

The Mooney Flyer

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

June 2024



Editors

Phil Corman | Jim Price

Contributors

Jerry Proctor | Tom Rouch | Richard Brown | Parvez Dara | Terry Carraway

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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.



ON THE EDITOR LOOSE!

Mooney Flyer Fly-in to KPRB, June 28-29

We are hoping to make this the largest Mooney event of the year. [CLICK HERE](#) for more information.

Special Offer: The first 50 signups will get a FREE dinner at Cool Hand Luke.

Special Offer: The person who has referred the most signups will get 2 FREE passes to Sensorio.



The Mooney Roundup Fly-In Event in Paso Robles, KPRB, on **June 28-29**



Our last Paso Robles fly-in had 54 Mooneys, more than 125 attendees and included a FREE Tri-Tip BBQ.



This year we plan to blow out this event with the following activities:

Friday Evening: A Wine & Beer event in our hangar for everyone to meet & greet old and new friends. Plus, a short but entertaining presentation by The Mooney Flyer team. In addition, this event is FREE

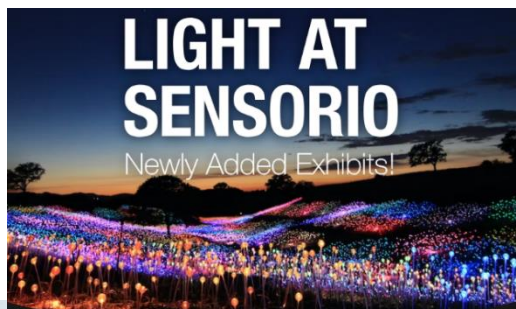
Saturday Morning: Hang out on the ramp and greet the Saturday morning arrivals while you admire each other's Mooneys. Possibility of 1-2 Presentations

Saturday Mid-Day: Around 11am, FREE tour of Antique Aero followed by optional visit to [Estrella Warbird Museum](#) (on the airfield).

Saturday Afternoon: Wine Tasting and Cave Tour at Eberle Winery (FREE) at 3pm or shopping/drinking downtown Paso Robles

Saturday Evening: Dinner (5:30 or 6pm) at [Cool Hand Luke's](#) (FREE for the first 50 registrants) , Followed by an AMAZING visit to [Sensorio](#), a one of a kind place after sunset.

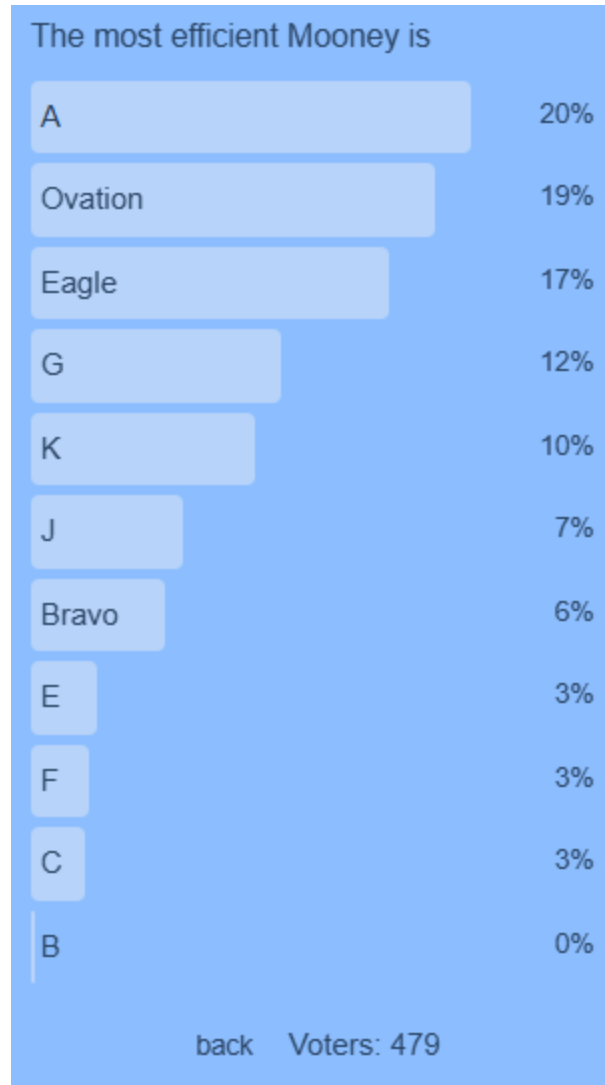
Rent a car from Enterprise by calling ACI Jet at (805) 596-0212. They will have your car delivered to the airport. You can also call Enterprise directly at (805) 239-0628. They are located at 2111 Golden Hill Rd, Paso Robles, CA 93446



Hotels: (Ask for Mooney Fly-In)

- Hampton Inn: \$309 / Two Queens & \$319/ a King
- Courtyard: \$209+
- Adelaide: \$255/night plus taxes
- La Quinta: 279.00 (Fri) 309.00 (Sat)





Next month's poll: "Mooney International Will"

[CLICK HERE](#) to vote

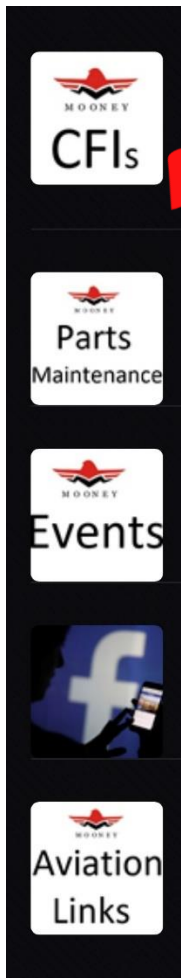
Mooney Instructors

CLICK HERE

for the most comprehensive list of Mooney instructors in the United States



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.





mail

Letters to the

EDITOR

TheMooneyFlyer@gmail.com

RE: Deadly Baggage Door Distractions - I'd like to disagree with you respectfully:

Please note that there is no aerodynamic change to the aircraft after a baggage door pops open. Don't panic and fly the airplane, fly the airplane, fly the airplane!!! Fly it normally with normal energy in the pattern and on final to the landing. Don't change a thing.

I was not in the habit of locking my baggage (for 20 years) when it opened in flight. I am unsure if it was not adequately latched or if the latch malfunctioned. It made a very loud "bang," and I immediately pulled the power. I thought it might have been a large bird, but no blood was on the windscreen or wings. I looked back and saw the blue sky through the baggage opening but could not determine if the door had departed the airplane. I slowed down to 100 knots and did a control check. Control was OK. It required a bit of rudder. I landed without any issue, replaced the door, and now (last

five years) I lock the door.

This British Mooney obviously landed, but with the detached door, it could have caused a problem if it had taken out the horizontal stabilizer.

Takeaway:

- When the baggage door opens in flight, you cannot tell from the pilot seat if it is still attached.
- Slow down, do a control check, and fly slower. If still attached, keep it attached.
- If attached, it will yaw, which would then indicate that it is still attached but may not be attached adequately, i.e., could still depart the airplane.

*Please note that there is no aerodynamic change to the aircraft after a baggage door pops open. **Not true.***

*Don't panic and fly the airplane, fly the airplane, fly the airplane!!! **Correct.***

*Fly it normally with normal energy in the pattern and on final to the landing. **Partly correct: Slow down (less energy), especially in a long body Mooney, which flies faster.***

*Don't change a thing. **Not true***

Luca B

Response from Richard Simile – *It's good that you now lock your baggage door. A few years back, there was another pilot who had a baggage door wrap around the tail and the guy made a*



precautionary landing in a field. Where you say slow down, my thoughts are as follows: I guess given point #1 this would be a valid precautionary step, however, the distraction is STARK and while slowing down is prudent to preclude the detachment of the door itself "IF" it was still attached, I am afraid that the slowing down might not be handled well in the heart of the major distraction. I actually witnessed a horrific crash and the death of 4 people because of a baggage door popping open on a Piper Lance in Houston, he slowed down to try to save the door and torque rolled the plane straight in, hence my comment to fly the aircraft normally. Witnessing that horrible accident caused me to go on a bit of a crusade and I have an interesting "Distractions" PowerPoint presentation regarding that very subject. And while I am very busy, I would be happy to give you that part of my presentation over the phone on our computers remotely. Where you say if the baggage door is attached: The basis of my comment was to promote the thought that it is a NONE-EVENT and not to react to the major distraction and to just fly the aircraft normally to an uneventful landing. While we will never really know, something abnormal happened to those poor guys in St Augustine FL. And while I never like to speculate about such things, it appears they stalled and spun straight in. Given that detail, I believe they got slow by design which placed them in that precarious situation, hence (Once again) NOT to lose energy. But I do agree with you that the door could present other problems if it departs. What I am saying is normal speeds in the pattern. I am also saying (without complicating it) that the yaw you experienced should be very manageable. In general, I am saying fly the aircraft normally and try not to react to the situation until safely on the ground. Fly the plane X3.

I have to stand by my statement because I don't think a lot of folks can handle the distraction and slower simultaneously.

Don't change a thing. Not true / I truly believe the safest thing to do is don't change a thing. I am not saying accelerate to cruise speed. I am saying these doors are left open pre-take off which means they open on take-off, A VERY CRITICAL TIME of flight, I am not of the opinion that people would handle this new distracting environment well, hence the energy margin for safety. You do bring up great points about keeping the door attached but it is a VERY fine line indeed!!



Remember, in an airplane,
you're always a student.

*A SUPERIOR AIRPLANE
DESERVES SUPERIOR SERVICE & SUPPORT*



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Cirrus Crash at Paso Robles (KPRB)

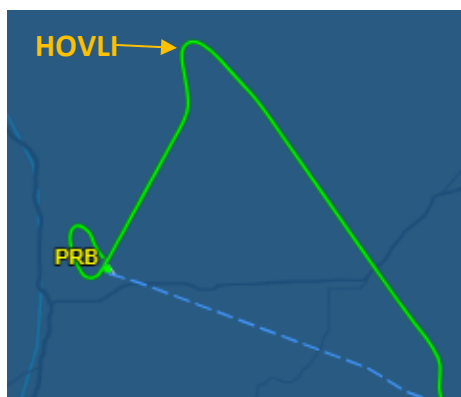
A Classic Case for Multiple Mistakes



N51FM, a Cirrus S22T suffered a terrible accident at my home airport in Paso Robles, CA (KPRB). The accident emphasizes the importance of understanding approach procedures, particularly when starting an approach from an IF/IAF with a racetrack. The pilot failed to follow correct procedures, which led to the crash. The PIC was flying with a CFII in the left seat and another pilot in the back seat. Fortunately, all the occupants survived. Apparently, the CFII appeared to be doing all of the radio work, so the PIC could focus on flying the approach.

A recurring theme in almost all crashes is that multiple mistakes are usually made in a sort of chain of errors, that eventually lead to a tragic ending. Additionally, it is likely that if an error had been remedied, the accident may have been averted.

N51FM was cleared to the IAF/IF at HOVLI. Approaching from the Southeast from that angle, the PIC should have executed the Procedure Turn. When asked by Oakland Center if the pilot was in the procedure turn, he responded affirmatively, but clearly from the FlightAware trace, the pilot never executed a Procedure Turn. The pilot is required to perform a procedure turn if instructed to do so by ATC or if he or she is entering the IF/IAF from a heading that requires a turn of more than 90°. **THIS WAS THE FIRST ERROR.**

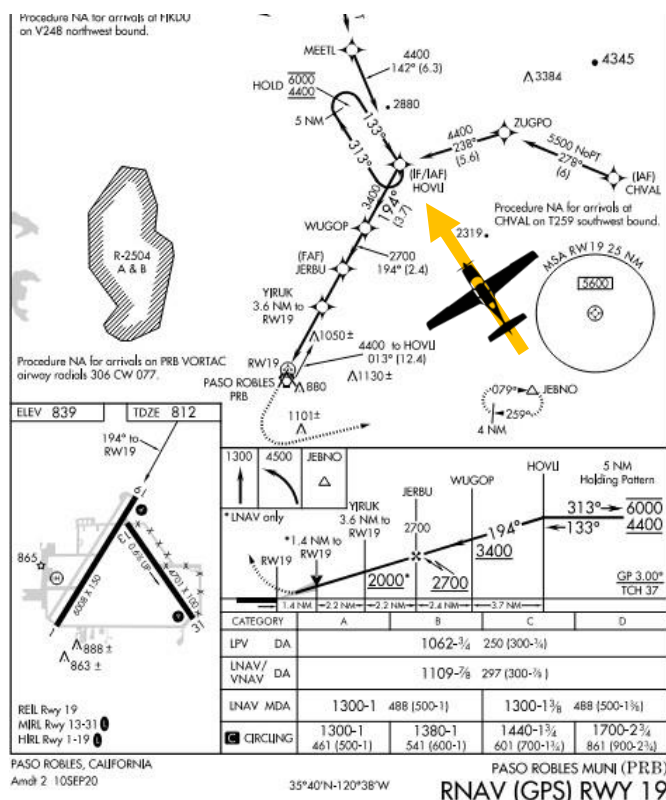


In my opinion, **THE SECOND ERROR**, was when N51FM crossed HOVLI 2,000' feet above the IAF and with a high airspeed close to V_{ne} , instead of an airspeed closer to the recommended 100kts.

