The Mooney Flyer

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

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Editors

Contributors

Phil Corman | Jim Price

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

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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.

From the Editor Phil Corman



The Mooney Predator

My partner, Jim Price, is an awesome writer and editor. This month, in my opinion, he has totally outdone himself. His article on the Mooney Predator, M20T, is amazing. Jim did indepth research on the history of this



Mooney. He also talked extensively with Don Maxwell and Tom Bowen, both of whom had a lot to do with this airplane. Jim loves history, especially aviation history, and particularly Mooney history. And his love shows in this month's article on The Mooney Predator. I think you will find this article fascinating and completely enjoyable.

Mooney Getaways

Our articles on Mooney Getaways are very popular. Unfortunately, we have written about most, if not all of the places we have visited in our Mooneys.

So, we invite you to write about a place you have flown your Mooney where you have had a great time.

Do NOT worry about your writing ability, spelling, or grammar because we will edit it. We just need Information that the readers will enjoy, such as:

- ✓ Flying there.
- ✓ Airport and FBO Information.
- ✓ Things to do.
- ✓ Hotels.
- ✓ Restaurants.
- ✓ Shopping.
- ✓ Historic Places to visit.
- ✓ Parks to hike or visit.

Our readers really appreciate information that will help pilots and passengers. Please consider sending us your flying experiences. Readers would enjoy reading about places in the USA or the world. Don't be shy as you consider telling other Mooniacs about fun places you have flown.

I love my Mooney mostly because	
It looks so awesome on the ground and in the air	34%
It burns so little fuel	28%
It flys so beautifully	21%
It goes fast	16%
back Voters: 289	

Next month's poll: "Regarding Mooney Aircraft"

<u>CLICK HERE</u> to vote





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.

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

Be sure to include your home base and state.



CFIs











I understand that the following appeared on Mooneyspace recently:

Mooney International Corporation Update

Mr. Jonny Pollack, CEO of Mooney International Corporation, presented an update on the company's current operations and strategic objectives to the Joint Airport Board on April 26, 2023. Mr. Pollack reported the company is currently focusing on aviation parts as a "steppingstone" to a return to full sized aircraft manufacturing. "In the short term," Mr. Pollack explained, "we plan to become a self-sustaining aviation parts company. In the long term, we're manufacturing airplanes again, but with a more solid foundation that can weather economic uncertainties." Since Mooney International has a sizeable footprint on the airfield, and an economic impact on Kerrville-Kerr County development, meeting attendees asked if there was potential to lease portions of the facility to third parties. Mr. Pollack stated the property's value was in the company's manufacturing certificate.

The company recently passed the FAA Part 145 Service Center audit and has plans to secure contracts for manufacturing specialized defense avionics and related components. Mr. Ed Marin, Chief Operational Office, pointed out that potential growth of the company is tied to sustainable and long-term development within the aviation industry, including the potential for defense contracts.

I think that you know my views on the matter. I think that there is no real value in the Production Certificate as they have been unable to sell it. The only "value" in the company is the Type Certificate (TC) and it is not as much as they would like it to be because of the overhead involved in maintaining the TC. They are in the zero-sum game of trying to make it "sustainable" by jacking up parts prices. The risk in this strategy is that it threatens the long-term viability of the business by driving more of the fleet into retirement. Not a pretty picture.

If you know anything more than is in the press, let us know.

Regards, John H, Australia

Editor's Note: We agree and wish that Mooney had started a "Refurbishment Business." This was proposed by Bob Kromer years ago and we agreed with him.



The Mooney Predator

In the 1960s, the Air Force trained pilots in three phases. First in the <u>Beechcraft T-34</u>, then <u>Cessna's T-37</u> and finally in <u>Lockheed's T-33</u>. In 1964, the US Air Force (USAF) decided to replace the T-34 with the

"off-the-shelf" Cessna 172F and call it the T-41 Mescalero. The Air Force believed it could screen or "wash out" their pilot candidates in a less expensive propeller-driven airplane before the candidate arrived at the T-37 jet phase. With Enhanced Flight Screener (EFS) experience, fewer pilot candidates would wash out of jet pilot training.



The USAF ordered 237 T-41As from Cessna. In August 1965, the first USAF class (67-A) of students began training in the T-41 from the civilian airport in Big Spring, Texas. All the instructors were civilian CFIs.



When I entered USAF Pilot Training in 1970, the first six weeks consisted of T-41 training, where I received 17 hours of dual training and a solo flight. During that time, throughout the screening process, I was able to "dodge the bullet." However, several of my classmates were eliminated and offered Navigator training at Mather AFB

in Sacramento, California. Most of the guys accepted, because as a Navigator, they would continue to receive the extra \$100/month of flight pay.

Although the T-41 was a great aircraft for flight screening, it was not capable of spin training. So, in the early 1990's, the Air Force asked aircraft manufacturers to start thinking about a more advanced leadin trainer that was:

- FAA Certified Aerobatic (capable of spin training)
- Capable of overhead traffic patterns
- Able to accommodate low-to-moderate "g-loading."

February 6, 1991

Mooney rolled out N222FS, their Enhanced Flight Screener (EFS) Trainer, the M20T Predator.





To build the Predator, Mooney used a short body M20C / M20E empennage with a Porsche serial number, an M20K wing, a M22 Mustang tail, plus an M20M Bravo firewall and cowling. Basically, it was assembled like Johnny Cash's "One Piece at a Time" Cadillac. However, it is MUCH better looking!





Courtesy of Joe Hyde, San Angelo LIVE!

Instead of an entry door, it featured a sliding canopy and two control Sticks. Mooney did not insulate the aircraft, repair the canopy wind leaks, or install an exhaust muffler. So, the M20T was LOUD!



The Predator's Numbers:

- Maximum Takeoff Weight 2,900#
- Capable of +6 G's and -3 G's
- Empty Weight 2,000#
- Payload- 450#
- Engine Lycoming AEIO540 (300 hp with Christian Oil Kit)
- Propeller Hartzell Aerobatic
- Fuel 75 Gallons (37 usable in each wing with "flop tubes" (for inverted flight))
- Speed 180 kts Max Aerobatic Speed (Vma), 165 kts Design Cruising Speed (Vc)
- Climb 1,500 fpm (Vy) @ 90 KIAS
- Stall Speed 58 KCAS
- TO / Landing 1,600 ft at Sea Level, on a standard day

The Air Force was slow deciding who would get the contract for the new lead-in trainer, so in early 1991, Mooney decided to offer its Enhanced Flight Screener Trainer model to the public. However, there was little public interest.

