

The Mooney Flyer

The Official Online Magazine for the Mooney Community

www.TheMooneyFlyer.com

January 2015



Science

Freedom

Beauty

Adventure

Mooneys Offer It All

Contents

Features

[Relying on Inflight Weather](#)

Phil Corman writes about the benefits, but also the limitations, of inflight weather. Using these services incorrectly can spell disaster.

[IFR Refresher: Part 2](#)

CFII Jim Price completes his most excellent article refreshing key points for all Mooney pilots flying IMC.

[I Used to Make Good Landings](#)

Read this insightful article on landing Mooneys by former Master Mooney Instructor Bruce Jaeger. It's not hard, but done correctly, it is a very sweet experience.

[Clouds & Fog Season](#)

CFI Geoff Lee writes on dealing with fog & clouds and filing IFR within it

[Mooney Tales: Vancouver, British Columbia](#)

Linda Corman takes her story to Vancouver, British Columbia, where you can spend a week or a weekend, and not scratch the surface.

[Falling 100LL Prices](#)

With oil prices plummeting, what will happen to the price of 100LL?

[Op Ed on "Real Pilots"](#)

Phil muses on why some pilots think adopting new technologies makes pilots lame

[Sticker Shock](#)

You think ADS-B is expensive, check on this ADF

In Every Issue

[From the Editor](#)

[Appraise Your Mooney's Value](#)

[Mooney Mail](#) – Feedback from Flyer readers

[Ask the Top Gun](#) – Tom Rouch answers your questions

[Upcoming Fly-Ins](#)

[Have You Heard the News?](#) – Relevant GA news & links for the month

[Mooney Instructors Around the Country](#) – Mooney Instructors around the USA

[Product Review](#) – Flight Stream 110/210

[Click Here](#) to Subscribe

[Click Here](#) For Back Issues

If you would like to donate to keep **The Mooney Flyer** healthy, please send your donation via your PayPal account to sales@TheMooneyFlyer.com



From the Editor

Phil Corman

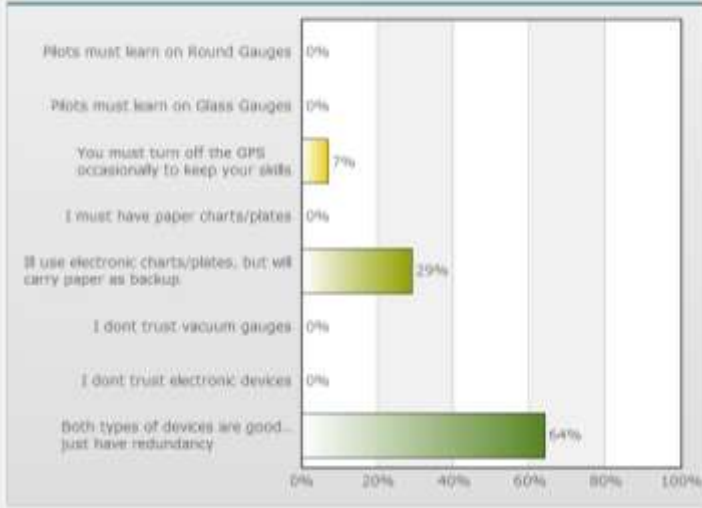


Happy New Year to all of our Readers!

Round Gauges vs Glass Gauges

Poll created by [Phil Corman](#) on 11/03/2014

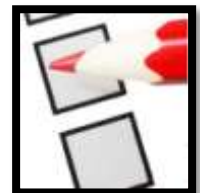
Poll Results



Last month's poll asked, **"What Is Your Favorite Mooney Mod?"**

In our poll of Round vs Glass Gauges, our conclusion is that pilots opted for "Redundancy" first. By that we mean, use Glass, but have Round gauges as backup as well as use Electronic Charts/Plates, but have paper as backup. Redundancy is a valuable tool for all pilots.

Next month's poll: "Which Social Media tool do you prefer most?" Is it Facebook, Mail Lists, or



Forums? Please be sure to place comments as well, so we can understand your choices.

[CLICK HERE](#) to vote.

Social Media

I find Aviation forums like [MooneySpace](#) vs Mailing Lists like MAPA, and Facebook (ugh!) – useful, because pilots can share valuable and/or relevant information with each other. They are great for PIREPS on instruments, maintenance, mods, and different shops.