As N51FM approached the next fix, WUGOP, it remained more than 1,500' above the fix and continued at excess airspeed, although it had slowed down a bit. This seems undesirable and indicative of an approach that is not under positive control by the PIC.

N51FM was high and fast at JERBU and then again at YIRUK. This is more significant as there was considerably less time to properly adjust for altitude and airspeed. **ANOTHER ERROR** in our opinion.

The ceiling was approximately 1,000' AGL as N51FM broke out and made visual contact with runway 19. So, this was not a difficult approach or landing. However, based on the altitude and airspeed, the pilot decided to perform a go-around. This is curious, because technically he should have executed a missed



approach. Instead, the pilot executed a 180° right turn to a right downwind for runway 19. He then contacted Oakland Center instead of remaining on CTAF, since he was executing a go-around. Hmmm.

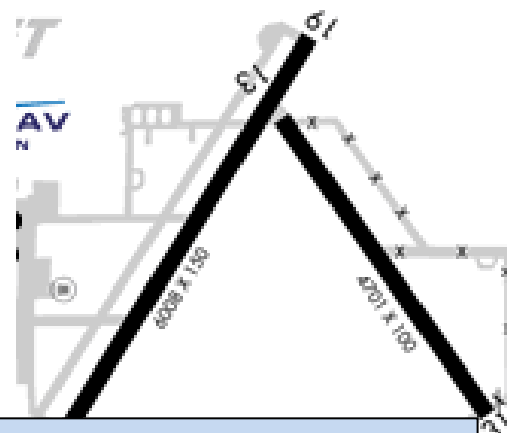
The pilot descended from about 300'agl and made a right 90° turn. He then indicated he was on a right base for runway 19, despite the fact that only left traffic is flown at PRB. Eventually, at a very low altitude, the pilot was lined up for Runway 13. According to a pilot eyewitness, the Cirrus was almost clipping the vineyards on that short final.

At the last minute, the pilot decided to not land on runway 13 and made a sharp 60° turn to attempt a landing on runway 19. At such a low altitude and slow airspeed, such a steep turn seemed unwarranted and dangerous. It turned out to be the end of that Cirrus.

You can see from the picture to the left that N51FM came nowhere close to making that 60° turn.

Thank goodness, all three souls onboard only suffered minor injuries.

[CLICK HERE](#) for a thorough presentation by Max Trescott on this accident analysis



One scary thing averted was that the ballistic parachute could have easily been deployed by accident on the ground. Given the explosive nature of such a deployment, that could have been serious.



After touching down short of 19, the aircraft slid across, then was inverted.





Jim Price
Co-Editor

Jimmy Stewart, Humble Hero

James Maitland Stewart was born in Indiana, Pennsylvania, on May 20, 1908, the son of Elizabeth and Alexander Stewart. He had two sisters, Virginia and Mary.

Jimmy, as he was known by those close to him and his fans, attended Indiana Normal School, Mercersburg Academy, and Princeton University. His plans for the future entailed working at the J. M. Hardware Co. store that was started by his grandfather and passed down to his father. His father always thought that if things didn't work out after Princeton, Jimmy could take over the store.



In 1932, Jimmy graduated from Princeton with a degree in Architecture. The world was in the Great Depression, and few if any jobs were available. He was awarded a scholarship for graduate studies in architecture for his thesis on an airport terminal design but chose instead to join the University Players. This was an intercollegiate summer stock company performing in West Falmouth, Massachusetts.

The show and Jimmy eventually headed to New York, where his roles became bigger and bigger. In 1935, Hollywood discovered him, and he signed a contract with MGM studios. During the 1930s, he made twenty-one feature films.

In 1938, he starred in Frank Capra's *You Can't Take It with You*, which won the Academy Award for Best Picture. Stewart then starred in *Mr. Smith Goes to Washington* and he received his first Academy Award nomination for Best Actor.

February 27, 1941, Jimmy won the Academy Award for Best Actor for his performance in *The Philadelphia Story*.



A New Role



The role Jimmy chose next was bigger than anyone could have imagined. In February 1941, to the dismay of MGM, Stewart became the first major American movie star to enlist in the United States Army to fight in World War II. He reported for induction as a private in the Air Corps on March 22, 1941.

Prior to his enlistment in the Air Corps, he had been an avid pilot. He had earned private and commercial certificates, and logged over 400 hours of flying time.



He owned a Stinson 105, and frequently flew it across the country to visit his family. The 105 is not a speedster, and top cruising speed is only 90 mph. Can you imagine how long it took him to fly to Pennsylvania and then back to California with those west headwinds?

When he enlisted, he was almost 33 years old. He wanted to serve as a pilot, but to qualify for Aviation Cadet Training, a candidate needed to be between 19 and 25 years old. So, he was assigned to the Army Air Corps as an enlisted man and was stationed at Moffett Field, Calif. During his nine months of training at Moffett, he also took extension courses thinking he would be able to get a commission. He completed the courses and was awaiting the results when Pearl Harbor was attacked on December 7, 1941. The Army Air Corps had a path to a commission plus wings, which required that the airman have a college degree and a pilot license. He qualified, so he applied. On January 1, 1942, Stewart received both a commission as a Second Lieutenant and Army Air Corps pilot wings.



Although he remained under contract to MGM, Stewart made no new commercial films. His public appearances were limited to engagements for the Army Air Forces.

Stewart had his heart set on becoming a combat pilot, but the Army did not want to send a movie star to combat, for he was more valuable as a recruiting tool. Shortly after he was commissioned, he was called to Washington, D.C., to attend President Franklin Roosevelt's March of Dimes rally. Now that the United States had entered the war, the image of a Hollywood star in uniform wearing silver pilot wings was a surefire recruiting tool for the Air Corps. The patriotic Stewart was determined to do everything in his power to get an operational assignment with a combat unit. When he returned to Moffett Field, he signed up for instrument and multi-engine training along with night and formation flying.

He was then sent to Mather Field near Sacramento for instructor training and qualification as a multi-engine instructor pilot. Lieutenant Stewart's next assignment was Kirtland Field at Albuquerque, New Mexico, where he flew the twin-engine Beechcraft AT-11. His role was to carry young bombardier trainees and their instructor over the practice ranges to drop dummy bombs on targets outlined in the desert. While his passengers were learning to drop bombs, Stewart was learning to be a bomber pilot.





In early 1943, he completed the Boeing B-17 Flying Fortresses course at Hobbs, New Mexico, to check out as an aircraft commander. He then went to the Combat Crew Processing Center at Salt Lake City, Utah, where he expected to be assigned to a combat unit and begin training for overseas duty. The other pilots in his class were recent graduates of advanced pilot training, and they received assignments to combat groups in the European Theater. Stewart, however, was assigned to Gowen Field in Boise, Idaho and the 29th Bombardment Group where he would serve as an instructor pilot.



Shortly after his arrival, Stewart was promoted to captain and given a new assignment as a squadron commander.



After he had been at Boise for several months, Captain Stewart heard rumors that he was either going to be taken off flying status and reassigned to the audiovisual service or be sent on a perpetual War Bond tour. He'd had enough! Up to this point he had not tried to pull rank, position, or status. He met with the group commander, Colonel Walter Arnold, and stressed his desire for an assignment to a combat group.

Arnold was sympathetic and he recommended that Stewart fill a vacancy in the 445th BG (Bombardment Group), which was currently at Sioux City, Iowa in their third phase of training in the B-24.



The Group's 703rd Bombardment Squadron needed an operations officer, someone



with considerable heavy bomber and command experience, and Stewart had both.



Although Stewart had been training new pilots in B-17s, his future would be in B-24s.



From Sioux City to Great Britain

Stewart was an operations officer for only three weeks before he was designated Squadron Commander.

By November 1943, the 445th Bombardment Group had completed all its training requirements for operational service and was ready for transfer overseas to RAF Tibenham in Bomber country, East Anglia, England.

The 445th Bomb Group



After the 445th BG arrived at RAF Tibenham, the men did not go right into combat. The Army Air Forces had been in combat for almost two years and had learned many lessons. One of the lessons was that newly arrived groups needed a shakedown period of theater indoctrination before beginning operational missions.



The 445th was assigned to the 2nd Combat Bombardment Wing, commanded by Brig. Gen. Edward J. "Ted" Timberlake, the youngest general officer in the Army. Timberlake was the most experienced B-24 commander in the 8th Air Force and arguably the most respected of the command's wing commanders.

For more than two weeks the 445th flew practice missions to make sure that all crews were ready for combat. Captain Stewart and his operations officer flew with each of the crews in the squadron and talked to each member to make sure they knew their jobs and were ready for combat.

Combat

On December 13, 1943, Captain Stewart led the group's high squadron to bomb the U-boat pens at Kiel. His next mission was to Bremen on December 16, where he flew as lead pilot for the 445th Group. On Christmas Eve Stewart again led the group, this time on a mission against German rocket-launching sites in the Pas de Calais. With more than 2,000 bombers and fighters participating, it was the largest Eighth Air Force mission of the war to date.

A Crucial Decision at Ludwigshafen



On January 7, 1944, the mission was to bomb Ludwigshafen. Captain Stewart was leading the 445th Bomb Group's B-24s and as they were departing the target area, he realized that the 389th Bomb Group that he was following was 30 degrees off course. He called the leader and informed him of the error. However, the lead aircraft commander and navigator insisted they were on course. Stewart knew that the course was taking both groups away from the protection of the main formation. Nevertheless, he advised the other group leader that he was sticking with him, knowing it could be disastrous.

As Stewart feared, the German radar operators vectored several squadrons of fighters to attack the B-24s. They were about 30 miles south of Paris when 60 Luftwaffe fighters came in for the attack. The 389th lead pilot was shot down. Stewart ordered his group to close up their formation for protection. Stewart's formation did not lose any planes, but 17 B-24s went down that day. Stewart's decision to stick with his sister group rather than abandoning them to their fate in spite of the navigational error, saved the groups from complete annihilation. Colonel Milton W. Arnold, the 389th commander, sent a letter to 445th commander, Colonel Robert H. Terrill, commending Stewart for his actions. Shortly after the mission, Stewart was promoted to major.



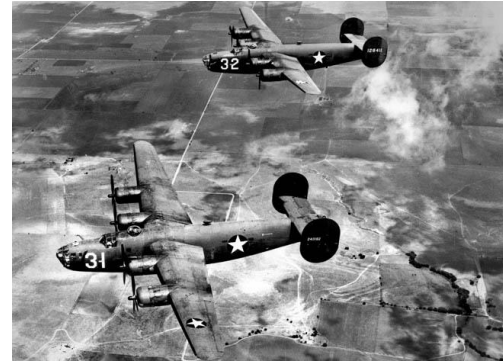
Maj Gen James H. Doolittle

The day after the Ludwigshafen mission, the Eighth Air Force command structure underwent some changes. General Carl Spaatz, who had taken command of the new U.S. Strategic Air Forces, Europe, decided to send Eighth Air Force commander Ira Eaker to the Mediterranean and bring Maj. Gen. James H. Doolittle to England to take command of the Eighth Air Force. Previously, bomber crews had to fly 25 missions to earn the right to rotate home. Because of great losses, Doolittle increased the number of missions to 30, and that earned Doolittle a great deal of disdain.



“Big Week”

In early 1944, General Spaatz approved a plan for Operation Argument, a massive week of heavy bomber attacks on targets in Germany that has since come to be known as “Big Week.” On the opening day of the operation, Major Stewart flew as deputy lead of the 2nd Bombardment Wing. The mission was planned for blind bombing using radar, but the weather over the target was suitable for visual bombing conditions, so Stewart moved into the lead. He was awarded a Distinguished Flying Cross for the mission. Major Stewart led the 455th Bomb Group in two other missions during the intense week, a mission to Gotha and a third to Nuremberg



Stewart’s Stardom Within the Air Corps

During three months in combat, Jimmy Stewart had achieved a reputation not only in his squadron but also in the group and wing. To many of the combat crews, he had become a lucky charm. Missions on which he led seemed to be successful, meaning that bombing results were usually good, and casualties were generally light. He was popular with the officers and enlisted men under his command. But rumors began circulating that he had become too important to risk on missions and that he was going to be transferred and perhaps grounded. In early March 1944, the Eighth Air Force began a series of missions against Berlin. The missions were hazardous and the first two cost the Eighth Air Force more than 1,000 men. On March 22, Major Stewart, led the 2nd Bombardment Wing to the most heavily defended target in Germany. It was his 12th combat mission.