Mooney's Bravo TLS continued production through 1995, along with their 201 MSE. In 1994, the 201 was replaced by the M20R Ovation. With two models, Mooney could offer the Bravo's high speed and the Ovation's high efficiency.

July 1990 through July 1991, the Air Force Materiel Command (AFMC) conducted an Operational Evaluation of all competing aircraft:

- Aerospatiale Trinidad (8 sorties)
- Swiss FFA Bravo (9 sorties)
- Siai Marchetti SF260 (9 sorties)
- Slingsby Firefly (9 sorties)
- LoPresti Piper Swift (10 sorties)
- Glasair IIS/III (15 sorties)
- Mooney M20T / TLS (20 sorties) with Mooney Test Pilots Brian Hancock & Mike Miles





Mooney's M20T Excelled at:

- Takeoff performance.
- Overhead patterns.
- Cross country / Transition to the training area.
- Ground Handling.



The M20T was "found wanting" in the following areas:

- It was a complex aircraft with a Retractable Gear, increasing the number of maintenance hours required / flight hour.
- \circ Roll rate = 90°/Second (The best rate achieved was ~360° 6 seconds).
- It took four 360° turns to recover from a fully developed spin. The Air Force desired a recovery in two turns or less.



Finally, the competition for the Enhanced Flight Screener was held in 1992. The winner was the <u>Slingsby T67 Firefly</u>, built by Slingsby Aviation in Kirkbymoorside, Yorkshire, England. The Air Force purchased 114 for their flight screening programs in Hondo, Texas and the Air Force Academy in Colorado Springs, Colorado.

Note: In 1973, Pilot Training Flight Screening and the T-41s were removed from the airports near the USAF Pilot Training

bases and moved to the **South Texas Regional Airport** in Hondo, Texas.

In 1994, Slingsby delivered the first Firefly. Soon thereafter, problems began to appear. There were numerous engine stoppages during flight and ground ops. Additionally, there were three fatal crashes at the Air Force Academy. Instead of "Pilot Error," the Firefly was blamed for the problems, and it was determined that making the Fireflies airworthy would be too expensive. In 1997, the Commander of the <u>Air Education and Training Command</u> "stood down" the entire T-3A fleet. In 2006, the Fireflies were scrapped, never again to slip the surly bonds of Earth.

The Air Force's Current Screening Program

Today, potential USAF Pilots, Combat Systems Officers, and Remotely Piloted Aircraft pilots that do not



have a private pilot's license must go through the screening program and receive time in the Diamond DA20-C1 Katana before going on to their respective training programs. Flight Screening is now based at a civilian flight school in Pueblo, Colorado. And yes, the DA20 is capable of spin training.

The Lonely Predator



Photo Courtesy of Tom Bowen

In 1991, Mooney President Jacques Esculier knew that they had lost the chance to sell the Predator to the Air Force. So, he ordered that N222FS be parted out and the rest of the airplane destroyed. However, the workers could not bear to do that. They ignored Esculier's mandate and in secret, removed the wings, engine, cowl, and other parts and hid them in the Engineering Horseshoe. There, the Predator remained a factory recluse, lonely but not forgotten.

1995 – New Ownership

Mooney's French Ownership decided to divest itself of Mooney aircraft and Mooney's new President/CEO, Bing Lantis, was tasked to sell company.

1996 - Tom Bowen and Test Pilot Mickey Miles

Because the Slingsby T67 was plagued with safety issues, it was thought that Mooney could have a second chance with the M20T. If the USAF were to buy the Predator, Mooney's plan was to also offer a civilian version. Therefore, the R&D Team asked Tom Bowen to reconstruct the Predator. Tom Bowen approached Mooney's CEO Bing Lantis with a simple proposal that included an all-volunteer team, no expenditures, and no interference with other development projects. Tom was given the green light. He and test pilot Mickey Miles led the reconstruction team of volunteers. On the weekend, wonderful restoration volunteers filled the hangar.



1997 - Ready to Fly

On Monday, June 30, 1997, an unpainted M20T, with a new number, N20XT, taxied from the R&D Horseshoe hangar and parked in front of Bing Lantis' office window. After Tom gave his surprised Boss a summary and a quick flight, Bing granted permission to make it an official marketing promotional project. They now needed to finish equipping the aircraft and somehow, develop a new paint scheme.

Tom's Paint Scheme Team

Tom approached his four daughters, ages 8, 9, 10, and 11, and asked them if they could develop a paint scheme for an airplane. When the girls heard that the airplane was called The Predator, their creative minds



began to spin. As they drew on the floor with their crayons, they came up with the perfect design for the Predator.



Photo Courtesy of Tom Bowen

2014 - 2019

1997 –2002 Airshows & Tom's Runner

Mooney Test Pilot Mikey Miles completed the Airworthiness certification, and the Predator was returned to service. The M20T's first airshow appearance was outside the MAPA booth at AirVenture 1997. In 1998, it made an appearance at SUN'nFUN. Thereafter, the Predator was Tom's personal "runner" until he left Mooney in 2002.



Photo Courtesy of Tom Bowen



Photo by Joe Hyde, San Angelo LIVE!

With no hope of the Predator becoming part of the Air Force's Screening Program, Mikey Miles flew the Predator to Lakeland where it was parked outside the Florida Air Museum in Lakeland, Florida. In 2019, the Museum told Mooney that the Predator no longer met their needs and asked them to take it away. The M20T was disassembled and transported back to a Mooney hangar in Kerrville.

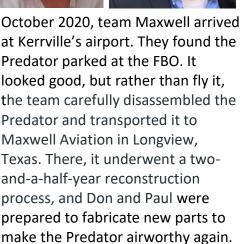
2020 - Enter Maxwell Aviation

In 2020, Don and Paul Maxwell of Maxwell Aviation told Mooney that they were willing to restore the plane and get it flying again in the experimental-exhibition category. In mid-2020, Mooney told the Maxwells to come and pick it up.



