF, but it is a fighter trainer.)*
Center: “Could you see what it was?”
Me: “Negative, he was about 3,000’ below us.”

I never did get another visual on him, but at one point, he was climbing 2,300 fpm at 400+kts. I was maybe just a little jealous of the fun he was having.

Every now and then you get a question from ATC that has you wondering why they are asking. Earlier with SoCal Departure, she had confirmed my destination and cancelled my IFR, but apparently that hadn’t made it through the system to Center. A few minutes after the interaction about the fighter Center was calling me up again.

Center: “November 1015Echo, are you VFR-on-Top?”
Me: “Affirmative, 15Echo.”
Center: “And what is your intended route of flight?”
Me: “We’re going Hector then direct.”

After a pause…

Center: “And you’re going to Seal Beach?”
Me: “No, we’re going to Henderson, Hotel-November-Delta.”
Center: “Ok, and you’re VFR? I show you IFR. Were you IFR just to get above the layer?”

He was no doubt trying to piece together why I was at a VFR altitude and heading directly away from the destination he had on file.

Me: “Uh, yes. But we already cancelled with SoCal.”
Center: “That’s why I had asked if you were VFR-on-Top.”
Me: “Oh, you can cancel that IFR.”
Center: “November 1015Echo, IFR cancellation received.”
Me: “Thanks, 15Echo.”

We cruised along our merry way with a nice quartering tailwind, which boosted ground speeds into the upper 180 mph and lower 190 mph range for most of the flight. My plane's True Airspeed is about 170-172 mph, so anytime I'm hovering around 190 mph groundspeed, it's a good day! With that 30-mph quartering tailwind, I was looking at Clark Mountain over 70 miles away, and it was at about the 10 o'clock position. However, our track showed us going to the left of it. The drift was real.

We began our descent, and although I usually leave it in full power to make up time lost in the climb, I pulled it back to stay in the green arc. I was anticipating some bumps from the winds rolling over Clark Mountain and the surrounding hills. There were a few bumps on the way down, and I was starting to think we were in the clear when there was a big "whump" and both our heads hit the top of the cabin. We had both tightened up the lap belts but apparently not enough. It seems every time I don't have my camera on, something happens or is said on the radio that I wish I captured. It wasn't glamorous, but it would have been entertaining to see us both bounce our heads off the top of the cabin.
Vegas approach called out a couple of planes, going the opposite direction, that were climbing out of Henderson which we spotted. We were later handed off to Henderson tower. They must not have a radar there, because I was still on my squawk code and he told me to make right traffic, runway 17R, and report when midfield on downwind. With gusting winds coming over the hills a few miles south of the airport, I was busy on the controls. I set the plane down for a respectable landing and taxied to transient parking.

All the spots in front of the FBO are reserved for jets and turbines, and there were plenty to fill up the spaces. They stick the little piston guys south of the fuel island, about 1,100' from the front door. At 100+°F it's a decent stroll. My son and his fiancée came out to the plane, and he helped me tie it down before we went inside to check in and grab some cold-water bottles.

After eating lunch, my son and I headed to Top Golf.

"Did you bring your golf shoes?" He asked.

"No, pretty sure we'll see people dressed in just about everything. I'm just going to wear my tennis shoes," I replied.

As we pulled into the parking lot, there were three couples walking out of the building. The guys were in shorts and tank tops, while the girls were in bikinis with mesh coverups. "See, all kinds of clothes," I said with a laugh.

If you have never been to Top Golf, the best way I can describe it is that it is like bowling with golf. If you golf, you'll notice the clubs aren't great and the balls feel like you're hitting rocks, but it is a blast! There are different size targets at different distances and various games that incorporate distance, accuracy, or nothing at all. You can go play with someone who has never swung a club before, and they can compete against someone who plays all the time. An attentive wait staff is there to bring food or drinks from the menus on the table and before you know it, two hours have flown by. Even there in Vegas where the temperature was creeping into the triple-digits, we were comfortable with the fans and overhead misters.

Heading back to the airport, we stopped at a gas station so I could get three 7 lb. bags of ice to dump in the AC, hoping it would take the edge off the 106°F temp. Their shuttle driver gave me a ride across the ramp while my wife waited behind in the FBO. There was no sense in her standing there in the heat while I loaded the plane and accomplished the pre-flight. As I was finishing up, the shuttle pulled up and joined me on the tarmac, which was masquerading as a hot plate.