453rd Bombardment Group

The rumors of Stewart’s transfer were true, although his days of combat flying were not completely over. He was relieved of command of the 703rd Bombardment Squadron and transferred to the 453rd Bombardment Group at RAF Old Buckenham, 2 miles southeast of Attleborough, Norfolk, England. There, he assumed the role of group operations officer. On March 30, 1944, he became the assistant to Colonel

Ramsey Potts, the group commander.

Major Stewart’s new assignment put him in a close relationship with another of the Liberator superstars, Ramsey Potts. After leading his squadron on the infamous low-level mission against Ploesti, Potts had risen to the rank of colonel and was given command of the 453rd Bombardment Group two weeks before Stewart’s transfer when the group’s original commander was shot down. As the group operations officer, Major Stewart was responsible for all of the details of planning the group’s participation in the missions to which it was assigned and for briefing the crews for each mission.



Stewart's new assignment was based on merit rather than fame. Potts did not ask for him. The group's previous commander and operations officer had both been lost only a few weeks before, and morale in the group was correspondingly low. Stewart had a good reputation as a combat leader and as a commander who was popular with his men, officers and enlisted alike. Timberlake personally picked Stewart for the assignment to complement Potts.

Over the next few weeks, the two new arrivals worked to bring the group back up to par. As operations officer, Stewart was not expected to fly every mission, but he often went up in the group assembly ship to look over the formations as the group was assembling and occasionally flew missions as a member of a combat crew. Unlike the combat crewmembers, he had no quota of missions to fly before he could be rotated home. As a staff officer, he was to remain overseas as long as he was needed. The Allies were getting ready for the Normandy invasion, and the mission tempo picked up. Stewart received credit for 20 missions with the 445th and 453rd Groups.

“We Hit Berlin, Didn't We?”

Members of the media were well aware that he was in England serving as a squadron commander with a Liberator group and were anxious to interview him. Stewart refused all interviews and generally avoided contact with the press. The Army, however, took advantage of his notoriety by issuing press releases announcing his promotions and assumptions of new positions. When the media asked Stewart if the mission was unusual, his response was, “Unusual? We hit Berlin, didn't we?”

Transferred to Timberlake's Staff



Sometime in June, Jimmy was promoted to lieutenant colonel. Shortly afterward, on July 2, he transferred to 2nd Combat Bombardment Wing headquarters to become Timberlake's executive officer.



There for the Duration

With his move to headquarters, Lieutenant Colonel Stewart was no longer flying in combat, but as a staff officer he would be there for the duration. He frequently flew with the 389th Group, which had become the 2nd Bombardment Wing's pathfinder group.

Also, Stewart occasionally went on missions with his two previous groups and the 20th Bombardment Wing. He did not receive credit for any of those missions.

When Stewart transferred to Timberlake's staff, rumors started that he was being groomed for command of his own group. Although Eighth Air Force commander Doolittle would say later that if the war in Europe had continued, Stewart would have become a group commander. It never happened. In September 1944, Timberlake took command of the 20th Bombardment Wing, which included his old group, the 93rd, and Stewart went with him. After serving for a few months as Timberlake's executive officer, Stewart returned to the 2nd Bombardment Wing as operations officer.

Promotion to Colonel



In February 1945, Stewart was promoted to full colonel, and became the 2nd Bombardment Wing's chief of staff under Colonel Milton Arnold. Stewart had risen from buck private to full colonel in only four years. It was a record achieved by few men.

Colonel Stewart was still with the 2nd Bombardment Wing when the war in Europe came to an end. Timberlake was replaced by Colonel Milton Arnold, and Stewart had assumed a position as Arnold's operations officer. In February 1945, Stewart became Arnold's chief of staff. Victory in Europe (VE Day) was May 8, 1945, and three days later, Stewart replaced Arnold as commander of the 2nd Bombardment Wing.



Continued Service After the War

With the war ended, Colonel Stewart's new role was to preside over the demobilization of the wing and movement of its personnel back to the United States for separation or reassignment to the Pacific. He returned to the United States aboard the ocean liner Queen Elizabeth.

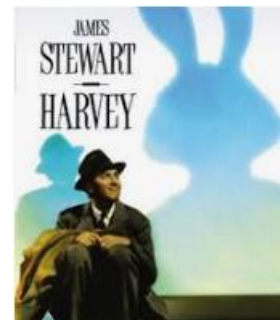
After the war, Stewart remained in the U.S. Army Reserve. In 1947, when the Air Force became a separate service, he transferred to the Air Force Reserve and was assigned to the Strategic Air Command as deputy director of operations.

Back to the Movies

Following the war, Jimmy's first post-war movie was Frank Capra's *It's A Wonderful Life*. His role earned him an Academy Award nomination. Initially, *It's a Wonderful Life* was a box office bust, but it has become one of the most beloved Christmas holiday films in Hollywood history. It was also Stewart's and Capra's favorite film.



During the 1950s Jimmy broadened his roles and collaborated with directors such as Alfred Hitchcock, Cecil B. DeMille, Billy Wilder, Anthony Mann, John Ford, and Otto Preminger. In 1955, Stewart was Hollywood's top male actor and in the top five for several years. He received another Academy Award nomination for the film *Harvey*.





Marriage

In 1949, Jimmy married Gloria Hatrick McLean. They had twin daughters, Kelly and Judy, and with Gloria's two sons, Michael and Ronald, Jimmy settled down to family life.

Stewart's success continued into the 1960s and 1970s with *The Man Who Shot Liberty Valance*, *Shenandoah*, and *The Flight of the Phoenix*. He also had his own television series *The Jimmy Stewart Show* and played the recurring role of *Hawkins* in the mystery movie of the week.



Promotion Denied

In 1957, Jimmy Stewart was nominated for promotion to brigadier general by President Dwight Eisenhower. However, Maine Congresswoman Margaret Chase Smith opposed his promotion. She noted that Stewart had only received 39 days of training since entering the Reserves. Among those officers who'd been passed over was Smith's legislative aide, a USAFR colonel like

Stewart, who claimed to have recorded 90 days of training in a year. Senator Chase believed Stewart was actually being promoted for having starred in 1955's *Strategic Air Command*, a loving portrait of the USAF in which Stewart plays a WWII veteran USAFR officer and professional baseball player in civilian life, who has been recalled to active duty in time for the transition to all-jet bombers. Like *Top Gun*, which increased U.S. Navy enlistments, *Strategic Air Command* was credited with increasing USAF enlistments.



Brigadier General



Two years later, after he was reassigned to the Air Force Office of Information in the Pentagon, Stewart's promotion was approved. In 1968, just before his retirement, Stewart flew one last combat mission as an observer on a B-52 mission over Vietnam.

The following year, his stepson, Marine 1st Lieutenant Ronald McLean, was killed in Vietnam.



President Ronald Reagan promoted Stewart to the retired rank of Major General. His



Jimmy Stewart pins 2nd Lieutenant bars on Marine Lieutenant Ronald McLean's uniform.

military decorations included two Distinguished Flying Crosses and four Air Medals.

Total Military Service: 27 years, 2 months, 9 days

The Humble Jimmy Stewart



Jimmy Stewart not only shunned wartime publicity, but after the war he refused to discuss his military experiences publicly or with the media and forbade any mention of it by his publicists. He also refused to make any war movies, expressing his view that it was “not the same.” He made several movies with aviation themes, including *Spirit of St. Louis*, about Charles Lindbergh’s historic flight across the Atlantic.



Jimmy Stewart maintained contact with many of his wartime friends and participated in reunions. When his health began to fail him, he went into semi-retirement. He retired permanently from public life after Gloria, his beloved wife of forty-five years, passed away in 1994.

James Maitland Stewart died on July 2, 1997

He will be remembered as a talented actor, brave military hero, loving husband, good father, and a giant among men. He leaves behind a legacy of honesty, hard work, and strong values.

He was a good man, a patriot, and had a wonderful life. Jimmy Stewart really earned his wings!



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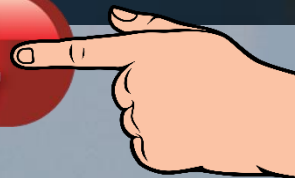
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A 760 Mile Round-Trip is “In the Neighborhood”

By Richard Brown

This might be my most rewarding flight ever. My wife and I walked into my parent’s house in Queen Creek, AZ on Mother’s Day morning, and I said to my surprised mom, “We were in the neighborhood so thought we’d stop by.” She gave me a smile that said, “I’m so glad to see you,” with just a touch of “yeah right” for the “in the neighborhood comment.”



I hadn’t been to see my folks in Arizona in 11 months. Saying that aloud sounds ridiculous. We specifically bought the Mooney because I wanted a plane that was fast enough to visit family in Arizona, Utah, and Idaho. And also, because it is a beautiful airframe that is a ton of fun to fly. The fact that I hadn’t been to Arizona for 11 months seems almost sacrilegious.

It isn’t that I didn’t see my parents in the previous 11 months. We flew our Mooney to two weddings and a funeral and spent time with them there, but those were all in Utah, not Arizona. Originally, we were going to fly to Idaho to see my oldest son, and then stop by Salt Lake and St George on the way home to visit more family for Mother’s Day weekend. But, as it got closer, I told my wife I really felt like we should visit my parents.

My wife, being the amazing woman that she is, gave up visiting her daughters and grandkids in Utah so I could see my mom. I can’t begin to tell you how wonderful my wife is. I talked with my sisters in Arizona and worked it out so that I could surprise mom and dad. I figured that we could just do it as a day trip; flying out in the morning and back in the evening.

Without the Mooney, I would never consider making a day trip out of it. Who wants to spend 12 hours round-trip in a car and visit for a few hours? On the other hand, it’s only a 4-5 hour round trip in the Mooney. Here’s my rationale for the trip. If my parents lived in San Diego, I wouldn’t think twice about driving there to visit on Mother’s Day and driving home the same day. It would be at least a two-hour trip each way, which could easily stretch into 2 ½+ hours each way . . . with traffic.

Essentially, it is the same amount of time it would take to fly to Arizona and back. There is the added bonus that the views on the trip are much better from the air, and I don’t have to deal with all the other drivers on the road. All I have to do is sit back and watch the world slide beneath me.

Here in the Los Angeles area, we are well into what is affectionately referred to as “May Gray.” There is a marine layer almost every day from May through June, (June Gloom), that typically burns off by mid-day to early afternoon. I filed an IFR flight plan for Sunday morning. I looked at the forecast Saturday evening to let my sister know what time we would be arriving.

The ceilings at 7am were supposed to be about 100’, way too low for me to even consider a departure. By 8am, they were forecast to lift to about 900’, which is typical. 900’ is high enough for me to take off and have plenty of time to transition to instruments before going into the muck. It is also high enough for me to return to Fullerton (KFUL), if needed, and fly the approach. I told my sister we would be taking off about 8am and allowing for a crosswind enroute, we would be there about 10:30am.

Sunday morning, I woke up at 6am and the first thing I did was look out the window. I could clearly see the hills to the east. It wasn't a low overcast. That doesn't always mean that it isn't much lower to the west, so I checked the weather at KFUL, which was reporting overcast at 1,200'. Perfect.

1800wxbrief had sent me a text about an expected change to my flight plan so I went online and amended my filed plan accordingly. Sometimes it works, and I'm told "As filed," when picking up my clearance, and sometimes it doesn't. But it's always worth a try. I had the plane fueled earlier in the week, knowing we would be there before the fuel truck was running. I don't mind pumping my own gas, but KFUL has a deal if you are a member of the Fullerton Airport Pilot Association (FAPA), and I get self-serve prices from the truck. When I learned that little nugget of information, I paid for lifetime membership, which has more than paid for itself in fuel discounts and convenience.

Pre-flight, loading up the plane, pulling it out of the hangar, climbing in, starting up, and taxi put us in the run-up area just before 8am. After run-up and configuring the plane for departure, I called Ground Control for my clearance.

Me: "Fullerton Ground, Mooney 1015Echo, southeast run-up with Mike, like to pick up our IFR.

Ground: "Mooney 1015Echo good morning, Fullerton Ground. Cleared to the Williams Gateway airport. Upon departure, turn left heading 120, radar vectors Seal Beach, then as filed, climb and maintain 2,000, expect one-one thousand one-zero minutes after departure, SoCal departure frequency 125.35, squawk 7257."