Photo courtesy of Don and Paul Maxwell

Don



Paul said working on the Predator

Paul

was his pride and joy. However, ofttimes, restoration of the Predator took a back seat to Maxwell Aviation's customers.

Don and Paul checked the aircraft for corrosion, overhauled the engine, and rebuilt the fuselage.



Paul replaced the old "steam gages" with a Garmin panel, which included two G3X Touch Screens, a Garmin autopilot, a combined GPS navigator and ADS-B transponder. The cockpit's instrument panel looks nothing close to the 1990s "six pack" with "steam gages."

Photo by Joe Hyde, San Angelo LIVE!

Paul and Don flew the Predator to San Angelo to take part in this year's April 27 – 30 Mooney Caravan Formation Clinic (Texas Wing). There, thirty Mooney pilots trained in close formation flying, formation landings and takeoffs. This training prepared the pilots for the Mooney mass formation arrival at Oshkosh AirVenture on July 22nd, 2023.





Photo by Joe Hyde, San Angelo LIVE!



Is it still LOUD?

Just like the original Predator, the restored Predator lacks a muffler. Also, canopy idiosyncrasies allow wind leaks, increasing the noise level. So yes, it is still LOUD with a decibel (dB) level of **120**. How loud is that? It is the equivalent of the noise generated by a chainsaw, an ambulance siren, a thunderclap, or a gun shot. However, Don and Paul have Bose ANR (Active Noise Reduction) headsets, so to them, it is not a problem.

How does it Fly?

A 300 hp Lycoming normally aspirated engine with no muffler means that at full power, Don and Paul had to be mindful of leaving the wingman in the dust. The "new Predator" has a True Airspeed of 170 knots, and it can exceed 1,500 FPM in the climb. One of Predator's best assets is great visibility, thanks to the large bubble canopy. The canopy is still leaking and noisy, but the Maxwells will fix that in due time.

The Predator is intensely stable because the flight controls are actuated by Mooney's signature push rods. There is a lefthand throttle quadrant for both the left and right seat pilot positions.



Photo by Joe Hyde, San Angelo LIVE!



Like a Phoenix

The Predator continues to rise from the ashes. Thanks to the dedicated and loving commitment of many Mooniacs, it is flying again. The Predator is a physical reminder of several pages of Mooney History.



Captain Mikey Miles, Mooney Test Pilot



Tom Bowen. Currently,
Tom is the Chief Engineer
at Bye Aerospace

Sources:

https://sanangelolive.com/news/business/2023-05-01/predator-flies-san-angelo
Don Maxwell
Tom Bowen
Wikipedia

To Broker or Not to Broker

When you finally decide to sell your Mooney, you have a significant choice to make. Do you want to sell your Mooney yourself or hire a "broker"? This article will give you more information to help you make an informed decision.





This article was derived from an interview with an amazing broker and Mooniac, **Richard Simile**.



The first question you need to ask yourself is, do you have the time and knowledge to sell your airplane? If you own your own business or have a demanding occupation, you may not have sufficient time to manage all the calls. And like most things in life, you will get a lot of "gear and tire kickers" that are not going to buy your Mooney, yet they may consume a lot of your time, and make you think that they are sincere buyers.

Regardless of your decision, here are some things you really should do to prepare your Mooney before you place it on the market:

- ✓ Get it detailed. A clean airplane, inside and out, will increase the ramp appeal of your Mooney. Buying a Mooney is an emotional thing and often a preliminary decision to buy or not to buy is made on the first impression on the ramp.
- ✓ Make sure your Mooney is Airworthy
- ✓ Ensure:
 - All your equipment is operational.
 - o You have complied with all Airworthiness Directives (Ads) and Service Bulletins (SBs).
 - o You have up to date "digitized" logbooks.

If You Decide to Hire a Broker

The broker will first determine if you are serious about selling. Four main reasons for selling include:

- ✓ Health issues
- ✓ Age issues
- √ Financial concerns
- ✓ Upgrading to a new aircraft

Once both the seller and broker are sure that a sale will proceed, the next phase is a discussion of the Aircraft Market, especially as it pertains to Mooneys. A Mooney-experienced broker is critical in this phase. The market has been a seller's market for several years, but the market may have peaked or is about to peak. Many factors come into play, including availability of the model and interest rates on aircraft loans. As rates go up, there is a downward pressure on value. Valuation of your Mooney can be a challenge. A broker has information on actual selling prices for various Mooney models as opposed to the "Asking Price" which you might see on Trade-A-Plane, ASI, BarnStormers, etc.

Valuation

- ✓ You can start this process with valuation calculators such as VREF. This is a starting point, but by no means the final step in the valuation of your Mooney. VREF lags the market by several weeks, so a broker can help with that gap. The condition of your exterior and your interior is a factor. Any Damage History can have a significant impact on your valuation. Rules of thumb include:
 - ✓ Has more than 250 hours elapsed since the damage? After this amount of time, the impact on your valuation may be negligible.
 - ✓ The amount of damage is a factor. This can reduce your valuation by 15% or more if significant damage has occurred.

Asking Price

Should I ask more for my Mooney than I am willing to accept? The buyer will want to negotiate and feel like they are getting a good deal. This is where the knowledge of a broker can be invaluable. Saying your Mooney is worth the price is one thing, but a buyer may trust the more extensive knowledge OF THE BROKER and with more confidence, convey that to the buyer.

Broker Agreement

Now you will need a broker agreement to proceed. These vary by broker but include most of the following:

- ✓ A term length for the broker agreement
- ✓ How much the broker will be paid upon sale of your Mooney. This generally will include a percentage of the sale price, but with a minimum commission.
- ✓ Often you can choose to keep your Mooney in your own hangar. For qualified buyers, the broker will arrange demo flights with qualified pilots that are named on your insurance.
- ✓ There will often be a protected period. Should the Broker Agreement expire, this protects the broker.

Once signed, the Broker will list your Mooney on several websites including their own, if applicable. After that you will get regular "activity" reports from the broker listing all the interactions that have taken place during that period.