The media falls into essentially two categories. The first is a forum such as MooneySpace, where people post a topic and anyone can see it, read it, and make a reply to it. All replies are then seen by others interested in that topic. The alternative, like the MAPA Mail List, sends out each post and each reply to everyone via their email system. The advantage of this method is that you get every post and reply for every topic. The disadvantage of this method is that you get every post and every reply for every topic. This can be worse than spam. It's also curious that there are 4 Mail Lists for Mooney pilots; Mooney, Mooney-Tech, Mooney-LongBody and MAPA. The first 3 lists are free, but you must pay your annual fees to MAPA to read their list. Essentially, the same people post the same topics in both Mooney and MAPA lists.

The other phenomenon we have observed is that regardless of forum or mailing list, a given topic does two things after the first several responses. First, the conversation wanders into an area, sometimes only remotely resembling the original topic. Second, if the topic is somewhat controversial, it degenerates into personal attacks and other “flaming” content.

Generally we have found these media to be very social and often very valuable, but it's often like mining for diamonds. You have to wade through tons of dirt to find a single diamond.



Appraise Your Mooney's Value

Don't forget about our cool new [Appraise your Mooney's Value](#) using Jimmy Garrison's valuation. Jimmy is from All American Aircraft,

the country's largest Mooney reseller. We have implemented the models for M20C, M20E, M20G, M20F & M20J. Click on your model to simply complete the valuation. You no longer need paper and pencil. Just another benefit to our subscribers.

[M20C](#) [M20E](#) [M20G](#) [M20F](#) [M20J](#)



First New Mooney, built in Kerrville, assembled in China's Henan Central Province. It's a totally different paint scheme for an Acclaim.

Welcome Mooneys to China!

If the pilot survives the accident, you'll never find out what really happened

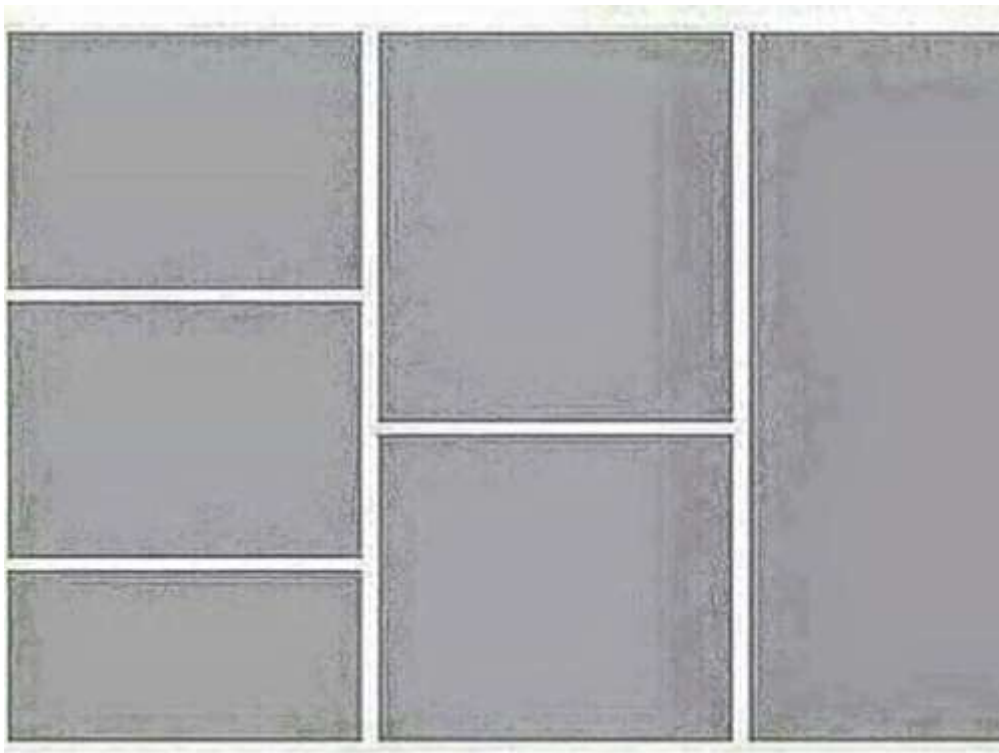
NASA ASRS Reporting System

Reader **Lloyd Babcock** suggested that we remind our subscribers of this amazing program, Aviation Safety Reporting System. This program enables a pilot to file a report within 10 days of an actual or potential FAR violation. In most cases, it eliminates prosecution from the FAA for that violation.