Ah, those beautiful words "As filed." Amending my flight plan to the expected this morning, worked this time. I repeated back the clearance, punched in the squawk and dialed in the first assigned altitude into the G5. With those tasks complete, I told Ground that I was ready to taxi.

We taxied to the end of the runway, but before we came to a stop to call tower, he cleared us to depart. We took off, and at about 300' AGL, Fullerton tower handed us off to departure. It was a quiet morning in the skies over the LA Basin. I realized how quiet it was, when after checking in with departure, we were told, "Climb maintain 6,000," followed shortly after by, "Climb maintain 11,000."

When briefing an instrument departure, I always pay close attention to the reported ceilings and say out loud, "Ceilings are xxxx. We should be going into the clouds around xxxx." In this case, the ceilings were reported at 1,400', so mentally I was preparing myself to be in the clouds by about 1,200' or so. I talked to myself out loud as we climbed and approached the base of the clouds, to make sure I was on the instruments before everything faded away.

"There's 1,300... there's 1,400..." As things started to fade away, I was looking at the instruments. "So, bases are about 1,400, no 1,450..."

It was a very thin layer and we quickly started to see the clouds get brighter as we got closer to breaking out. Just over a minute after going into the clouds, we were suddenly in the brilliant blue sky looking down at a solid layer of white. What looked like a blanket of cotton that was hiding the coastline, stretched from the mountains to the north and east as far west and south as we could see.



As we climbed higher and could see the Inland Empire, I was surprised to see the solid layer extended all the way east to the San Jacinto Mountains and south to Palomar Mountain. Typically, it is just patchy in those areas, but today, it was like someone poured a huge bowl of fluffy white cream in all the low-lying areas. It was beautiful.

We were on V64 passing south of San Jacinto over Idyllwild but could see to the north. It looked like there was a dam in the Banning Pass holding the clouds back before they could spill into Palm Springs. They stopped right there at the pass. We settled in for the flight and at one point, ATC called out traffic to our 9 o'clock.

SoCal: "November 101Sierra-Echo, traffic 9 o'clock and about 5 miles, southeast bound. Altitude indicates one-zero thousand four hundred, showing a code of twelve fifty-five. Could be a firefighting tanker."

I thought when I painted our airplane and changed my tail number from 78878 to 1015E, this would ease the ATC confusion. However, I suppose they are used to seeing two letters on the end of a number and their brain tells them the "5" is an "S." I hear that off and on. I figured he was talking to me but wanted to be sure.

Me: "Was that for 1015Echo?"

SoCal: "Yes sir, 1015Echo, traffic four miles now, southeast bound, one-zero thousand four hundred indicated, unverified showing a code of 1255. It's possibly a firefighting tanker aircraft."

Me: "Traffic is insight, 15Echo."

SoCal: "Okay 15Echo, thanks."



Sometimes it's hard to spot the little planes that ATC calls out to you, but a huge 737, coming right at us, was not difficult. He continued his descent and passed just below and in front of us. It was fun to watch. The rest of the flight was uneventful. Somewhere west of Blythe, they gave us an amendment to the routing, putting the Phoenix VOR as our last point before Mesa-Gateway (KIWA). I told my wife I didn't know why they would give that to us because we are never going to fly it. Depending on which direction Sky Harbor (PHX) is using for landing, that routing would put us right in the way of either their arrivals or departures. Every time we have flown IFR from SoCal to Mesa-Gateway (IWA), ATC always breaks us off the airway at the Buckeye (BXK) VOR and assigns vectors the rest of the flight to keep us south of the traffic in and out of PHX.

Sure enough, as we approached BXK the approach controller had new instructions.

ATC: "November 1015E, depart the Buckeye VOR on the 100-radial outbound."

I was expecting this and already had my response ready. Knowing he was going to assign the radial and that with GPS only in the plane, I couldn't accept it.

Me: "We are GPS only. Can we get a heading off of Buckeye?"

You could hear the sigh and almost feel the eyes rolling out of the radio.

ATC: "Mooney 15Echo, depart Buckeye heading of 100 and you can expect the visual approach one-two right."

Me: "Depart Buckeye heading 100, we'll expect the visual one-two right, 15Echo."

Step downs and headings followed until we were cleared for the runway 12R visual approach.

My sister picked us up and we drove to my parents; which brings us to the first part of this article, where I told my mom we were "in the neighborhood."

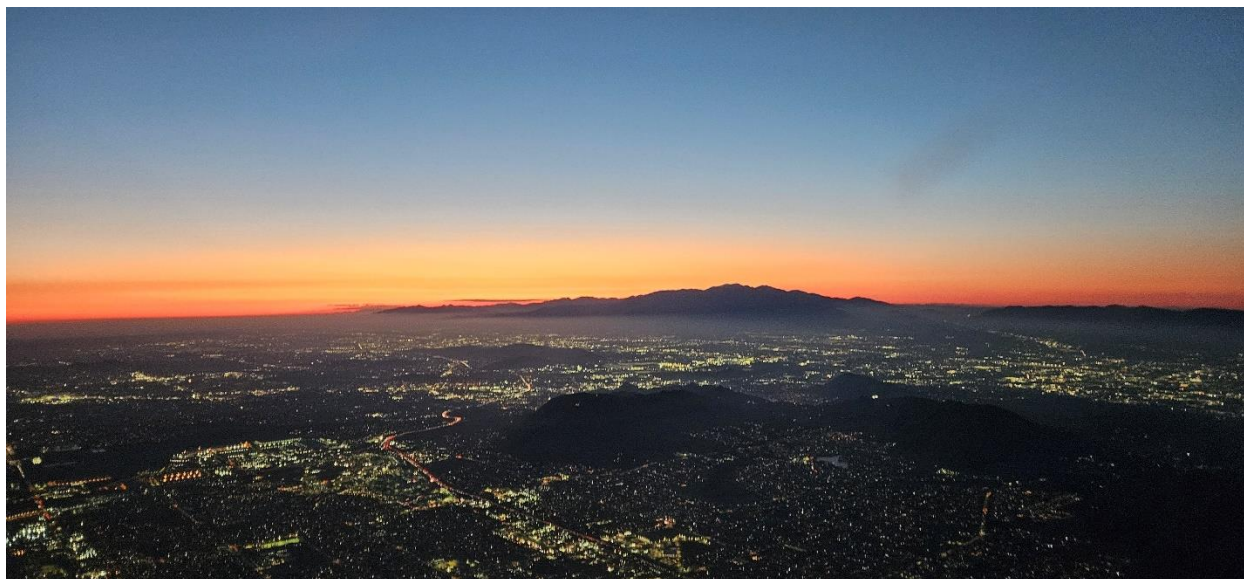
We had a wonderful visit, just sitting around and talking. Mom mentioned how long it had been since we were at their home. I scolded myself for letting the months slip by without getting there.

Eventually, the afternoon got late, and it was time to go. Hugs were given, pictures were taken, and my sister drove us back to the airport. I had an inner resolve to visit more often.



Summer is already knocking on the door, but as we climbed in the plane at 6pm, it had cooled down to 90°F. It felt pleasant, compared to the times I've had to wear gloves to pre-flight because it was 110°F and the plane was too hot to touch with bare hands. We brought my homemade air conditioner along on the trip and enjoyed a cool breeze on the back of our necks and heads as we taxied, took off, and climbed to our cruising altitude of 10,500'. Up there, it was a nice 47°F and we no longer needed the AC.

We chased the sun westward, watching it dip behind San Geronio, as we passed Twenty-Nine Palms and approached Palm Springs. The air was smooth with just a touch of haze down low. I let the airspeed build in the descent, making up for some time in the climb. I waited until about 5,500' before starting to pull back on the throttle as the indicated airspeed climbed to 178mph and the "lady" started warning me of "Airspeed, Airspeed..." Before the GFC500 was installed, I would let it go to 180mph. (V_{ne} (never exceed speed) is 189mph), before reducing power, but a couple more mph isn't worth listening to her squawk at me.



Looking down at the freeways there was traffic everywhere. A string of solid white lights coming towards us and solid red going away. Boy, was I glad we were flying!

Due to staffing issues, Fullerton's tower closes at 2:30pm Fri-Sun, so we stayed north of the field to enter a right downwind for runway 24. Two hours and thirty-three minutes after departing IWA, we were on the ground at FUL and taxiing back to our hangar. I was surprised when I looked at our flight time and saw there was only a difference of one minute between the trip there and the trip back.

It only took 5:05 of flying to spend Mother's Day with my mom, a visit that never would have happened without our Mooney Time Machine. I said earlier that this was perhaps my most rewarding flight ever. I have five sisters and no brothers. When I gave mom a tear-filled hug before departing, I could hear the tears in her voice as she said, "I'm so grateful I have a son, and I'm so glad that it's you." That moment will stay with me forever.



As always, thank you for taking the time to read. This is a special article that marks four years Phil and Jim have been putting up with me and letting me write for their excellent magazine. It's a pleasure to share my adventures with all of you. 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@intotheskyl.com. If you're ever in Southern California and want to meet up, let me know.



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AVOIDING THE FIRE BREATHING DOG



When asking for WX deviations to avoid the Fire Breathing Dog, only ask for left or right. Try your best not to ask for 10 degrees, 20 degrees, 30 degrees, etc. This way, if the controller gives you "Deviations left or right of course approved," you have total latitude to go full left or right and avoid everything without having to ask again. I know that most Mooney folks do it that way. But for those that don't, please try to NOT give yourself self-imposed deviation limitations while AVOIDING THE FIRE BREATHING DOG.

When you're Hot, you're Hot When You're Not, you're Not*

By Jerry Proctor, MAPA Safety Foundation



*Song by Jerry Reed. For those whose memory doesn't go back that far, this is a funny song about gambling. However, for today, let's make it about flying; more specifically, during a check ride or a Flight Review/IPC.

I know the vast majority of Mooney pilots are always HOT! Meaning, taking an Flight Review or an IPC or even a check ride is like a walk in the park. You are ON, Baby! So, for those few who may be new to the Mooney world, or something tragic happened like your dog ran away, this is a guide on how to fake it and or slide through when being tested.

Now, why write such an article? I get to observe lots of folks in the hot seat, and I've been there for all of 50 years. Sometimes, I am on the second line of this article's title. As such, I thought I would share some tips on how to squeak by during a test with an instructor on board.

I am going to skip the usual preflight and buttering up of your instructor. You know, donuts, hot spiked coffee, or tickets to the Eagles concert. Of course, buttering up is a key component, but save that for another article. So, there you are, you just took off and you don't really feel you've GOT IT today. Hmmm, you say to yourself, "If I tell the instructor that I ain't hot today, that won't leave a very good impression. You might do that and then call it a day. No self-respecting CFI will ding you. He or she might wish you would have said that before takeoff. Back to the usual nutty article.

Your first in flight action is, smile. Smile like, "Hey I got this." It will help. Second, say you want to do some initial maneuvering to put this plane on like an old rucksack. Try this by saying you are going to do some clearing turns or something. Clearing turns are always an A+ on the scribble sheet. Now the key here is, be very deliberate, but not glacially slow.

Now, volunteer to do steep turns. What the heck did I just say?? Yes, I know, pilots shudder facing this maneuver. However, you just gained more points for jumping right in and will thus impress the CFI again. How are you going to do this? Simple, cheat. Ok, I shouldn't use that word but there are ways to do them, that frankly makes them easy. I learned this trick while flying in SE Arizona where mountains are scattered all over. Trying to align a spot on the horizon for a rivet on the cowl is going to result in a really messed up steep turn. First, do your clearing turns, and then get very stable and trimmed. Slowly roll in to the turn and bump up the power a twist; maybe a tap of the elevator trim, and while in the turn press the appropriate rudder. Peg the HIS at 6-7 degrees nose up. I say again, 6-7 degrees nose up. With neutral rudder trim, you can do steep turns all day long within standards. If the HIS shows 4 degrees or less, pull it up. If it says 8-10 you are climbing; ease it down to 6-7. You know you are going to get that satisfying bump! The CFI will think you are a Rock Star. Now make sure you set your heading bug first and roll out about 20 degrees before your cardinal direction. As soon as you roll out, push the nose down and reduce power. Your CFI will go, "Ahh, finally someone that can fly."

Reset and do it the other way. Be slow and deliberate and remember that heading bug. I like about 100-110 kts, or in turbos 17”.