Purchase Agreement

The broker will develop the Purchase Agreement for you. These agreements are too long to include here, but a representative Purchase Agreement can be found by <u>CLICKING HERE</u>. They include:

- ✓ Details on your Mooney including Model, Serial Number, TTAF, TSMOH, etc.
- ✓ Selling Price and Payment Terms
- ✓ Financing conditions
- ✓ Escrow
- ✓ Deposit amount and terms for full or partial reimbursement
- ✓ Pre-Purchase
- ✓ Aircraft Delivery
- ✓ Warranties, if any
- ✓ Taxes

Summary

A good broker can save you time and get more money for your Mooney. They should handhold the buyer during the buying process, especially if they are new to aircraft purchasing. With a good broker, both buyer and seller tend to be happier. For us, a good broker should have extensive Mooney buying & selling experience and an excellent knowledge of Mooneys. This would be obvious to the buyer, giving the him or her more confidence, thereby increasing the chance that they will purchase your Mooney.



Dem Lazy Feet

By Jerry Proctor

Feet. Yes, we are talking about feet. You know those things you put in your shoes. Some feet are big, some small, some floppy, some gnarly and some are kinda cute when painted. As usual I digress. So, whatsup with da feet?



Well, feet have been with us since we crawled out of the swamp. We no longer needed flippers, but we needed something that would get us to the closest 7-11. They had to have them back then, otherwise, how else could people survive?

So, feet have carried us all over the world. As Homo Sapiens migrated out of Africa and then across Asia and Europe, how did we get there? Ya, on our feet! Now let's take this a little closer to home. How did early humans get to the Americas? Well DNA studies say people from Siberia and northern China came across the Aleutian chain. How did they do that? Well, it wasn't by horses. No self-respecting horse is going to leave some green pasture and go to where they know the fields are covered in ice nine months of the year! So, humans had to walk. Who should we thank? Yes, Da FEET!



So, after one winter in Alaska, those that survived, got the heck out and came down to populate Tucson. Historians have said Tucson is one of the longest continually inhabited places in North America. Duh. Where would you want to spend the winter? Go ahead and say it. TUCSON!

Well, I went a long way to make the point

that our ancestors made it here by not having what...? Not having lazy feet. They may have had sore feet, wet feet, cold feet and freeze your toes off frostbite, but they didn't have lazy feet.

Now let's zoom forward from 24-28 thousand years to the present day. More modern Mooneys have a rudder trim button and indicator. The first time I saw one in a Mooney was at Jimmy Garrison's place in Texas when I was trying out a Mooney Bravo. I was about to take off and he told me to put the rudder trim in the take-off position. I reluctantly agreed, but I really wondered about it and then, took off.



Now I am going to pause this literary masterpiece and say why I am antilazy feet. Some of you may recall that I had four military tours flying the OV-1 Mohawk. A fine airplane built by Grumman Ironworks. They used to call it Iron Spud. Go look that word up. Now it had very powerful engines, short wings, three tails and huge propellers. This is the only way the dang thing could get off the ground. HOWEVER, if one of those engines puked

right at takeoff, that is when you do not want lazy feet. In fact, you don't want lazy anything! Immediately, you would punch off the drop tanks, and STOMP in the corrective rudder. You are standing on the rudder peddle and your cute bun cheeks are nowhere near the seat you were formally sitting on. If you are lucky, you could lock your knee in this position while you hoped you were climbing out. It could be done, but there were times it wasn't done fast nor hard enough. I guess that is why it got the name "Widow Maker." After that engine ate itself, if you weren't fast enough on the rudder, that plane would flip over and now you had two choices:

- 1) You could live another 7 or 8 seconds and watch as it hit the dirt OR, my personal option --
- 2) Punch out upside down and end it immediately. This option saved burial costs and cleanup. Thus, this is why I learned to never have lazy feet!



During takeoff in a Mooney, one can put in proper right foot rudder pressure on rotation and easily keep that rudder in when climbing out. We can also use our unlazy feet to keep the plane trimmed in the descent, in a turn, or if you wanted to do a whifferdill. So, when instructing, if the airplane has rudder trim, I tell the pilot to leave the rudder trim in the center position, (not in the Takeoff position). I then tell the pilot the whole lazy feet story, starting at the swamp. Trust me, by the time I finish, they never want to hear that story again and I have another convert to the No Lazy Feet Club.

So, as you take your mild single engine speedster into the air, don't have lazy feet. Remember, we must honor all our ancestors that left their frozen toes in Alaska. They would be so upset to learn that after all they endured to get to Tucson, we have lazy feet.

Just think, if THEY had Lazy Feet thousands of years ago, they would never have left China and we all would be eating with chopsticks.

Fly Safe and say it with me, "No lazy feet!"

Adding Headrests to a Vintage Mooney

by Richard Brown

I don't know what year they started putting headrests in Mooneys, but it was well after my 1965 was built. There isn't much risk of getting rearended, so the threat of whiplash from the lack of a headrest is minimal. However, the comfort of my wife when she is dozing off before we get to cruise altitude, would be greatly enhanced by the presence of a headrest.

I had read that all the seats were built with the tubes for headrests – you just needed to buy a set with the posts 6" on center. With that sage internet advice (sarcasm), I bought a set of Toyota 4-Runner headrests that looked like a close color match.

"This will be easy," I naively thought. "I'll pull the panel off the back of the seat to find the tubes, then cut a couple of little holes in the top of the seat cover and slide the headrests in place." When I pulled the back off the seat, there were no tubes for headrests. If indeed all the seats were built with them, that started sometime after 1965.

For the next 2 ½ years, the Toyota headrests sat on a shelf in the hangar gathering dust. On a recent flight, as my wife was leaning on a pillow against the side of the plane, dozing off and on, she said, "It would really be nice to have headrests before we fly to Oshkosh."

With that suggestion, I did some more internet research on how people had added headrests to their Mooneys. The ones I saw involved welding pieces to the seat, but I didn't want my project to involve welding. However, it did give me some ideas, and after I again removed the seat back to examine the structure, I came up with a fairly simple solution.

Supplies needed:

- Two headrests, posts 6" on center I used a micrometer and measured the outside diameter of the tubes at 0.40" which was the reasoning for the aluminum tubes with a 0.43" inside diameter.
- Aluminum Square Tube 6063: ¾" x ¾" outside and 36" overall length
- Seamless 3003 Aluminum ½" Outside Dia, 0.43" Inside Dia, 3ft overall length (x2)
- 3/8" Neoprene Grommets (x4)
- #8 x 5/8" sheet metal screws (x8)



Here is a picture of the finished set up to make the rest of the steps easier to visualize.