In addition to getting a virtual "Get Out of Jail" card, the intent of this system is to improve safety by accumulating safety issues in a non-threatening environment.

[CLICK HERE](#) for more details on this system.

Thanks to Lloyd for this heads up!



Pictures of Me Letting You Fly my Mooney



IFR refresher Part 1 is great! I've printed it out for reference. Thanks for highlighting the regulatory differences between WAAS and non-WAAS GPS IFR flight.

Gus H

Interestingly, the Mooney pictured in the ad on page 15 (MacAir, air taxi, 1968) didn't last long. Reference:

<http://aviation-safety.net/wikibase/wiki.php?id=10461>

Troy W

I absolutely love the publication and learn a bunch from each issue. I have a question – In the back of my mind I seem to

recall reading an article in your publication that discussed the proper methods of leaning using an engine analyzer (LOP and ROP). I am almost 100% sure I read it in one of your publications. But when I did a search on the publication archives I was not able to find it. Many of the articles I read discuss the benefits versus the concerns, but very few articles take you through the process step by step (or should I say cylinder by cylinder).

Ken J

Editor's Response: We have written many articles on running your Mooney efficiently. This article deals with Engine Longevity and talks on LOP v ROP and Lower RPM settings:

<http://www.themooneyflyer.com/issues/MooneyFlyerMarch2014.pdf>

As to your question: With an Engine Monitor

➤ For ROP:

- Set your Engine Monitor to ROP mode and lean your engine until the first cylinder reaches peak EGT
- Let your engine stabilize for 15-20 seconds
- Then enrichen until you are "out of the Red Box" (Click on this link to understand the Red Box: <http://www.sportaviationonline.org/sportaviation/201212#pg28>)

➤ For LOP:

- Set your Engine Monitor to LOP Mode and lean your engine until the last cylinder reaches peak EGT
- Let your engine stabilize for 15-20 seconds
- Then lean the mixture up to but not "into the Red Box"

At somewhere between 60-65% power, you can run your engine as lean as you like as there is NO RED BOX concern. So you can lean until the engine runs rough and then just enrichen it until it is smooth.

Quick question, have you written any articles recently regarding accidents resulting from go arounds or touch and goes, if so please let me know which month and year the article appeared.

Lloyd B

Editor's Response: We have written a few.. but here is a pointer to one:

<http://www.themooneyflyer.com/issues/2014OctTMF.pdf>. Hope this helps.

Gentlemen, this may be the best issue yet! Great work. Thanks

Tom O

You are professionals trained to deal with three things that can kill you: gravity, combustion, and inertia. Keep them under control, and you'll die in bed.

IFR

Refresher

Part 2



Google your brain and see if you can remember some of the rules as they apply to GPS and IFR!

RNAV / GPS Direct Flight Planning

- Avoid all sensitive areas such as TFRs, Restricted, and Prohibited areas.
- Your route should include one “real fix” – a fix that ATC will recognize – in each ARTCC area.
- ATC requires radar coverage and monitoring for a direct flight.

Unpublished RNAV Routes are direct routes based on area navigation / GPS capability between waypoints defined by:

- Latitude/longitude, *or*
- Degree-distance fixes, *or*
- Offsets from established airways at a specified distance and direction.

All unpublished RNAV routes require ATC radar monitoring.

GPS Approaches

You may fly an approach with your panel mounted, certified GPS, but only if the approach indicates “RNAV (GPS)” or is an “**overlay**” on an existing approach, such as a “**VOR or GPS**” approach. It must have **GPS** in the title.



When selecting an overlay approach, the 430/530 approach menu displays “GPS” in the title, for example, **VOR 03^{GPs}**.

NDB, VOR and TACAN approaches can be found in your database, but unless the approach has “GPS” in the title, you cannot use the approach. These non-GPS approaches are included in the database for map reference only.

GPS Approach Rules

- If you’re flying an overlay approach, like a “VOR or GPS-A”, or “NDB or GPS Rwy 24”, back up the approach with your VOR or NDB, if installed.
- In most cases, a GPS can substitute for ADF or DME. **There is an exception:**
 - **ADF Approaches** – If the approach is not a GPS **overlay**, the aircraft must be equipped with an ADF.
- When cleared for a GPS approach, you must navigate to all the fixes.