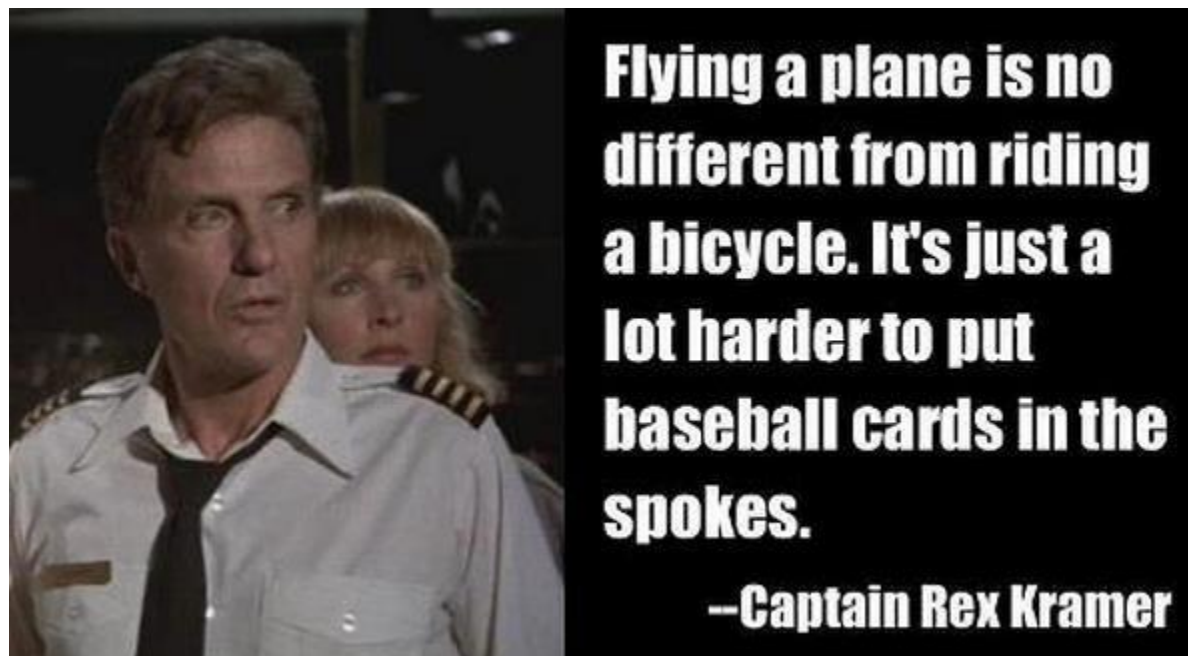
Now keep that smile and say, “Okay, how about I do some slow flight.” Another shaky component but remember he or she is impressed so far. They are thinking this guy or gal is a go getter. Now in the last few years, the FAA has helped you cheat here. Back in the Hap Arnold days, slow flight was torture. You slowed to just above a stall and kept the dang horn blaring the whole time. There you were, probably behind the power curve, horn honking and losing altitude. The CFI is thinking, “You suck.” To avoid this four-letter word, pick your direction and keep on it. Slowly reduce power and maintain altitude. Practice this with your plane beforehand, so you know when the beeping happens. The KEY here is, do not lose altitude. Trimming helps, but do NOT lose altitude as you slow. Let’s say you hear that beep at 60 KIAS, you should immediately add 3-4 inches of Manifold Pressure. The beep will go silent, which is where the FAA lets you cheat and do your slow flight with little turns, etc., at 4-5 kts above that beepin’ 60. Easy as pie.

IF you get behind the power curve and you are nearly firewalling the power, then, Grasshopper, you should confess. Say, “Hey Boss, I got behind on that one and I know I can do better.” Confessions are good for the soul and sometimes, CFIs like to hear them. Redo the above and you are now on your way, keeping it trimmed the whole time.

OKAY. Seldom do my readers get past my first paragraph, so I had better quit for the few that are still hanging on. Stay tuned for next month when I will give you part two of how to Chea...er nail your flight test.

If you want to fly with me at a MAPA Safety Foundation event, ask for the guy that is an expert at squeaking by. They know who that is. Regardless, check your calendars and come see us and you will go away a better pilot. That is for certain. Then, you won’t have to, um, say it with me... cheat!!

Jerry Proctor, Mooney Safety Foundation



O-Ring Seals and other Many Other



Components, are NOT Eternal

On May 24th, the **Australian Transport Safety Bureau (ATSB)** issued a warning over perishable seals after an engine fire led to the fatal crash of a Mooney at Luskintyre.

VH-UDQ was being flown on approach to Luskintyre Airfield in October 2022. The engine caught fire and the pilot attempted an emergency landing on runway 30. However, the aircraft crashed short of the field after striking trees. The pilot survived the impact but died of injuries related to the post-impact fire 10 weeks later.

“The ATSB investigation determined fuel leaking from an age-affected O-ring seal of the engine-driven fuel pump ignited and caused an engine compartment fire,” said ATSB Chief Commissioner Angus Mitchell.

“A leak from the pump outlet fitting that supplied the engine fuel control unit was identified, and analysis indicated the O-ring sealing that fitting had deteriorated with age.”

Lycoming & Continental service schedules call for an overhaul in 12 years or 2,000 hours, whichever comes first. The FAA’s AC No: 120-113 indicates, “Some engine manufacturers allow for time in service interval extensions based on how an operator operates and maintains its engines, while other engine manufacturers do not.”



According to Australian investigators, the engine in UDQ had last been overhauled in **1993** and was operating on condition because it had expired on calendar [in 2005]. **This engine had not been overhauled in 29 years.**

The crash has prompted the ATSB to issue safety advisory notice [SAN AO-2022-049-001](#), which draws attention to proactively replacing O-ring seals fitted to engines and engine components that have been in service for a significant period.

“Inspect the uninspected,” Mitchell said.

“If aircraft records identify elastomer–rubber–based–type components that have remained undisturbed for significant periods of time, take a proactive approach – replace components such as O-ring seals before they deteriorate to the point of failure.”

In response to this accident, CASA proposed to review AWB 02-001 relating to on-condition maintenance, and AWB 85-004 regarding aircraft piston engine calendar time overhaul.

The full investigation report is on the [ATSB website](#) and a video outlining the incident is [available on You Tube](#). Reference [Flying.com](#)

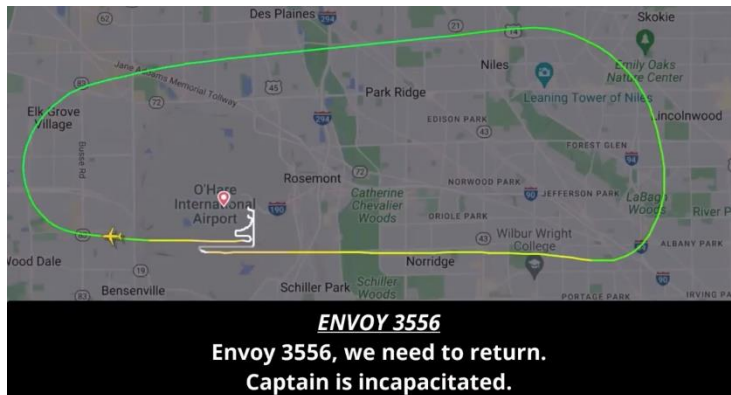
I READ THE NEWS TODAY, OH BOY...

by Parvez Dara, MD, ATP, MCFI, AGI



I read the news today. Oh Boy! You can almost hear the drumbeat behind those lyrics by Lennon and McCartney.

And yet it was! I did read the news today and in my mind the exclamation of “Oh Boy!” followed swiftly. An airline pilot was incapacitated immediately upon takeoff of an airliner from the airport. The news was rather sad...



Imagine the plight of the copilot and the calm, quiet ignorance of the passengers in the cabin as the drama unfolded and the copilot informed ATC of the incapacitation of the pilot and guided the aircraft back to the airport safely.

Stuff happens when we merge the immutable laws of physics, the vagaries of the mechanized world, and the frailty of the human condition. We assume all's well, as

we consume the news. But then as easily as the bitter pill we swallow, we forget. Our mind cleanses itself of the horrible distaste. But that pill needs to be swallowed and the taste remembered for all its bitterness.

We stop and ask, “Why?”

There are many reasons undergirding such an eventuality. Preexisting human conditions and other such hidden maladies. But there also might be triggers that spark such a calamity. In the interest of such a thought, I charted a course to determine such a trigger.

How does one look for a needle in that haystack?

I solicited help from a friend. Both of us sport a Garmin Aviator watch on our wrists. So, I asked Craig to send me his accrued data from a recent flight in which he piloted in his T206H. I picked off some of my data with special reference to events that occurred during my GA flights when piloting the Bonanza. The results seem to speak for themselves.

The two pervasive elements during a flight that create agitation to the inner machinery of our steady heartbeat are, Stress and Anxiety. Both these enemies rise above the calm surface to muddy the quiet. Both cerebral inputs are triggered by a sense of fear, fright, unexpectedness, or venture into the unknown. This leads to a release of adrenaline from our adrenal glands. In seconds, this surge bathes the blood that traverses to the heart and makes it jump into action. The heart rate rises, the blood pressure goes up as the arteries constrict to pump more blood to the brain, which receives its supply of the agitator. The brain is fully alerted, and the eyes are wide open. The senses of sound and feel are accentuated, and a trickle of sweat appears on the skin. The age-old mid-brain mechanism of “fright and flight” is called into play.

I chose to look at the prime event of the adrenaline rush, the rising heartbeat, as a good correlation to the anxiety that insinuates in all of us for each flight. No matter the number of hours in the cockpit, nor the experience, the primitive brain is stymied from doing its deed when called upon in unnatural circumstances.



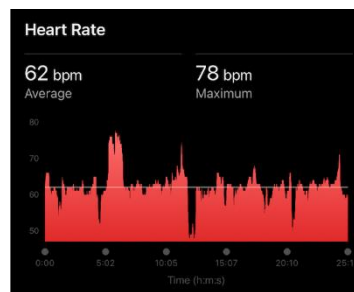
Graph #1 Take Off and Landing by Craig. Note the bookends.

As the graphs obtained directly from the watches suggest, prior to any flight, there is a rise in the heart rate above the underlying “resting” threshold. This is culled by both the anticipation of the flight and by the potential unknowns that might occur. A good pilot briefs himself about any-and-all emergency procedures. During takeoff mode, the biggest emergency would be loss of thrust (loss of engine power). It is important to repeat the mantra in our heads, “If the engine quits on the runway roll, immediate shutdown! If it quits on takeoff below 700 feet of altitude, Pitch down for Speed and land straight ahead. If the engine quits above 1000 feet, (specifically in a Bonanza 1,500 feet), then consider the ‘impossible turn’ if the winds, temperature, and pilot proficiency are favorable.” These repetitions are important. As the last retained vestige of information in the mind, the brain takes over the commands and instructs our bodies to follow suit. As one can see, a good pilot will develop a sense of controlled urgency within the veneer of calm on takeoff, through this preparation. This urgency then drives the adrenaline to keep us on our toes and provide that tingle of suspense, prior to takeoff. The more challenging the flight conditions, such as low ceilings, rain, crosswinds, high density, etc., the higher the anxiety level.

During the flight, things can hinge on several factors, since unbeknownst to us, nature plays her own quiet game. But we can gather data from the larger movements of the fronts and high and low pressures to decipher what might be hiding in the clouds, or in the air, as rain. What is in the heavy rain or worse, or simply out-of-nowhere, teeth-chattering clear air turbulence? Such events may be forecasted, but when they hit, they make our hearts skip a beat. The accelerator is pressed as the lurching heart finds its traction and gallops.

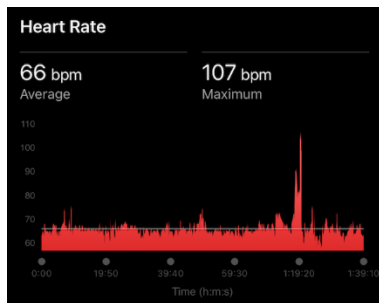


The Cowling opens in-flight



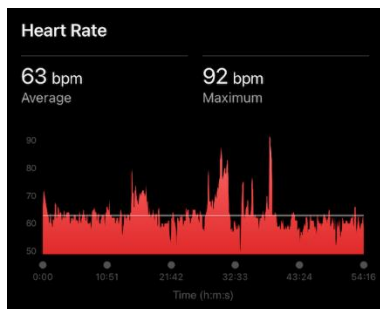
Graph #2 The sudden spike of the heart Rate correlates with the cowling event.

This graphic shows an interesting phenomenon that occurred not too long ago in the Bonanza when the cowl flap suddenly opened in midflight. The spike in the heart rate is sudden and uncontested but, as my inputs stabilized the aircraft in flight with a slight side slip and slower speed to reduce the kinetic energy, everything seemed to will its way back to normalcy.