1) Remove the seat cover from the seat back. (Prepare yourself for the sight of some old cushions... this led to the replacement of said cushions, which I'll write about next month).

2) The top of my seats are 12" wide, so I found the center, marked 3" to each side of center, and then drilled them out to ½". I did step it up starting with a 3/8" bit and progressing to the ½" bit. It is very thin aluminum and stepping up helped.



3) The lower panel is also 12" wide if you are measuring from the horizontal panel, not from the outside edge of the seat. Again, I marked the center and 3" to each side of the center. I also used a punch to dimple it as I couldn't get a bit vertical, and it wanted to walk up the panel. I drilled it out to ½", again stepping it up slowly with increasingly larger bits.



4) I cut a section of the square tubing just shorter than the inside edge of the seat and drilled out two ½" holes, 6" apart. If you make it just a little shorter than the width of the seat, you have some room to adjust side to side to line it up with the holes in the seat. If you do



not have a drill press for this step, I strongly encourage you to find one. Drilling ½" holes in ¾" square tubing will be difficult without a press. I used a round file to make the holes slightly oversized, so the tubes could slide into the holes easily.





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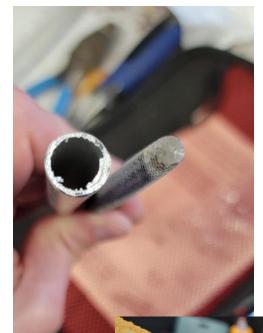
5) Cut four sections of the round tubing long enough so they will go from top of the seat and extend down into the middle panel. I used the round file to clean up the burrs on the inside edges of the tubing. The headrest needs to slide in and out, so they require a clean inside edge.





- 6) Place the grommets in the holes at the top of the seat. These will help add friction as you slide the headrest in and out. Unless you are perfect in your measurements, there will be some friction from the sides of the headrest posts in the tubes, as they are only 0.03" bigger than the headrest posts.
- 7) Slide the square tube up against the bottom of grommets and line up the holes. A clamp will hold it in place. Then slide the round tubes from the bottom, up through the holes in the mid-panel and into the holes in the square tubing, snugging them up against the grommet. Again, a clamp to hold it in place is helpful. Drill pilot holes through





the seat frame and close side of the square tube on each end. Secure it to the frame with the sheet metal screws. Then drill pilot holes through the seat frame and the close side of each metal tube. Secure those with a sheet metal screw.





8)After making sure the headrests fit, remove the headrests and position the top of the seat cover over the seat and mark the center of each post hole. I then used a razor knife to cut small holes, just big enough for the headrest posts. My plane has fake leather seat covers, so I don't have the concern of fabric unraveling. I also have sheepskin seat covers which hide the holes. I'm now waiting on the sheepskin covers for the headrests.







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

Passenger Flight Safety Information Card

Thanks to John Hillard from Australia and Russel Kelly (created by)

Passenger Flight Safety Information

EMERGENCY INFORMATION IS ON THE REVERSE SIDE



Mooney M20x aircraft N123AB -"Three Alpha Bravo""

Please read the Following Before Flight

Before Flight

Please use the toilet before boarding the aircraft. It is recommended that you drink some water before the flight as well.

Seatbelts

Passengers are required to wear seatbelts at all times during the flight. Adjust your seat belt so that it fits firmly and has no twists. Please ask the pilot if you have any uncertainty or concern about the use of the seatbelts in the aircraft.

Comfort

Please let the pilot know immediately if you feel in any way unwell or uncomfortable. Do not be embarrassed or timid—if you tell us early, then we may be able to do something to improve the situation. Please take a moment to familiarise yourself with the fresh air vents above your seat and the sickness bags in the seat pockets.

Exiting the Aircraft Please take a moment to familiarise yourself with the use of the doors and exits on the aircraft. Do not hesitate to ask the pilot if you have any concerns. **Emergency Exit details are on the reverse side of this card.**

Turbulence

The aircraft may be subject to turbulence—a bumpy roughness—that may be uncomfortable or unpleasant at times. Your pilot will tell you how much turbulence (if any) is expected during the flight. If you have any concerns about turbulence, be sure to ask the pilot.

Communications Your headset will enable you to communicate with the pilot and other passengers. Feel free to chat once we are in cruise, but pease **DO NOT** talk during the critical phases of takeoff and landing or when the pilot is listening to or talking to Air Traffic Control. The pilot will raise his index finger if he'd like you to stop talking.

Passengers seated in the front must keep their feet clear of the rudder pedals and not touch the controls.

Passenger Flight Safety Information

EMERGENCY INFORMATION

Your pilot has been trained to deal with emergency situations. If the pilot says that we have an emergency, please:

- STAY CALM and QUIET. Only talk if you have information that will help solve the problem.
- Familiarise yourself with the use of the aircraft exits;
- · If an emergency landing is necessary then:
 - Cushion your head, face and upper body with a jacket or pillow if possible;
 - Brace by either gripping the shoulder belt (front seat) or take up the position shown (rear seats);
 - Release the cabin door immediately before landing; and
 - Exit the aircraft quickly after it comes to a stop.



Emergency Exits & Equipment



BAGGAGE DOOR EXIT (right side of the aircraft) can be opened from inside:



- Pull cable to extract the lock pin
- Lift red handle up and push



- FIRE EXTINGUISHER is in the footwell of the left rear seat.
- HAMMER/SEAT BELT CUTTER is attached to the rail between the front seats.





Emergency Beacon

This Mooney aircraft is equipped with an EMERGENCY BEACON that alerts search and rescue authorities in the event of an accident.

CLICK HERE to download the PDF or Microsoft Publisher version and customize for your own usage.







Thunderbird Aircraft Sales

Specializing in pre-owned Mooney Sales and Brokerage

Hello Mooney Flyer Gang,

My name is Richard Simile, I am the President of *Thunderbird Aircraft Sales*. We Specialize in the Sale and Brokerage of late Model Mooney Aircraft. If you are considering the purchase of a newer Mooney, or thinking about selling your current Mooney, we hope you will consider using *Thunderbird Aircraft Sales*.