As soon as the engine was running, I closed the door and vents, keeping the cool air inside. It isn't like a blast of cold air from the AC in your car, but it does a decent job of dropping the temperature of the air, blowing on your neck and the back of your head.

The ATIS at some airports will tell you to advise direction of flight when calling up Ground. Henderson doesn't have that message. The winds were 200 at 18 gusting 28 with runway 17R and 17L in use. I called Ground with my taxi request, intending to advise Henderson tower of my direction of flight when getting ready to depart.

Me: "Henderson Ground, Mooney 1015Echo at transient just south of the fuel island, taxi 17R with Golf." *(Ironic after playing Top Golf a few hours before.)*
Ground: "Mooney 1015Echo, what is your direction of flight?"
Me: "Southwest."
Ground: "Taxi 17R via Hotel."
Me: "17R via Hotel, 15Echo."

I looked at the diagram and saw that we would be taxiing almost the entire way in the non-movement area before picking up taxiway Hotel, right at the end. There was no need to wait for temps to come up when we got to the end for the run-up. The engine and oil were all over 100°F *before* starting up.

The density altitude was 6,200', so I knew in addition to leaning the EGT on the roll, it was also going to take longer than normal to get up to speed and off the ground. We did have 18 gusting to 28 winds to help us off the ground. I made sure to level off just after lifting off to make sure we built up a little speed to keep flying, just in case it was one of those gusts that had popped us up.

In the hot air, it was a slow climb to 10,500', but we averaged 400 fpm over the entire climb. I felt pretty good about it, considering at 10,500' the density altitude was over 12,500'. Passing through 7,000' we turned on the Inogen One G5 Oxygen Generator and put on the cannulas. I am impressed by how well it works, even split off to both of us, and how fresh I feel after flying. Despite the triple digits on the ground, it was a nice 56°F at altitude, so I reached over and pulled the breaker to turn off the AC and save it for our descent back into Fullerton.

The aviation gods were smiling down on us as the tailwind we rode on the way up had died off about halfway through the flight, leaving us with a manageable quartering headwind. We even had a couple of stints in some rising air, and I had to pull power with about 3° nose down to stop the autopilot from yelling "airspeed, airspeed" at me as the indicated airspeed hit 178 mph.

Descending through smooth air back into the LA Basin, I reached over and pushed the breaker back in and was instantly rewarded by a cool blast of air that lasted all the way to the ground. Even after landing, when I was pumping it out, the ice was gone but the water was cold.
I love our Mooney Time Machine. Just under 3 hours of flying, and just over 6 hours of time with family in Vegas. If we had driven, it would have been a long day with 7 ½ hours of driving (assuming no traffic). What an amazing way to travel and an amazing life!

Marriage License in hand – Ready for October

As always, thank you for taking the time to read. If there are things you would like me to write about (or not write about), or if you just want to say hello, drop me an email at richard@intothesky.com. If you're ever in Southern California and want to meet up, let me know.

Thunderbird Aircraft Sales

Specializing in pre-owned Mooney Sales and Brokerage

Hello Mooney Flyer Gang,
My name is Richard Simile, I am the President of ***Thunderbird Aircraft Sales***. We Specialize in the Sale and Brokerage of late Model Mooney Aircraft. If you are considering the purchase of a newer Mooney, or thinking about selling your current Mooney, we hope you will consider using us. Our objective is to always provide a very pleasant transactional experience for both the Seller, and the Buyer. We have two offices. One in Auburn, AL and one in Chandler AZ. Please give us a call or email. We look forward to the possibility of serving you. Thank you.

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AIRPORT ROAD SURVEY

Many years ago, back in the mid-1980s, I met a Crop Duster Pilot in Mesa, AZ. I asked him how he stays safe, flying so low all the time? He told me that he goes out and drives the roads around the fields, and from the ground view, he takes mental snapshots of obstacles before ever flying there. I thought that was the smartest thing I ever heard about mitigation of risk!! It got me thinking back then, that this protocol is very applicable in our everyday flying since, in nearly all cases, we are driving to the airport. So, I started keeping my eyes wide open while driving near ANY airport, to pick up visual cues to ANY place where a dead stick landing near the airport could be safely made. I have been surveying roads around airports ever since I met that AG Pilot, and I can attest that having that added situational awareness is a certain confidence builder during a pre-takeoff briefing.

As a side note, a friend of mine laughed at me pretty hard for suggesting this AIRPORT ROAD SURVEY protocol. That was, until he had a power failure on takeoff.