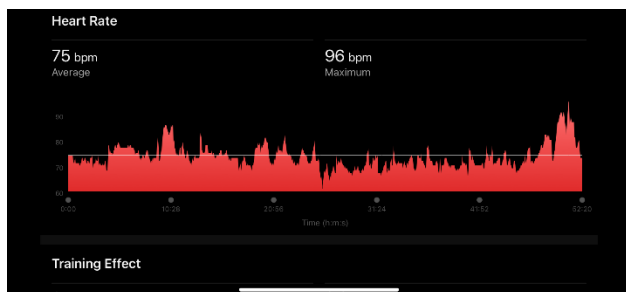
Graph #3 Traffic Alert nearby and Resolution.

In an M20TN, during a similar event with traffic nearby, as the Garmin MFD barked the alert, and I was visually unable to determine its location. This created a roll out of the red carpet of adrenaline for a short duration, that was pulled back as soon as the aircraft came into view. In the old days we were either more adept at acquiring other aircraft in flight or blissfully oblivious.



Graph #4 The RPM fluctuation, Alternator Inop and Traffic with Resolutions.

It is said, and I accept, that most non-pilots and pilots seem to agree that a pilot’s skills are known by the “Landings.” While it is true that every landing has its challenges, some have more than others. However, each one is a distinction-in-itself.



Graph #5 15G22 Crosswind Landing.

A calm landing differs from a headwind landing versus a crosswind landing. Throw in an occupied runway, or rain and snow and ice, and the whole calculation is turned on its head. The level of anxiety reaches a new level of bizarreness. While, as pilots, we are programmed to repeat to ourselves that not

all approaches must end in a landing, our egos can get in the way, and we become test pilots for that brief interlude. And there, nature can exact a price from us. Although both graphics show the rise in the heart rates of both Craig and I, the difference is the level of rise. It seems that proficiency matters as well as experience. Having encountered events, the mind has a framed construct to follow its previous successful path. Having none, the mind goes into a battle mode.



Graph #6 Craig’s flight after 3 months of inactivity.

So, you might ask, in the end, is this good or bad? To borrow a phrase, the answer lies in your definition of the words “good and bad!” It is always good to have a degree of alertness during a flight. But a constant state of alarm leads to fatigue of the senses. This fatigue has caused many a pilot to deviate from the norms of

flight and end up in bad scenarios. The fatigue can also be accentuated by lack of sleep, mild hypoxia, CO in the cockpit, chronic anxiety and stress, and a whole host of stuff life throws at us.



Chart #7 The tail end of my five-hour IFR flight with minimal icing, a crosswind landing, with multiple student pilots in the pattern.

Now add the phase of sudden anxiety onto a preexisting condition such as narrowed coronary arteries, or unknown “berry aneurysms” that give up their walls etc., and incapacitation can be quite

unexpected. Other physiological events such as deep-sea diving within 24 hours, followed by a flight or flying above FL180 in an unpressurized aircraft for long durations, can lead to dysbarism, called “Bends and Chokes.” It can be very disconcerting and incapacitating. Many conspirators thrive in those unknown waters, and it takes a calm mind and a steady, experienced hand to wade through them. And above all, a knowledge of self!

The nutshell universe of this argument remains. A little anxiety keeps you alert, but too much is harmful. Time in a cockpit and experience are good teachers. Fly often, learn, and expand your universe of experience!

Fly Safe



Cracking the Codes

by Luca F. Bencini-Tibo

Approved OMB No. 2125-0026
Exp. 7/31/2020

International Flight Plan

U.S. Department of Transportation
Federal Aviation Administration

PRIORITY =FF

ADDRESSEE(S) _____

FILING TIME _____ **ORIGINATOR** _____

SPECIFIC IDENTIFICATION OF ADDRESSEE(S) AND / OR ORIGINATOR _____

3 MESSAGE TYPE =(FPL) **7 AIRCRAFT IDENTIFICATION** _____ **8 FLIGHT RULES** _____ **TYPE OF FLIGHT** _____

9 NUMBER _____ **TYPE OF AIRCRAFT** _____ **WAKE TURBULENCE CAT.** _____ **10 EQUIPMENT** _____

13 DEPARTURE AERODROME _____ **TIME** _____

15 CRUISING SPEED _____ **LEVEL** _____ **ROUTE** _____

16 DESTINATION AERODROME _____ **TOTAL EET** _____ **ALTN AERODROME** _____ **2ND ALTN AERODROME** _____

18 OTHER INFORMATION _____

SUPPLEMENTARY INFORMATION (NOT TO BE TRANSMITTED IN FPL MESSAGES)

19 ENDURANCE E/ _____ **PERSONS ON BOARD** P/ _____ **EMERGENCY RADIO** R/ U V E

SURVIVAL EQUIPMENT POLAR DESERT MARITIME JUNGLE **JACKETS** LIGHT FLUORES UHF VHF

DINGHIES D/ _____ **NUMBER CAPACITY COVER** _____ **COLOR** _____

AIRCRAFT COLOR AND MARKINGS _____

REMARKS _____

PILOT-IN-COMMAND _____

FILED BY _____ **ACCEPTED BY** _____ **ADDITIONAL INFORMATION** _____

FAA Form 7233-4 (7/15)

Clearing flight plan confusion

Here is an example of flight plan codes for a typical light general aviation airplane:

Block 10 (Equipment): **SBGRY/EB2**

Block 18 (Other Information): **PBN/B2C2D2S1 SUR/260B CODE/AC6DD5 REG/N90LH**

How did we get there?

After several delays due to IT issues, as of August 2019 we no longer have a “domestic” flight plan (FAA Form 7233-1). All flight plans — domestic, international, IFR, and VFR — use the ICAO or International Flight Plan (Form FAA 7233-4). For the sake of simplicity, let’s refer to it as the *Flight Plan*.

Differences in terminology between the current and previous domestic flight plans exist but are mostly self-evident. For example, *aerodrome* for *airport*, *endurance* for *fuel on board*, and *cruising speed* for *true airspeed*. What has been a source of potential confusion are the correct codes for Block 10: *Equipment* and Block 18: *Other Information*. We will focus on the relevant flight plan codes, but to fully understand them, we need to discuss Performance Based Navigation (PBN).

By using GPS as a navigation source, we are flying within the world of PBN. It might be transparent for FAR Part 91 operations (excluding Subpart K), but PBN has been a mainstay for years for Part 121 (airline) operations, especially using Flight Management Systems (FMS).

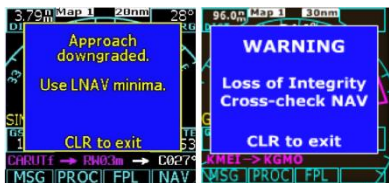
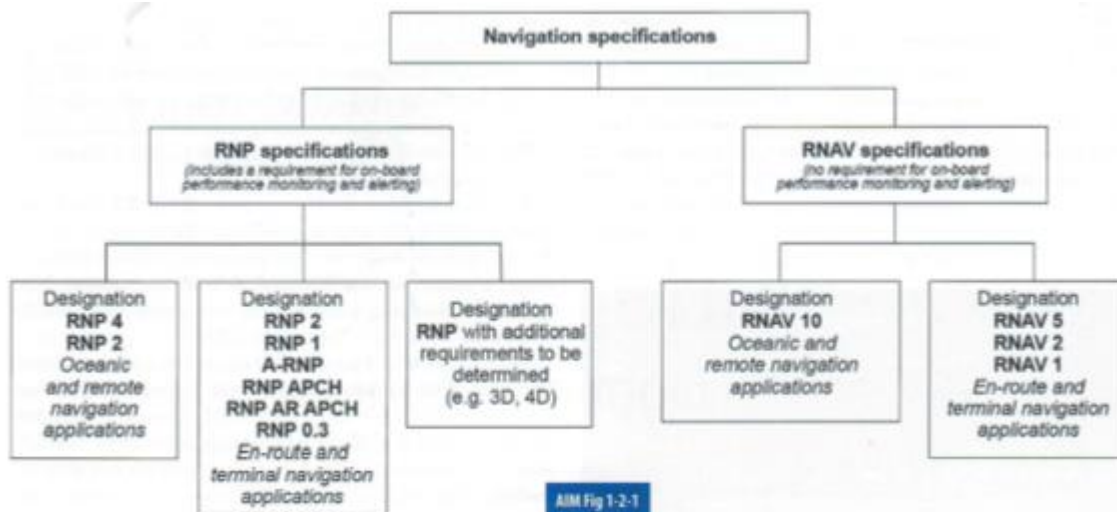
Let’s look at PBN from a different perspective: An espresso machine and a cappuccino. The espresso machine (equipment), along with milk, water, coffee, and a human, produces a product — a cappuccino. As consumers, we typically are more concerned with the product (or output); for a cappuccino, it would be taste, temperature, cost, etc. The product is more relevant than the equipment and production process.

Translating the above example to aviation, if we have a VHF AM radio using aviation frequencies (equipment), we can talk with ATC (capability). The focus then is not so much on equipment but rather on what it can do, i.e., its capabilities. This is true with FMS (equipment) with multiple inputs such as atmospheric pressure, temperature, and simultaneous use of multiple navigation inputs (VOR, GPS, DME, Inertial), along with databases and software, which collectively produce an output (position) and navigational guidance.

I also realize there is a logical relationship between “equipment” and “capability.” One implies the other. For example, if I have a VOR receiver (equipment), I can fly Victor airways and VOR approaches (capabilities). This analogy can be extended to all equipment. PBN’s focus is on “capabilities,” not so much on “equipment.”

I also need to address the acronym RNAV. It started out as **R**andom **NAV**igation; then it morphed into **a**Rea **NAV**igation. It includes navigation systems that allow navigation from point A to point B without flying to and from a ground navigation station, such as a VOR and NDB. Examples are celestial, inertial, rho-theta, defunct LORAN-C, VLF/Omega, and GPS. Furthermore, RNAV (along with RNP — Required Navigational Performance) are also PBN specifications. And if we add a number, for example, RNAV-2, it is a probabilistic measure of accuracy. 95 percent of the time, the displayed position is within 2 NM of the actual, unknown position.

PBN specifications or standards are divided into two specifications: **RNAV** and **RNP**. Source AIM Figure 1-2-1.



The difference between the two specifications is that RNAV specifications do not require an on-board performance monitoring system, and RNP specifications do. For non-WAAS GPS, the on-board performance monitoring system is RAIM (Receiver Autonomous Integrity Monitoring). It calculates if there will be sufficient satellites for an approach at the time of arrival. This is called FD (Fault Detection). If sufficient satellites are unavailable, there will be an error message stating to use another navigation system, usually VOR/ILS. This is also why non-WAAS GPS is considered a secondary navigation system requiring another navigation system.

For WAAS GPS, WAAS continuously monitors the health of GPS satellites, and it excludes any miscreant satellite(s) from being used for position calculations. This is called FDE or **F**ault **D**etection and **E**xclusion. This is also why WAAS-GPS can be used as a primary navigation system, not requiring that you have other navigation equipment installed.

With WAAS GPS, there is no need to do RAIM checks, but they are still routinely done. There is nothing wrong with using a “belt and suspenders” approach, but it is unnecessary.

Block 10 Equipment

This information has two components. Before the slash mark (“/”) are the codes for typical avionics installed in the light GA aircraft. After the slash mark, surveillance equipment is noted, namely transponder and ADS-B (Automatic Dependent Surveillance-Broadcast) capabilities.

Avionics, excluding transponders

S: includes VHF COMM, VHF NAV (VOR and ILS). If one or two are missing, then we must use the following:

V for VHF COMM, **O** for VOR and **L** for ILS

G: GPS (known internationally as GNSS — Global Navigation Satellite System)

B: It is added if the GPS can fly LPV approaches (Localizer Performance with Vertical Guidance, which are flown to decision altitudes. In other words, the GPS has WAAS capability, but it also assumes that the approaches are in the current database. (WAAS is a U.S. term. The general term is SBAS — Satellite Based Augmentation System.)

R: It is a pointer code for Block 18 referring to PBN Approvals. PBN Approvals are typically found in Pilot's Operating Handbook Avionics Supplements, which are regulatory.

Y: Most contemporary VHF COMM radios have the capability of 8.33 kHz spacing between channels rather than existing 25 kHz spacing, effectively quadrupling the number of available COMM frequencies between 118.000 MHz and 136.990 MHz. 8.33 MHz spacing is used in Europe, given traffic density. Since we would most likely save the codes in an aviation APP, go ahead and document it even though it will not apply domestically.



Garmin 650Xi with 8.33 kHz channel spacing capability. (Suggestion: Don't select this option in United States COMM radios since the VHF frequencies, at first glance, look odd and could be confusing).

Other Equipment. If there is a "working" ADF (not an airborne boat anchor), add an "F;" for a DME, add a "D." In the off chance that you file by handwriting a paper flight plan form that is handed to a human, the codes are listed alphabetically starting with "S." Typically, **SBGRY** would apply to most light general aviation installations in IFR aircraft.