Our objective is to always provide a very pleasant transactional experience for both the Seller, and the Buyer. We have two offices. One in Auburn, AL and one in Chandler AZ. Please give us a call or email. We look forward to the possibility of serving you. Thank you.

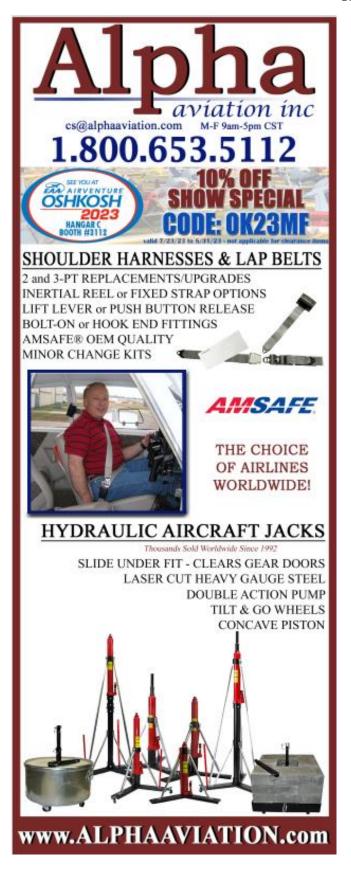
602-884-2111

<u>richard@thunderbirdaircraft.com</u> <u>www.thunderbirdaircraft.com</u> Mooney Chromoly Steel Roll Bar Cage Protection



When I went out to buy my first airplane, I went to every factory I could to see how their aircraft were made and discovered some very interesting things. When I went to the Mooney factory and saw how the airplane was made, particularly the Chromoly Steel Roll Bar Cage, THAT WAS IT for ME!!!! That Mooney Roll Bar Cage has saved many lives!! You all know the feeling of having that wonderful, extremely structural Steel Cage wrapped around you. There is nothing else quite like that feeling. The Mooney is a survivable machine should the unthinkable happen and that leads to a very high confidence level in the cockpit. Here is a very interesting note: The Mooney Airframe is actually "BORN" when the first two tubes of the Chromoly Steel Roll Bar Cage are welded together. After that is done, the welder stops what he is doing and ties the serial number tag to that newly welded piece and that is the very moment that a Mooney airplane is "BORN".

DM



Mooney Maintenance







Search Mooney's new website for Service

Bulletins (SBs) and Click here



applicable to your

Mooney

CLICK HERE for Airworthiness Directives for all Mooneys.

Ask the Top Gun

Tom Rouch

Founder of Top Gun Aviation, Stockton, California



Send your questions for Tom to TheMooneyFlyer@gmail.com



In your experience, what seems to fail most often on 1) Short Bodies, 2) Medium Bodies, and 3) Long Bodies?

I have an Ovation, but I am curious about all three types of Mooneys.

Thanks Tom



That's an interesting question and I have never thought about it from that perspective. I do have a common denominator though: The pilots who forget to put the gear down. It doesn't seem to matter whether it's an electric or manual gear, a gear up landing is probably the most common accident I have dealt with in my 70 years in aviation. When I started working on Mooneys, there were only short

bodies. The J model was the best of the 4-cylinder, non-turbo that Mooney developed. With the turbocharged K model, with each production year, Mooney was always improving – except when the Porsche engine was added. The early J models were basic, solid, fast airplanes that were almost indestructible except for the landing gear. It was very simple, if you remembered to put the gear down. To answer the basic question, I feel that short or long, either model is perfect. Great airplane.



Top Gun Aviation



Specializing in Mooney and Cirrus

(209) 983-8082

For Service and Maintenance, ask for Mark or Tom

FAX: (209) 983-8084

6100 S. Lindbergh St., Stockton, CA 95206

or visit our website at www.topgunaviation.net



Avionics Repair and Installation Services now available on site thru J&R Electronics





New Study - Pilots Hide Health Problems to Keep Flying



According to a 2019 study, two-thirds of military and paid civilian pilots answered "yes" to at least one of four survey questions addressing their reluctance to seek formal medical advice about health problems.

Knowing they could be grounded, which "can have negative occupational, social, and financial repercussions," pilots may see "disincentives to be truthful about their health care" if there is a chance their

employers or the FAA could find out, said Dr. William R. Hoffman, a U.S. Air Force employee at Brooke Army Medical Center in Fort Sam Houston, Texas.

In the survey of pilots, Hoffman found that more than 75% of pilots "worried about seeking medical care due to concern for their career or hobby."

This new survey expands on Hoffman's previous research by asking about specific aspects of that reluctance to seek medical care.

Pilots were asked to agree or disagree with several statements such as:

- Sought informal medical advice for fear of certificate loss.
- Flew despite experiencing a new symptom (physical or psychological) that warranted evaluation.
- Did not disclose prescription medication use.
- Misrepresented or withheld information on a written healthcare questionnaire for fear of certificate loss.

The web-based survey was completed by 2,383 non-professional civilian pilots, 1,097 paid civilian pilots, and 261 military pilots.

For more information, see https://generalaviationnews.com/2023/05/01/new-study-shows-pilots-hide-health-problems-to-keep-flying/?utm_source=TPOA&utm_medium=email&utm_campaign=20230502

Tempest Filter Cutter: Versatile, Easy to Use

At \$125, the Tempest AA470 oil filter cutter isn't cheap, but impresses with good construction and the flexibility to work with a variety of filters.



For more information, see https://www.avweb.com/ownership/maintenance/tempest-filter-cutter-versatile-easy-to-use/?MailingID=1333

FAA Easing Aeromedical Rules for Mental Health Issues



Federal air surgeon Dr. Susan Northrup. (Photo: FAA)

The FAA is revising its certification procedures and rules to make it easier for pilots grounded by mental health issues to regain their licenses and encourage those needing help to get it, federal air surgeon Dr. Susan Northrup said at the Business Aviation Safety Summit in New Orleans. Currently, 30 to 40 percent of applications reviewed by the medical division "have a mental health component," Northrup said, yet only between 0.1 and 0.2 percent are denied licenses or

recertification for medical reasons. The FAA is eager to "dispel the myths" about the impact of mental health conditions on certification, "so we can destroy the barriers to treatment," she said.