When Must You Execute a missed approach?

- If a RAIM warning appears.
- If you have a Garmin 530/430, and within 2 nm of the final approach fix, it doesn’t switch from **TERM** to **APR** or **0.3ⁿm**
- If you have a Garmin 530W/430W, and within 2 nm of the final approach fix, it doesn’t switch from **TERM** to either **LNAV**, **LPV**, **L/VNAV**, or **LNAV+V**



GPS NOTAMs can be located online at:

<https://pilotweb.nas.faa.gov/PilotWeb/>

From the “**NOTAM Functions**” menu, select “**View All GPS NOTAMs**”

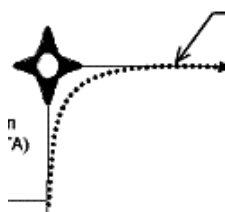
GPS NOTAM Example:

GPS **05/016** (KNMH A0037/11) GPS NAV PRN 30 OTS

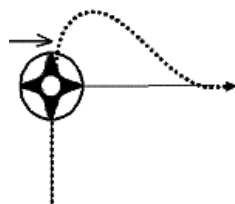
GPS Waypoints in SIDs, STARs and Approaches

Fly-By Waypoint

Fly-Over Waypoint



8



If the fix is circled, it’s a FLY-OVER fix and you must fly over the fix before turning to the new course.

[Back to Table of Contents](#)

LNAV/VNAV – Lateral NAVigation and VERTICAL NAVigation

- LNAV/VNAV approaches were developed to accommodate an RNAV IAP with vertical guidance, usually provided by approach certified Baro-VNAV (Not found in light GA aircraft).
- Requires a WAAS GPS.
- LNAV/VNAV has a glide path.
- The glide path guarantees vertical guidance over obstacles, but the DA may actually be higher than the LNAV MDA.
- Use “LNAV/VNAV DA” approach minimums.

LPV DA	6104-1½ 291 (300-1½)		
LNAV/VNAV DA	6152-1½ 339 (300-1½)		
LNAV MDA	6260-1 447 (400-1)	6260-1½	

L/VNAV



Although LNAV/VNAV and LPV approach minimums approximate ILS approach minimums, and Garmin refers to them as “precision approaches” with a Decision Altitude, the FAA considers them to be non-precision approaches. Technically, they are classified as an Approach with Vertical Guidance (APV).

LNAV+V – Lateral Navigation + VERTICAL Navigation

- Requires a WAAS GPS.
- LNAV+V annunciation infers that RAIM is OK.
- Non-precision approach with an **advisory** glide slope.
- Unlike the LNAV/VNAV glide path, the LNAV+V advisory glide path doesn’t guarantee obstacle clearance. Instead, it provides guidance for a stabilized approach, and meets the MDA at the approach’s VDP.
- Use “LNAV MDA” approach minimums.

LNAV/VNAV DA	6152-1½ 339 (300-1½)		
LNAV MDA	6260-1 447 (400-1)	6260-1½ 447 (400-1½)	6260-1½ 447 (400-1½)
CIRCLING	6440-1 555 (400-1)	6440-1½	6560-2½

LNAV+V

LNAV – Lateral NAVigation

LNAV/VNAV DA	6152-1½ 339 (300-1½)		
LNAV MDA	6260-1 447 (400-1)	6260-1½ 447 (400-1½)	6260-1½ 447 (400-1½)
CIRCLING	6440-1 555 (400-1)	6440-1½	6560-2½

LNAV

- WAAS or non-WAAS GPS.
- Use “LNAV MDA” approach minimums.
- Garmin 430W/530W difference: The LNAV annunciation appears when flying an LNAV GPS approach, ILS, or VOR.



NOTE: If planning to fly an approach to LPV minimums, you should always be prepared for all the higher MDAs and DAs associated with the approach.