What about that fancy retrofit glass panel, or perhaps a new digital retrofit autopilot? Well, there are no codes for those.

Surveillance Equipment (Transponders and ADS-B)

Typically, we have three types of transponders: the older Mode C with altitude reporting, Mode S (S for select), which was originally developed to support TCAS (traffic collision avoidance system), and enhanced Mode S called Mode S ES (extended squitter). Extended Squitter means that the transponder, compared to Mode S, transmits additional information, such as LAT/LON position requiring WAAS GPS input.

Differences in terminology between the current and previous domestic flight plans exist but are mostly self-evident. ... What has been a source of potential confusion are the correct codes for Block 10: Equipment and Block 18: Other Information.



Both Mode C and S respond to interrogations by ATC secondary radar, and Mode S also responds to interrogations from other aircraft. It is well known as a "squawk" and "squawking," (from the old name for a transponder, which was "parrot"). However, a Mode S ES transponder not only responds to interrogations through squawking but also automatically transmits every second without interrogation. Such a transmission is called a "squit," and the action is "squitting." In other words, an ADS-B OUT transponder transmits independently of interrogations.

In all cases, a WAAS GPS source is needed for precise LAT/LON position. It could come from a WAAS GPS navigator or a WAAS source that is dedicated only to ADS-B OUT. In the latter case, WAAS GPS cannot be used for navigation.

The advantage of “squitting” every second using a WAAS-determined LAT/LON position is not only more precision but also a much more frequent position update (every second) compared to updates every 5 to 12 seconds using approach and center radars.

The codes for the transponder are **C**, **S**, and **E** for Modes C, S, and S ES, respectively.

For Mode S ES, we need to add either **B1** or **B2**. The former refers to ADS-B OUT only, and **B2** refers to ADS-B OUT and IN. ATC does not really care that aircraft have IN. Also, a screen is needed for IN to show traffic and weather, but it is unclear if the screen needs to be panel mounted or a portable screen like a tablet. Either case, you have IN.

What about ADS-B for C and S? Instead of a Mode S extended squitter transponder, and only in the United States, we have UAT (universal access transceivers), which normally provide both IN and OUT ADS-B. UAT can only be used below flight level 180. With both IN and OUT, the codes are **CU2** and **SU2**. But “taillight” UATransmitters, (notice, not transceivers), only provide OUT. The codes are **CU1** and **SU1**. Additionally, if the transponder is panel mounted and especially if remote mounted, it is hard to tell the transponder type. We need to refer to the POH Avionics supplement. (Note that through ADS-B ground stations, UAT IN allows us to “see” weather (FIS-B) and to “see” non-ADS-B OUT-equipped aircraft). Like Mode S ES transponder, UAT also transmit every second

These are the options for transponder codes:

Non-ADS-B: **C**, **S**

With ADS-B capability: **CU1**, **CU2**, **SU1**, **SU2**, **EB1**, **EB2**

There could be the possibility of **EU1** and **EU2**, but only the transponder or UAT can transmit the OUT. One must be deactivated.

Block 18 Other Information

The “**R**” code in Block 10 indicates that the aircraft is equipped with PBN capability, and the most common capabilities are **B2**, **C2**, **D2**, and **S1**.

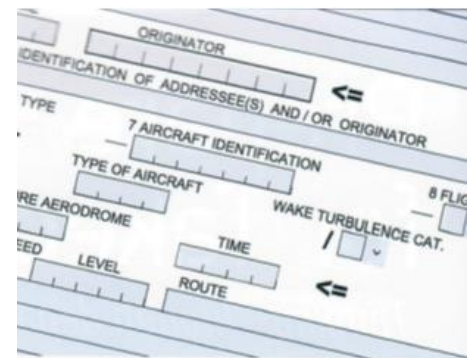
B2 is RNAV-5 for basic point-to-point navigation defined as direct from one waypoint to another waypoint using GPS. In other words, any route that does not depend on the use of airways, SIDs (standard instrument departures), and STARs (standard terminal arrival routes), but is rather a great circle (direct) route between waypoints, you would use RNAV-5.

C2 is RNAV-2 refers to GPS based airways: T and Q routes

D2 is RNAV-1 for SIDs (standard instrument departures) and STARs (standard terminal arrival routes) using GPS.

S1 is an RNP specification (not an RNAV) for all GPS approaches using non-WAAS and WAAS IFR GPS having either RAIM (FD) or FDE capabilities.

The PBN codes would be **PBN/B2C2D2S1**



For example, code **D2** indicates RNAV-1 capability using GPS, but RNAV-1 capability for SIDs and STARs can also be achieved using DME/DME/IRU, which would be code **D4**. Most RNAV SIDs and STARs are annotated: *RNAV-1 – DME/DME/IRU or GPS*: example: KMIA HURCN THREE DEPARTURE (RNAV).

(HURCN3.HURCN) 22139 AL-257
HURCN THREE DEPARTURE (RNAV)

RNAV-1 DME/DME/IRU or GPS.

A reasonable observation is that there is a “nesting” issue. In other words, an RNAV-1 (**D2**) capability would naturally have an RNAV-2 (**C2**) capability in terms of accuracy. It is like saying that a car able to go at 100 mph can also go at 60 mph. The difference is that using the **D2** code implies willingness to fly T and Q routes, not just the capability. Similar logic applies to **B2** and **C2**.

For surveillance equipment, specifically ADS-B, we need to add that it meets the RTCA (Radio Technical Commission for Aeronautics) specifications by adding **SUR/260B** for an E transponder (RTCA Document-260B) or **SUR/282B** for UAT (RTCA Document-282B).

For our Canadian colleagues, Canada is implementing ADS-B Out *DIVERSITY*, which relies on transmissions to ground stations and satellites. Currently, it is only required at and above FL180 but will expand to other airspace in ensuing years. The code is: **SUR/260B CANMANDATE**.

A complicated formula translates the registration (tail number). For example, N90LH, into a hexadecimal transponder code (base 16) is AC6DD5. It is documented as **CODE/AC6DD5**. The hexadecimal code is found in the FAA Aircraft Registry.

For AIRCRAFT IDENTIFICATION (Block 7), we typically use the “N” number as the call sign for ATC communications. However, a flight number (American XXX) or a specialty call sign might be used instead of a tail number. For example, for Civil Air Patrol, it would be CAPXXXX. CAPXXX would go in Block 7, and in Block 18, the “N” number is documented. For example, **REG/N123CP**. Even if specialty calls are not used, adding the tail number to Block 18 is a good practice.

Back to the beginning, an example of a specific and typical light general aviation airplane would have the following codes and hopefully, it all makes sense now

Block 10: **SBGRY/EB2**

Block 18: **PBN/B2C2D2S1 SUR/260B CODE/AC6DD5 REG/N90LH**

As a final note, I do get questions on how to answer ATC requests, such as, “Say type.” For example, I still hear “*Skyhawk slash Gulf*” for a Skyhawk with Mode C and GPS. It is a carryover from the previous domestic flight plan equipment codes. The correct response is *Skyhawk*. The /G is no longer relevant, nor is any other equipment code from the previous domestic flight plan.

References:

AIM Appendix 4: *International Flight Plan*
AIM Chapter 1: *Air Navigation Section 2 Performance Based Navigation*

Luca F. Bencini-Tibo is a flight instructor based in southeast Florida and has received the FAA Wright Brothers Master Pilot Award. He holds an ATP with S/MEL ratings, along with commercial glider and SES ratings. As a Mooney owner, he also provides transition and proficiency training for Mooney owners. He is a graduate of MIT and Harvard Business School.



1) You are planning a night VFR flight and the time enroute will be 2 hours with a fuel burn of 20 gallons. How much fuel do you need to have in your tanks prior to takeoff?

- a) 25 gallons
- b) 30 gallons
- c) 27.5 gallons

Answer: c). According to [FAR 91.151](#), you need 45 minutes of reserve fuel at night. 20 gallons + 45 min (7.5 gallons) = 27.5. The Mooney Flyer recommends a minimum fuel reserve of 1 hour.

2) You're flying over a city (congested area). You'll need to remain 1,000' above the highest obstacle within what radius of you?

- a) 2,000' radius
- b) 1 mile radius
- c) 500' radius

Answer: a). According to [FAR 91.119 \(b\)](#), you need to be 1,000' above the highest obstacle within a 2,000' radius.

3) Do you need to tell your passengers to use their seat belts before you begin to taxi?

- a) Yes
- b) No

Answer: a). According to [FAR 91.107 \(a\) \(2\)](#), you need to notify passengers to use their safety belts prior to taxi. The demonstration is optional.



4) Adults can hold children on their lap for takeoff as long as the child is:

- a) No older than 1 year old
- b) No older than 2 years old
- c) Gen Z. Those kids are very needy and subject to anxiety.

Answer: b). According to [91.107 \(a\) \(3\) \(i\)](#), children under 2 years old can be held for takeoff.

5) You're taking a friend on a trip, and they want to split your fuel costs. Can you ask them to split the parking and tie-down fees too?

- a) Yes
- b) No

Answer: a). [FAR 61.113 \(c\)](#) allows you to split airport expenditures equally (pro-rata), so it's ok to split the fees.

The Other Side of the Line

By: Don Peterson



A large majority of the failures in my airplanes were caused by a mechanic trying to save me money. Sometimes, I was the mechanic.

I bought my 64 Mooney when I was 28. I had little money and less sense, but an urge to fly. The first mechanic to work on the plane told me that my fuel injected 200 HP engine had over 1,200 hours on it, and that was the TBO for my early version. I realized later that he didn't check to confirm whether it was a small or large valve stem engine, but I was a good boy and found the money to buy an overhauled engine. In 1980, the engine exchange was \$6,500 from a widely regarded shop. Within fifteen hours it was leaking so much oil I had to reach out through the vent window to clear the plexiglass well enough to land. The overhauler gave up trying to fix it, and the Lycoming factory needed two tries to sort it out, costing me months with no plane, and an amount equal to what I paid for the engine in the first place.

From 1980 through 1996 I was dependent upon A&Ps and IAs to keep me safe and legal. In 1987 I married a lovely woman with her own plane, a 1955 C170B, so our budget for maintenance went exponential. Not long later, we added a Starduster Too, and a Stampe SV4. At least the money was pouring into aviation and not shoes. My first sight of her was her carrying a pair of Continental C145 cylinders in her oily arms. I would have agreed to anything, including the shoes.

I was in the automotive parts business for much of my life, and although never a maintenance professional, I was handy with tools. With the constant work on two aerobatic planes, plus the Mooney, by 1997 I accumulated enough time to earn my A&P, and later, an IA certificate. That's when things changed.

I was never a whiner nor cheapskate. Nevertheless, I would ask a technician if such and so was necessary, or might we put it off for another year? To their credit, the techs and inspectors were good at their job and would explain why a decision needed to go one way or another. I found that a blown tube, failed gyro, inoperative flap system, and dead generator would later be explained by, "I tried to save you some money and figured it would last another year." This would leave me stranded somewhere.

Once I began helping friends with signature-type work on their planes, I found myself firming up my own opinions on where to draw the line. While judgment in maintenance is a legitimate standard, there's still a right and wrong way to do things. Perhaps more to the point, there is a safe frame of mind, and the other kind.

In the 80s I attended a presentation by the FAA at Oshkosh, at which the Inspector stated bluntly that Experimental Aircraft were not a significant concern to them. The builders and flyers of these types did it for love and pride and would spare no expense. On the other hand, commercial operations facing profitability pressures would sometimes ask the maintenance personnel to cut corners. This is where the FAA's surveillance was most needed.



Early in the new century, I helped a friend by doing the Annual Inspection on his CAP10B. I got my first aerobatic lessons from the French Connection and was fond of the type. This plane claimed to be the first imported to the US, with the wing being rebuilt by Mudry Aviation in Florida, just after my friend purchased it. The CAP10 had a history of in-flight spar failures, with ADs describing the

required spar inspection. We followed the AD closely and six months later, the wing folded up. The NTSB determined that the failure was in an area and manner not covered by the AD, leading to even more restrictive standards going forward.

I've done most of my own maintenance since 1997, including Annual Inspections, once I earned that ticket. However, every few years I've tried to find a good shop to do the inspection, with my full support to find and repair everything I might have missed. Sadly, this puts me into the "for profit" world, with shops trying to maximize their income. It has not always gone well.

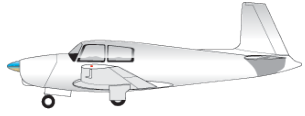
Profit is good. The last thing I want is for a good shop to go broke because they don't make enough money. What bothers me is using unqualified help, without adequate supervision, signing off items as being inspected that weren't, and ignoring checklists and instructions for continued airworthiness.