In 2010, the FAA approved four SSRI (selective serotonin reuptake inhibitors) antidepressant medications for pilot use, and pilots who report taking them "have been doing remarkably well," she said. In December, the FAA ended the requirement for annual neurological follow-up tests, and the agency is now considering adding seven additional SSRIs to the approved list.

Northrup said that for grounded pilots with applications on file, the agency is decreasing wait times, but she admitted, "They are still unacceptable at this moment, particularly for [pilots filing] initial SSRI" documents. The recent hiring of an additional psychiatrist to review applications should help reduce the backlog, she added.

Limited Aircraft Registry Services Now Online



The FAA Registry is now offering limited online aircraft registration services at https://cares.faa.gov/home

Individual aircraft owners can complete self-guided aircraft registration applications, upload legal and supplemental documents, receive auto-generated notifications, request aircraft registration N- numbers, use modernized online payment options, receive instant notification of payment, and digitally sign Aircraft Registration Applications. Online services will be continuously

improved and expanded to include corporations, LLCs, partnerships, and non-citizen trusts.

FAA Proposes Rule to Remove Instructor Certificate Expiration Date



The FAA has proposed a rule that would remove the 24-month expiration date on flight instructor certificates and instead establish 24-month recent experience requirements.

According to a notice of proposed rulemaking (NPRM) published on Tuesday, May 23, 2023, the methods of demonstrating recent experience would be the same as the current renewal methods established in 14 CFR § 61.197(a), namely passing a practical test;

endorsing at least five students for a practical test with at least 80 percent passing on the first attempt; serving as a company check pilot, chief flight instructor, company check airman or flight instructor in a Part 121 or Part 135 operation; completing an approved flight instructor refresher course; or passing an official U.S. Armed Forces military instructor pilot or pilot examiner proficiency check. The proposed rule would also let instructors establish recent experience by serving as a flight instructor in an FAA-sponsored pilot proficiency program. A similar rule to allow the issuance of flight instructor certificates without expiration dates was proposed in 2007. However, it was later withdrawn. CLICK HERE TO READ MORE

I'm so lucky!
The FAA
Controller
just gave me
her number!





June 22 - 25 Longview, TX KGGG





Hilton Garden Inn North

MooneyMAX Annual Mooney Conference

3 days of continuous Mooney education and technical support MAXimum performance, MAXimum safety, and MAXimum speed!

Registration

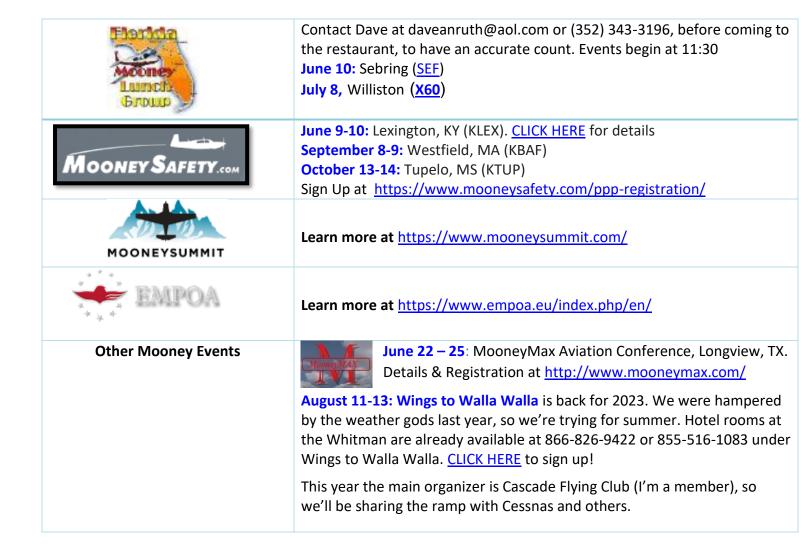
In-person Conference, Live Streaming, Recorded



Speakers' Page & Schedule







The Mooney Safety Foundation Pilot Proficiency Program Goes to Lexington, KY, 11 June 2023

After a highly successful Mooney Safety Foundation event at Henderson, Nevada, the highly acclaimed Mooney training program and instructors will move eastward to Lexington, Kentucky. Come to the Blue Grass region and enjoy what should be great weather, beautiful sights and exciting activities.

Lexington, KY has a long history, and it has a special name. In 1776, the folks in this beautiful region learned of the Colonist's victory at Lexington and Concord, so they named their area after one of those highly significant events. Lexington grew steadily and is now the second largest city in the state. Lexington is known as the Horse Capital of the World!



N1412M

A great place to visit is the Kentucky Horse Park, which gets great reviews. If horses are not your thing how about sipping bourbon? Lexington is also known for Bourbon, with fifteen distilleries within just a few miles of city center. Remember, no sipping bourbon within 50 feet of an airplane. Did I get that right, or not? So come on over, up, or down to this beautiful City and experience tremendous comradery, super entertainment

and great Mooney flying and instruction.



Our lodging will be at Embassy Suites, Lexington, 859-271-4000. Give them the Reservation code of CESMAP and the staff will instantly know you are there for the Mooney Safety Foundation. The block rate is \$134.00 per night. Call and make your reservation early because the special room rates go fast. Please do all you can to make this event.

We will fly out of Bluegrass Airport, KLEX, and the FBO is Signature Flight, 859-225-7724.



Through significant belt tightening, the Mooney Safety Foundation still offers the PPP for \$925. This rate hasn't gone up in many years. It is a bargain, and the reviews confirm this. You will be trained by very experienced Mooney instructors who have your proficiency and safety as their one and only goal. Has it been a while since you turned your Mooney into a simulated glider, all the way to the surface? This is the event to do just that.

Lunch is included on Friday. There is an evening banquet on Saturday night where we gather and enjoy comradery and swap airplane stories. The banquet is not included, but it is always well attended. Ladies/spouses are encouraged to come to the event and enjoy the sights and sounds of this special area. For those who have not been to a PPP, Thursday is the arrival date. We start early on Friday with interesting and well laid out classroom instruction. There is also the possibility of some evening flights. Much of Saturday is spent flying. Each instructor gets only two students, and you will receive approximately four hours of great Mooney training. Most can expect to accomplish a Flight Review and an Instrument Proficiency Check. Additionally, the PPP is approved for FAA Wings credits. Come one, come all to the next Mooney SF PPP. Get with Ms. Lela Hughes and make your reservation soonest. Her number is (210) 289 6939, or lelahughes49@gmail.com

Register Now!