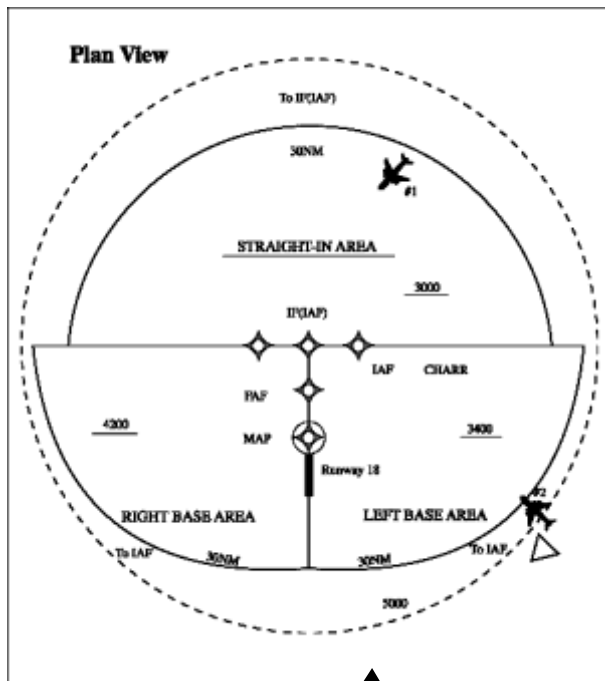
NOTE: LPV, L/VNAV, LNAV+V, or LNAV may not announce until the aircraft is two miles outside the FAF.

Baro – VNAV (Non-WAAS)

References to “Baro-VNAV” are commonly found in approach notes. Baro-VNAV applies to aircraft with an FMS, where “Baro-VNAV” technology allows a non-WAAS GPS equipped aircraft to fly a VNAV approach.

CH 3000 W11A	115°	FDZL Apt Elev 633	BUTLER COUNTY RGNL
<p>▼ If local altimeter setting not received, use Cincinnati Muni Airport-Lunken Field altimeter setting and increase all DAs 59 feet and all MDAs 60 feet. Baro-VNAV NA when using Cincinnati Muni Airport-Lunken Field altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C (4°F) or above 47°C (116°F). ▲ Visibility reduction by helicopters NA. DME/DME RNP-0.3 NA.</p>			

Terminal Arrival Areas (TAAs)



TAAs are not found on all RNAV procedures. However, when published, the TAA replaces the MSA for that approach procedure.

The "T" design uses one to three IAFs. Some locations omit a right-base or left-base area due to airspace or terrain considerations. There's also an intermediate fix (IF) that also serves as an IAF. It has a final approach fix (FAF) and a missed approach point (MAP), which is usually located at the runway threshold.