- Black, brass instrument screws do not belong in structural applications.
- Bearing grease should not be injected into the brake caliper bleeding screws.
- Intake pipes should not be swinging freely below the cylinder head.
- The nose gear uses very specific bolts,
- Threaded fasteners come in two varieties, sheet metal and machine, and they are not interchangeable.

If the inspection is signed off by a contract IA who billed only one hour, is there any likelihood that they delegated the inspection?

About thirty years ago I had an article published titled "Flying in America is too cheap." The publishers were delighted by the amount of angry mail it produced, most of which took the outraged position that flying was too expensive, and every person in the US should be able to afford and fly their own plane. Editors like mail of any sort, as it is a measure of how much attention they are getting from their readers. However, aviation cannot be mandated to be cheap, and efforts to do so seem to be dumbing down some among the maintenance industry.

The only side of the line in aviation is the one that keeps people alive. A conversation last week with an FAA Inspector received the reply, "We don't usually get involved when shops make mistakes. We only get involved when an airplane crashes and someone dies." Quite a change from the FAA presentation three decades ago.



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The image shows a red box with white text on the left. To its right is a magazine cover for 'The Mooney Flyer' featuring two Mooney aircraft flying over a sunset. A blue button with a hand cursor and the text 'Click here' is overlaid on the bottom left of the magazine cover.



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A cartoon mechanic in blue overalls and a cap, holding a large wrench. To his right is a blue button with a hand cursor and the text 'Click here'. Below that is the text 'Download Mooney's 100 Hour Inspection Guide'. To the right of the text is the Mooney logo, a stylized red and white wing.

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How critical is the Jack Screw in the tail section? Have you ever seen a failure? Should this be checked every annual inspection?



A little background on the jackscrew. Almost all current aircraft have a jackscrew in the tail that operates the horizontal stabilizer. For example, B-52, DC-10, almost all Boeing aircraft have one. The Mooney is one of only a few that moves the entire tail assembly. Another aircraft is the Lockheed Jetstar. I use the Mooney and the Jetstar as examples since I have personal experience with both aircraft. I

think "critical" is an understatement since the Mooney tail assembly is held on to the fuselage by just two hinge bolts at the top of the tail of the fuselage. It is rotated up or down by the jackscrew so I would consider it critical. I am not aware of any failure that has caused any major damage. The advantage of the Mooney system is, it eliminates the need for trim tabs and the required control system which saves weight. Operation can be either manual or electric depending on the model year. There are inspection criteria to be performed at Annual Inspection, basically checking for wear at the mount bearings and the actuator itself. Basically, the plane must be on jacks and then we put a piece of tape on the tail and lift the tail up and down to measure free play which has given limits depending on model. But the limits are usually about 3/8 to 1/4 inch. The excessive wear can be corrected usually by replacing the mount bearings, upper attach bolts, sometimes shims in the actuator, etc. You do what is necessary to bring the movement to limits.

It is a highly reliable system that is almost trouble free and requires minimal maintenance.



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GAMI officials said that more than 650 STCs have been sold so far, and we should see more and more airplanes using the unleaded fuel. Officials report that Vitol Aviation has produced 1.2 million gallons of G100UL, making it "commercially available."

The fact that the fuel has been produced in volume, tested, and made "commercially available" is significant because of a consent decree in California, which requires avgas fuel distributors and FBOs to transition to an unleaded fuel as soon as one is deemed "commercially available," GAMI officials said.

According to GAMI's George Braly, that consent decree was signed by all 100LL avgas fuel distributors and most of the FBOs in the state.

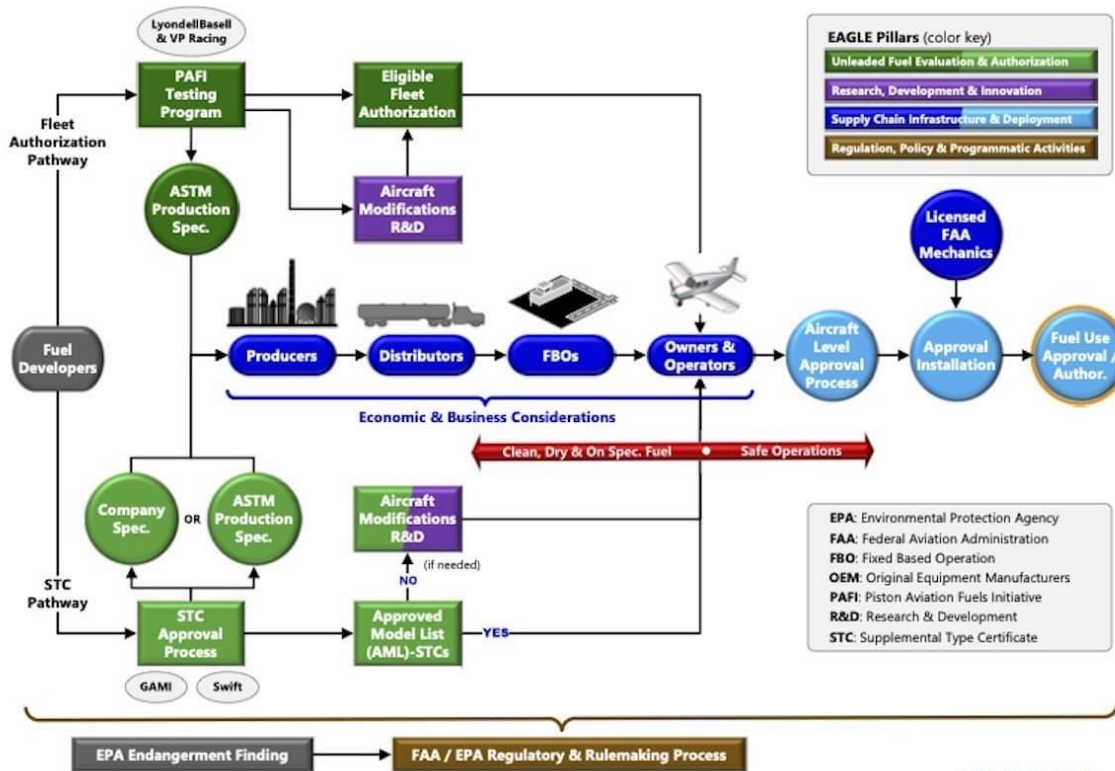
However, while GAMI officials say the fuel is commercially available, others in the general aviation industry dispute that, including the [National Air Transportation Association](#) (NATA), which says until the fuel goes through the ASTM approval process, FBOs and aircraft owners will be hesitant to use it.

GAMI officials say that years of testing and approval through several layers of the FAA hierarchy proves the fuel is safe to use.

[READ MORE](#)

Drop-in Unleaded Replacement for 100LL Expected in Late 2025

Transition to Unleaded Aviation Gasoline "Big Picture"



April 2024

flyEAGLE.org

The chart outlines the steps necessary to an unleaded future for GA. (Image courtesy EAGLE) A fleet wide approval for an unleaded fuel for general aviation is expected in the third quarter of 2025. That’s the key takeaway from an April 2024 update from representatives of Eliminate Aviation Gasoline Lead Emissions (EAGLE), an industry-government initiative launched in 2022. The one remaining fuel in the government’s testing program, known as the Piston Aviation Fuels Initiative (PAFI), is UL100E from LyondellBasell/VP Racing. It is the only fuel to get through the first three phases of testing and is now in what the FAA calls “full-scale” testing, which includes 10 different engines and eight different airframes. The FAA’s Lirio Liu, EAGLE executive director, reported that on April 10, 2024, UL100E successfully completed a 350-hour engine durability test. “Three more tests are scheduled on different engines,” she said, noting the FAA expects the testing to “culminate in a full fleet approval in 12 to 18 months.” FAA officials note that UL100E has completed about 5% of its detonation and performance testing, 25% of its durability and performance testing, and 20% of its materials compatibility testing.

READ MORE

For more information: FlyEAGLE.org

Bipartisan FAA Reauthorization Act Signed Into Law

President Joe Biden signed the long-awaited bipartisan FAA Reauthorization Act into law on Thursday May 16—funding the Federal Aviation Administration (FAA) for another five years.

The package includes language with a requirement for airlines to install 25-hour cockpit voice recorders on new and existing aircraft, up from two hours currently. National Transportation Safety Board Chair Jennifer Homendy praised the bill.






Notably, the FAA Reauthorization Act also includes a first-ever general aviation title drawing praise from groups such as AOPA and EAA. There are several provisions in the bill that support GA including expanding BasicMed, mandating a 24-month deadline for the FAA’s final rule on MOSAIC and sections that address the continued availability of avgas, among others. “We appreciate the leadership of lawmakers who see the importance of this section and worked in a bipartisan manner to include provisions that enhance safety and support general aviation,” said EAA President Jack Pelton.

Full text of the bill can be found [here](#).





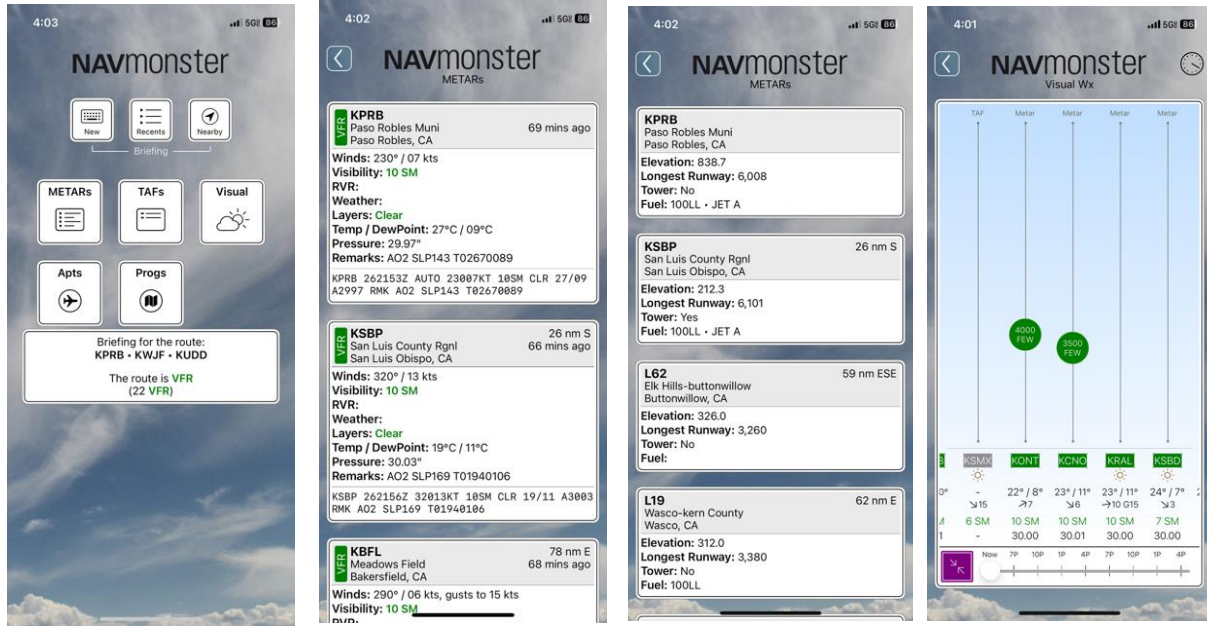
Events

| | |
|---|---|
|  | <p>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 June 8: Sebring (SEF) (Note, this is change) July 13: Williston, (X60)</p> |
|  | <p>Sign Up at https://www.mooneysafety.com/ppp-registration/ 2024 Event locations: Owensboro, KY, June 14 - 16 Burlington, VT, Sep 6-8 Dallas Ft Worth, TX, Oct 18-20</p> |
|  | <p>2024 AGM fly-in will be to Port Lincoln in South Australia. You will be able to enjoy fabulous Coffin Bay oysters, swim with the tuna, visit local wineries and much more.</p> |
|  | <p>Learn more at https://www.empoa.eu/index.php/en/</p> |
|  | <p>June 28-29: The Mooney Flyer RoundUp. CLICK HERE for details. CLICK HERE to Register</p> |



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It's FREE and can be found on the Apple App Store. In the "visual" above, there are not many clouds enroute, but when there are more clouds, the graphic visual and annotation of few/broken/overcast is a very convenient and quick picture.

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Things which do you no good in aviation:
 Altitude above you. Runway behind you. Fuel in the truck. Half a second ago. Approach plates in the car. The airspeed you don't have.



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

- Plessey actuator removed. 7743 hours. Back clutch spring has 1166 hours.
 - Spare Plessey back clutch spring. Purchased in 2012 with "several hundred hours".
 - Manual extension Spool and Cable for Plessey, installed 2021, 206 hours.
- Best offer. Parts will be sold separately.

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





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