He stopped on the runway, but he called me and told me that having the information about the road, if he couldn't stop on the runway, might have been critical to his survival.

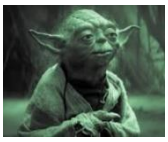
He now looks at every road around every airport in a completely different way. This AIRPORT ROAD SURVEY is only my suggestion to help you mitigate the risk of takeoff and landing. Anything that gives you an added advantage of confidence, in the event you should ever have an engine failure, is a very good thing indeed.

Let's Get Down and Get Dirty

By Jerry Proctor, Mooney Safety Foundation

I wonder about this title because it could have more than one meaning. So let me lose about half the readers at once. This article is about oil or mud, not some other three letter word.

When I had the special privilege of buying my Mooney from the factory in late 2016, I got down! First, I bought the Mooney demo bird they flew to airshows and such, after Mooney started up the line again. My new bird was one year old, but it sold as new and at a price I could eke out. As she sat there on that white ceramic floor, looking amazing, I got down on all fours and went from one end to the other, checking out her underside. It was pretty nice.



The Mooney folks were surprised at my action, so I asked, doesn't everyone look underneath? They replied, "No. Most do not." Surprised was I, as Yoda might say.

I recently flew with a fine gentleman who dressed as such. However, he didn't let his pressed khaki pants stay ultra clean. He rightfully got down and checked many things underneath his, new to him, plane. I was happy to see that he was like me, because I too wear some ruffled REI pants to crawl under the plane.

So, let us explore the underworld. So much of the health of your plane you can only detect by gettin' down and dirty. Let's start at the nose wheel truss. Yes, we all know it is very sensitive when an 18-year-old line kid turns the tug too tight. So, check it while down under. You can't do it visually. Ya gotta at least get your finger dirty. Then, let us go around either to the left or right side, and again on all fours, look at the tail pipe. Wiggle it and if it wiggles … oh-oh. Then look in the nose gear wheel well. I mean really look at it! By that I mean, trace the linkages, touch them, look for a variety of fluids that might be coming out. Look at the door hinges. We have seen doors that were almost ready to come off at the Mooney Safety Foundation Pilot Proficiency Programs.

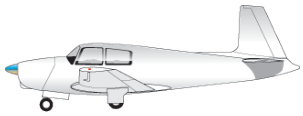
Then look at your belly. When was the last time you got on a creeper and spent two hours cleaning and waxing your baby's belly? She really likes it when you do that. Be sure to wheel over to the main gear area and look for issues there. Is the mouse boot okay? That puddle you taxied through the other day sure enough, splashed on your flap. Remember, between your head and your wing step, which won't be damaged when you two bump? Here's a hint, it ain't the step.

I could go on, all the way to the tail, but I won't. You all get my point. You don't need to get your creeper out every time you fly. But frankly, I cannot imagine some pilot NOT looking under every part of your beautiful ride. If you see blue, it can make you feel blue. So, each time you fly, Git down, Git down, as the song would go.

When you come to a Mooney Safety Foundation PPP, we look at each plane. One or two of the directors will crawl around under them. They are both very experienced A&Ps. We don't do an inspection, but we do perform a look. So, speaking of look, we are looking forward to seeing you at a future Mooney PPP. Next one is at good old Ft Worth.

Until then, fly safe, and get dirty!

LIGHT GUN SIGNALS			
COLOR AND TYPE OF SIGNAL	**MOVEMENT OF VEHICLES, EQUIPMENT, AND PERSONNEL**	**AIRCRAFT ON THE GROUND**	**AIRCRAFT IN FLIGHT**
STEADY GREEN	Cleared to cross, proceed, or go	Cleared for takeoff	Cleared to land
FLASHING GREEN	Not applicable	Cleared for taxi	Return for landing (to be followed by steady green at the proper time)
STEADY RED	Stop!	Stop!	Give way to other aircraft and continue circling
FLASHING RED	Clear the taxiway/runway	Taxi clear of the runway in use	Airport unsafe, do not land
FLASHING WHITE	Return to starting point on airport	Return to starting point on airport	Not applicable
ALTERNATING RED AND GREEN	Exercise extreme caution!	Exercise extreme caution!	Exercise extreme caution!



Mooney Maintenance

Search Mooney's new website for Service Bulletins (SBs) and Service Instructions applicable to your Mooney

CLICK HERE for the FAA's Airworthiness Directives (ADs) for all Mooneys.