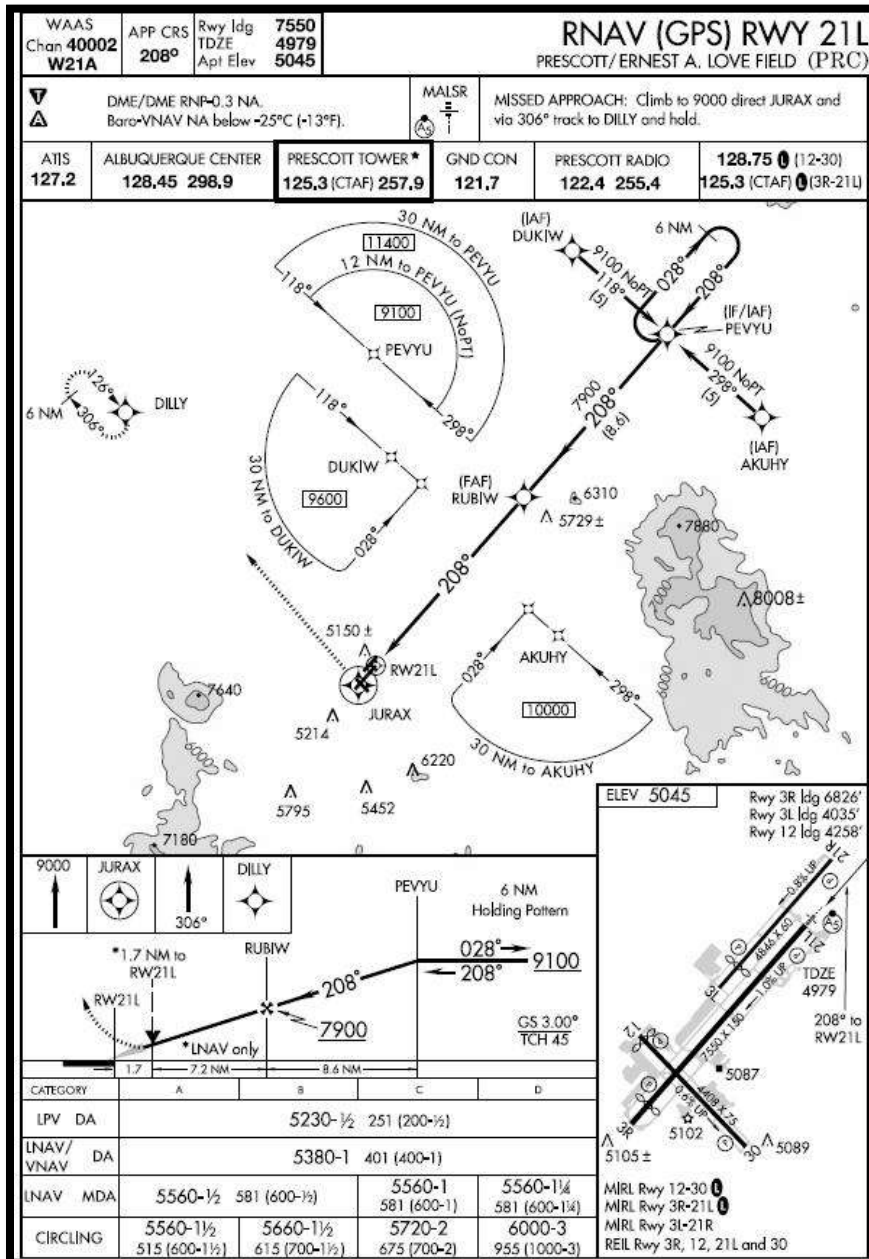
Pilots entering the TAA, and cleared by air traffic control, are expected to proceed directly to the appropriate IAF associated with that area of the TAA, and at the altitude depicted, when within 30 NM of that fix. (Ref. Dept. of Transportation, FAA, ATC Sect 8, 4-8-1)

Finding Your Area

Reference the RNAV (GPS) RWY 21L, Prescott, Arizona (KPRC).

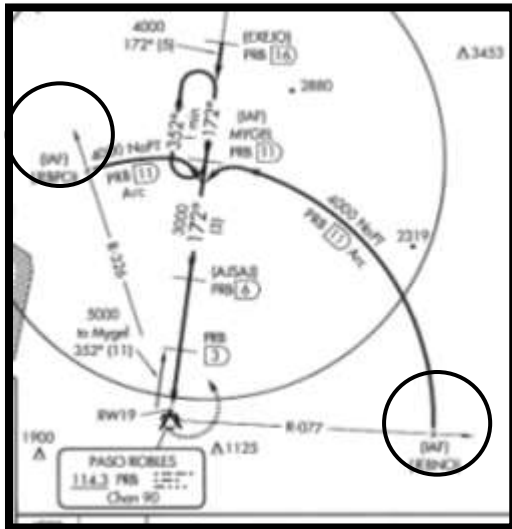
The DUKIW and AKUHY TAAs form two 90° pieces of the pie.

- If flying a bearing of 90°, direct to DUKIW, you'd be in the **Right Base Area**.
- Once in the DUKIW TAA, you are expected to descend to 9,600 feet.
- If in the AKUHY TAA, (**Left Base Area**), you are expected to descend to 10,000 feet.
- The PEVYU TAA (**Straight-in Area**), has two MSAs; 11,400 feet (30 to 12 miles from PEVYU), and 9,100, (12 miles from PEVYU).
- Once passing DUKIW or AKUHY, note the 9,100' **NoPT** legs from DUKIW and AKUHY inbound to PEVYU.



DME Arc Approaches

- Selecting an **IAF** from the approach menu, displays the arc on the GPS.
- If you plan to be vectored to the final approach course, (no arcing), select “Vectors” from the approach menu.



Reference this VOR/DME or GPS RWY 19 at KPRB, (Paso Robles, CA), there are two IAPs for the approach: **JEBNO** and **JEBPO**.

Finding Arc fixes for the GPS Arcing Approaches



“JEBNO” and “JEBPO” cannot be found in the database. Instead, the choices are “D077K” and “D326K”.

The VOR/DME or GPS RWY 19 approach uses the PRB 11 DME arc. Approach databases use a letter to represent the arc’s DME. See the table below.