Safety Is No Accident.

Jerry Proctor



Lightspeed Delta Zulu ANR Headset

Delta Zulu is built for your mission. Their newest headset could save the lives of both pilots and passengers. It includes Lightspeed's best ANR to

date, with the superior comfort and durability you expect, while also introducing groundbreaking new technologies.



LIFE SAVING - LIFE CHANGING

Kanari™ smart alert technology built right into the headset delivers audible warnings to you by measuring cabin carbon monoxide levels, to help keep you and your passengers alert and safe. A built-in audio equalization system called HearingEQity® ensures crystal clear flight communication with your individual hearing profile created through an automated 12-frequency hearing test.

PERSONALIZATION

The Lightspeed App also allows you to check the CO sensor data, create your own hearing profile, record radio conversations, playback transmissions, and archive flight recordings for

post-flight briefing and training. Delta Zulu is also the first headset to adopt the UAC plug, allowing you to connect to other devices directly from the headset – for charging, data communications, and auxiliary audio.

HearingEQity™ for custom sound – Based on results from a custom 12-frequency hearing test in the new Lightspeed app, HearingEQity automatically adjusts Delta Zulu to optimize every ATC call and conversation specifically for your individual hearing profile. Individualized profiles can be saved, and different headset users can switch profiles.

Changeable battery packs— Easy-to-replace battery pack gives you the option of using rechargeable lithium-ion batteries or regular AA batteries.

The Lightspeed App – Allows you to check sensor data visually during flight, supplying you with instantaneous readouts and historical data. Review safety metrics from prior flights, record conversations, playback transmissions, draw diagrams, and archive flight recordings onto your phone

or mobile device for post-flight briefing and training.





UAC plug – Delta Zulu is the first headset to adopt the UAC plug, allowing you to connect to other devices directly from the headset for charging, audio, and data transmissions. It can also be charged while flying via USB. Delta Zulu has options for 4 cable configurations, from UAC to USB-A (included), USB-C, 3.5 mm and Lightning plugs (optional).

CLICK HERE to go to Lightspeed's website for the Delta Zula



I have flown in just about everything, with all kinds of pilots in all parts of the world – British, French, Pakistani, Iranian, Japanese, Chinese – and there wasn't a dime's worth of difference between any of them except for one unchanging, certain fact: the best, most skillful pilot has the most experience. Chuck Yeager



Parts for Sale

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 – <u>leebern@msn.com</u> (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 – <u>leebern@msn.com</u> (562-865-2547)

Access Covers P/N 3000-901 (2-available) - 1-without nuts

attached.

Make offer. Contact: Bernard Lee – <u>leebern@msn.com</u> (562-

865-2547)





Item for Sale

Call Tom 303-332-9822

New Hartzell Propeller Hub HC-C2Y (K, R)-1 Serial CH41782B

This hub will comply with AD2006-18-15 and superseded by AD2009-22-03 This AD affects many IO-360 aircraft.

Current Hartzell price is \$4,275.

Price \$3,500 REDUCED

FOR SALE

1999 Mooney Eagle M20S Location: PWK (NE T's)

Contact: David Carroll @ 847-204-4894 / dcarroll@udevices.com

\$210,000





Total Time: 1755.3 Engine Time: 1177.8 SFN Prop Time: 719.5

Detailed Description:

1999 Mooney M20S Eagle, 1755TT, Continental Platinum IO-550 G7, 720 SFRM, Pristine Aircraft, Always Hangered, All Logbooks & AD Current, Garmin Avionics, Last Annual October 2022

Avionics/Equipment:

PMA 7000 Audio Panel
Garmin GTN650W
Garmin 430W
Garmin GI106B Nav Indicator
Garmin GTX345 XPNDR, ADS -B In/Out
Sandel SN3500 HSI
BF Goodrich WX-1000 Stormscope with Traffic Advisory System
S-Tec System 30 A/P
Insight Engine Monitor
Shadin Fuel Flow Gauge
Precise Flight Speed Brakes
P-2 Gear Alert System
E-04 ACK 406 ELT

Engines/Mods/Prop:

Engine Upgraded - Continental Platinum IO550-G7
Polished Spinner

Interior / Exterior:

Interior 9 / Exterior 9 Dual USB Power Ports

Page 43

Tug Available

Ask about purchasing the aircraft in its current LLC.



1965 Mooney M20C, N5533Q s/n 2955, TTAF 6212, Engine 1680 SMOH, Prop 1680 TSN, 10/1/22 Annua All cylinders ≥ mid 70's. Fine Wire Plugs. Great IFR panel: Garmin GTN650 Nav/Com 1, GTX327/GDL-88 UAT ADS-B In/Out, FS210 links to Foreflight. Garmin G5, King AI & slaved HSI, King KX155 Nav/Com 2 with Glideslope and DVOR, KN64 DME. EI MVP-50 engine analyzer (11⁺ primary instruments), one SureFly eMag, one Slick (<125 hrs. both). Manual Johnson Bar gear, Manual/Hydraulic flaps, PC & Brittain 1-axis AP and more! Original paint but she'll get you there @ 141 kt on 10 gph going GPS direct. Useful load 981 lbs, 669 lbs with full (52 gal) fuel. 30⁺ STCs, email for more info. Partners bought 2 other Mooneys, we don't need 3 sadly .





For Sale, shares(s) of my 1984 Mooney M20K 262 N57785

11/2022

Ditch the Airlines!

Looking for one, two or three partners to share this slick, modified 231.

Based at Sandia Airpark (1N1) in Edgewood, New Mexico now, I could consider a move to other nearby fields for the right reasons.

~\$170k invested, a partnership or LLC would allow an easy path to the best maintenance and upgrades - enabling fast, private transport all around North America.

s/n 25-0845, TTAF ~4384, Continental TSIO 360-MB4B ~85 since IRAN rebuild, Heated Prop ~85 since new, King KFC150 Flight Director/HSI/AP, Avidyne IFD540, KX-165 w/GS, Avidyne AXP340 ADS-B, Built-in O₂, +++

Larry Shapnek 505-366-4586 Larry@LarryShapnek.com