Ask the Top Gun

Tom Rouch

Founder of Top Gun Aviation, Stockton, California

Send your questions for Tom to TheMooneyFlyer@gmail.com

QUESTION

What are your opinions on power flow exhaust? What improvements have you seen or is it a net zero? Are there more cons than pros?

Tom's Answer

Well, you finally got me about something that I have very little experience. I do know that any tuned exhaust system usually provides a boost in horsepower and performance. I recommend going to PowerFlow Exhaust System's website which provides a very good detail on their system. Just click here: https://www.powerflowsystems.com/ This takes me back to my "Smittys" muffler days on my 39 Ford Coupe. When we modified our F & J, we did all the speed increases by adding aerodynamic mods. We kept the stock engine, but went to the composite prop for improved performance. If I did it again, I would consider the exhaust mod kit, but it's all about the money and I did a lot of the mods with salvaged parts or newer versions of damaged parts which I had to replace.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The annals of Texas History are filled with the deeds of valor and self reliance of a famous group of men known as Texas Rangers. The Texas Ranger is an exceptional man. The new Mooney Ranger is an exceptional airplane with a proven heritage for rugged performance and dependability. Ready to take on all comers in its price class the Ranger offers outstanding speed . . . 172 mph cruise . . . wide range . . . over 900 miles . . . rugged construction second to none . . . lowest operating and maintenance costs . . . Positive Control flight stability as standard equipment included in the base price . . . the fastest gear in the West!
You can look the world over . . . you won't find a more dependable, higher performance aircraft to match guns with the Mooney Ranger. Don't be ambushed with anything less . . . see and fly the fastest, lowest priced one in its field.
Win this custom matched set of gold handled Colt 45's. For details see your Mooney dealer today.
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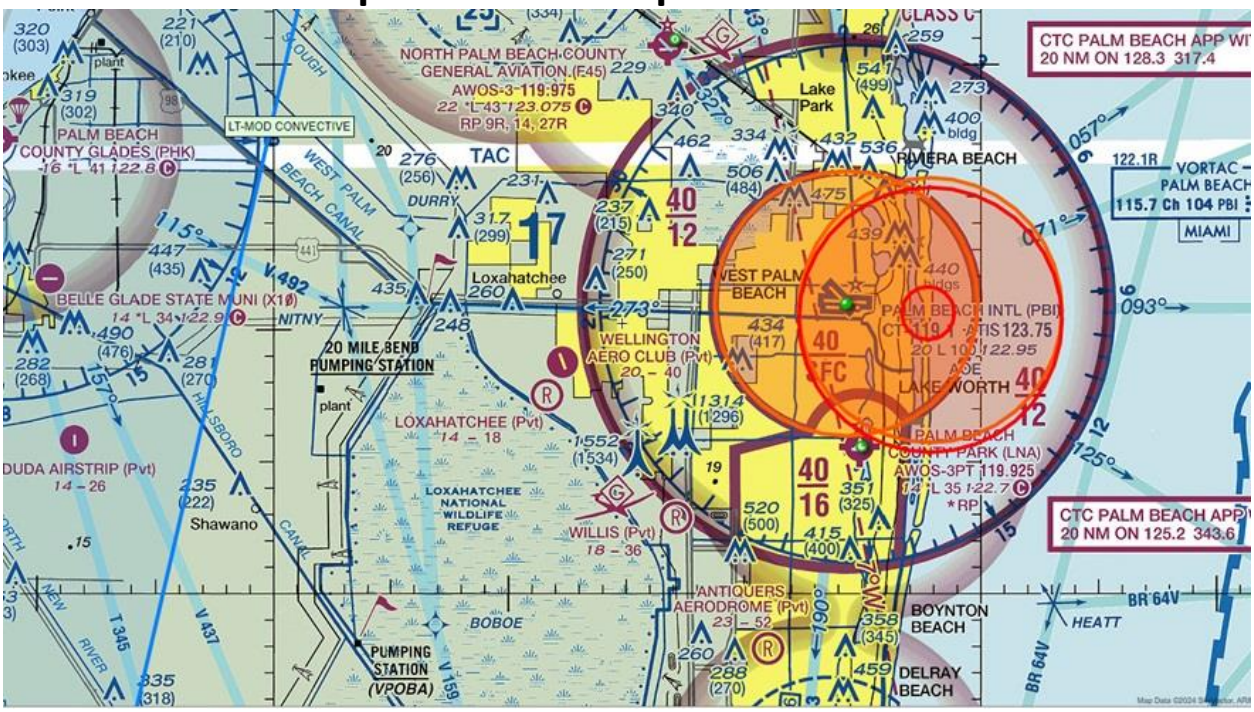
VIP TFRs expanded

Secret Service Requested more Space



Most pilots are familiar with the 3-nautical-mile radius TFRs frequently used to protect the vice president. These typically extended–from the surface to 2,999 feet AGL. We commonly see these TFRs also used to protect the presidential nominees and vice president-elect during election season.