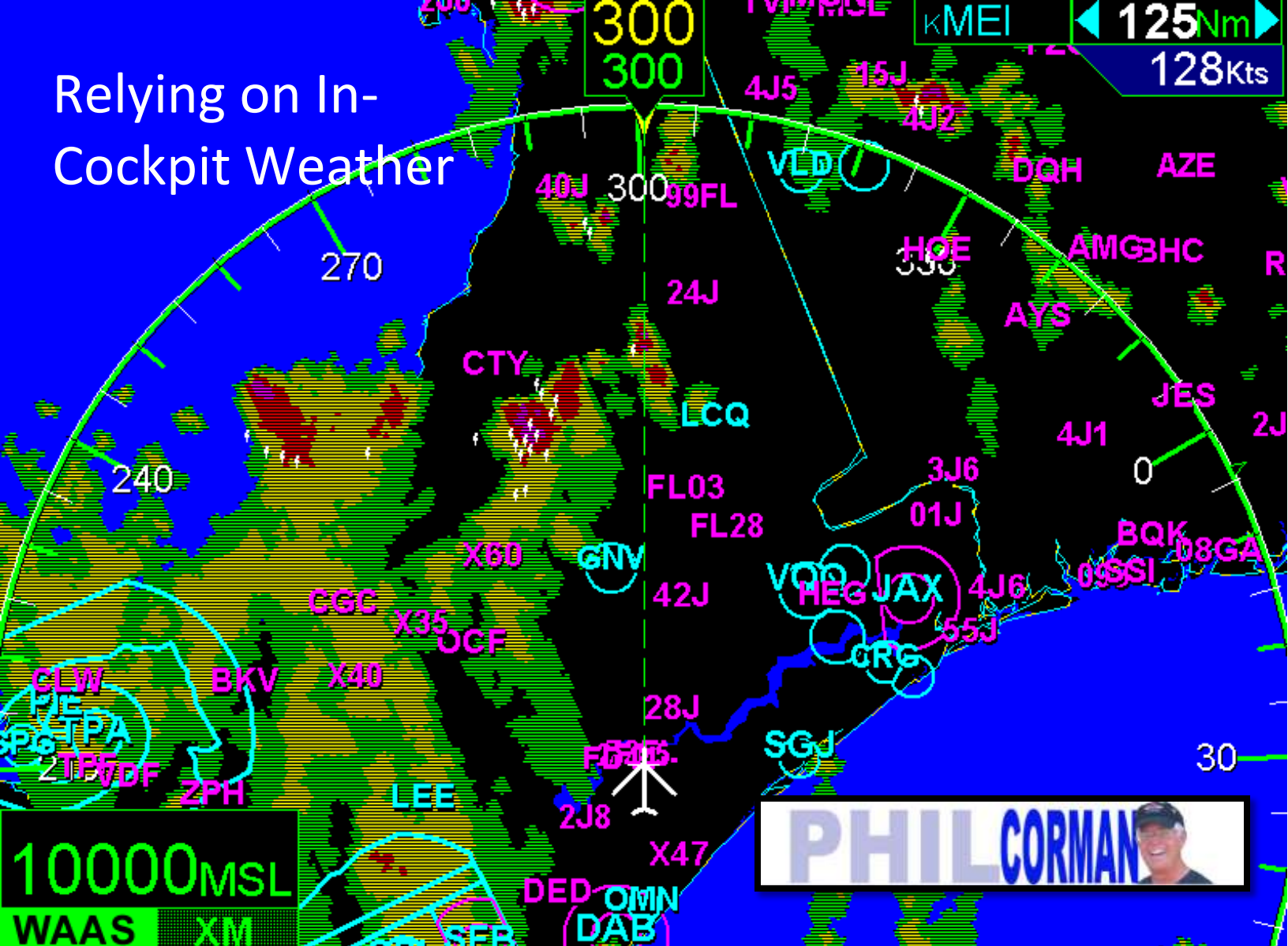
Letters for DME Arc Distances		
A = 1	B = 2	C = 3
D = 4	E = 5	F = 6
G = 7	H = 8	I = 9
J = 10	K = 11	L = 12
M = 13	N = 14	O = 15
. . . . etc.		

K is the 11th letter in the alphabet:

- D077K means the 077° radial, **11 DME** (JEBNO).
- D326K means the 326° radial, **11 DME** (JEBPO).