After the attempted assassination of former President Donald Trump on July 13, the Secret Service asked for additional protection around political VIPs, which the FAA has accommodated. The result is that **these TFRs will now extend out to 5 nm and up to 4,999 feet AGL.** All the other details associated with these TFRs that pilots have become accustomed, will remain the same.

However, it should be noted that, while these are the standard dimensions, the Secret Service does occasionally ask for variations. For example, if there are going to be multiple 5-nm TFRs in a relatively small area, they may instead ask for a single 10-nm TFR to reduce complexity.

Events

FLORIDA MOONEY LUNCH GROUP	Contact Dave at daveanruth@aol.com or (352) 343-3196, before coming to the restaurant, to have an accurate count. Events begin at 11:30 September 14: Winter Haven (GIF) October 12: Flagler (FIN)
MOONEY SAFETY.com	Sign Up at https://www.mooneysafety.com/ppp-registration/ **Remaining 2024 Event locations:** Burlington, VT, Sep 6-8 Dallas Ft Worth, TX, Oct 18-20
AUSTRALIAN Mooney PILOTS ASSOCIATION LTD	
EMPOA	**Learn more at** https://www.empoa.eu/index.php/en/
The Mooney Flyer	

New Monitor for Oxygen Systems

The Cylinder Sentinel Wireless Oxygen Cylinder Monitor allows pilots to monitor oxygen capacity in flight via an iOS or Android app with no external batteries or wires.

The monitor, which is available on all Aerox and SkyOx Portable Oxygen Systems, is $250.

For more information: **Aerox.com**

Parts for Sale

1959 Mooney 20A - Seeking Mooney Purist * $17,000

Hangar stored for years, now ready for overhaul(s) and refurbish. * Airframe and engine 1439.1 TT. McAuley prop. O360 engine. Wood-wing.

* Would consider selling only the engine and prop. However, sentimentally prefer to find a Mooney Lover seeking a great project. * Telephone: 419 591 6477 for further information.

This Cowling was removed from a M20E and replaced with a M20J (201) cowling. The cowling is located at Fullerton Airport (KFUL) and is in excellent condition. Offers accepted.

Contact: Bernard Lee – leebern@msn.com (562-865-2547)

P/N 310309-501
P/N 310309-502

These fairings are new and priced @ $280.00 each or $525.00 for both. Priced elsewhere @ $362.69 each.

Contact: Bernard Lee – leebern@msn.com (562-865-2547)

Bushing P/N 914007-003 - 2- Bushings in the original package @ $35.00 each. Priced elsewhere @ $45.00 each.

Bushing P/N 914007-005
1-Bushing in the original package @ $59.00
1-Bushing loose @ $50.00
Priced elsewhere @ $69.00 each

Contact: Bernard Lee – leebern@msn.com (562-865-2547)

Access Covers P/N 3000-901 (2-available) - 1-without nuts attached.
Make offer. Contact: Bernard Lee – leebern@msn.com (562-865-2547)

For sale: Wing Covers (front & rear) for M20J. Great condition includes storage bag. Price (including shipping UPS ground, cont. US) only $279.00. Contact: Dwight Wilcox at: dw_ 1@verizon.net

Mooney gear actuator and parts FOR SALE

- Manual extension Spool and Cable for Plessey. Installed 2021, 206 hours.

Best offer.

Contact: CarolAnn Garratt, cagarratt@gmail.com or leave msg at 352-342-7182.

For Sale: Complete exhaust system from 1975 M20C. Excellent condition. Drilled for EGT sensors. Approximate 2,750 hours TT. Removed for Power Flow upgrade. $350. For information: 541-382-6752; 541-410-1121; jhl1csrs@yahoo.com

For Sale: Polished Hartzell 3 blade spinner P/N: A-2295-4P. Fits Mooney M20J and M20C with STC and other applications. Complete with bulkhead. $500. For information: 541-382-6752; 541-410-1121; jhl1csrs@yahoo.com