*Fly Safe,
Jim*

Relying on In-Cockpit Weather



There are two primary sources of in-cockpit weather displays for Mooney pilots; XM Weather and ADS-B FIS-B. The advent of these services has added significantly to our situational awareness of weather during a flight. Before these services, the main source of weather during a flight was via a voice transmission to Flight Watch or a nearby FSS. These serve a purpose, but don't give you a solid picture of the actual weather. In the NEXRAD illustration above, the PIC can clearly see where there is light, moderate, or severe precipitation as well as lightning strikes and much more. The depictions seem so precise that you can be lulled into believing them without question, and therein lies a huge misunderstanding which leads to poor judgement.

These NEXRAD depictions are not necessarily completely accurate, and to be sure, they have a time lapse from the time the images are created and the time they are finally transmitted and displayed on your device. This delay is called latency. In our opinion, in-cockpit weather services should only be used for strategic, or "big picture" weather avoidance. These NEXRAD displays definitely should NOT be utilized to "thread the needle" in either VFR or IFR conditions. Using in-flight weather services (NEXREAD) for tactical weather avoidance is also a No No.

Consider the NTSB transcript on the next page:

NTSB Identification: ERA12FA566

14 CFR Part 91: General Aviation

Accident occurred Monday, September 17, 2012 in Crane Hill, AL

Probable Cause Approval Date: 11/17/2014

Aircraft: MOONEY M20M, registration: N1085A

Injuries: 2 Fatal.

NTSB investigators either traveled in support of this investigation or conducted a significant amount of investigative work without any travel, and used data obtained from various sources to prepare this aircraft accident report.

The pilot initially delayed the cross-country flight for convective weather, but later took off, encountered weather in a climb, and advised an air traffic controller that he was looking at “ADS-B” (Automatic Dependent Surveillance-Broadcast). As the flight progressed, the airplane climbed to 13,000 feet, and the pilot asked the next controller if there were any reports of icing ahead about 15,000 feet. The controller noted no reports of icing, “but quite a bit of deviation, quite a bit of clouds and precipitation in front of you.” The pilot requested 15,000 feet “to see if I can see things better,” which was approved by the controller. Upon switching to the next controller, the pilot was advised of moderate to extreme precipitation for the next 90 miles.

The pilot then stated that in looking at the ADS-B, he needed to deviate. Deviation was approved, and, 2 minutes later, the pilot advised the controller that he was making another deviation, which the controller acknowledged. Eighteen minutes after that, the controller told the pilot to change radio frequency, and the pilot responded, “unable, we’re battling some pretty bad...”. The airplane subsequently made numerous turns and altitude excursions, turning 90 degrees to the right and descending to 14,600 feet, then turning another 90 degrees right and descending to 14,100 feet. After making a sharp left turn, the airplane climbed to 15,500 feet, then made another sharp left turn, and, as it began a final rapid descent to the ground, the pilot issued several mayday calls. An examination of the wreckage revealed no mechanical anomalies that would have precluded normal operation.

The expected ADS-B cockpit depiction compared to real-time, ground-based radar indicated significant differences in the depiction of hazardous reflectivity (rain). In the ADS-B product, the airplane was depicted as being clear of moderate or heavy rain as it made its final various turns. However, real-time radar imagery indicated that the airplane would have been in or near moderate-to-heavy rain.

The pilot indicated to the controller that he was using ADS-B in a tactical manner; however, ADS-B is intended to be used in a strategic manner. It is unknown why the pilot lost control of the airplane in moderate-to-heavy rain; he may have become confused and lost situational awareness when turning into what he thought were clearer conditions per the ADS-B depiction but was actually worse weather. ADS-B does not show what the weather is; it shows what the weather was up to 15 to 20 minutes earlier.

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

The pilot’s loss of control in moderate-to-heavy rain. Contributing to the accident was the pilot’s reliance on ADS-B for tactical weather avoidance.

Here is a case of a pilot, under IFR, who made in-flight decisions based on inflight weather information. Some of the inflight weather data was in contradiction to data presented by ATC radar. Another factor that was not taken into account by the PIC, was that other aircraft were making deviations that weren't



apparent on the NEXRAD display.

The NTSB clearly placed the misjudgement on the PIC who was utilizing the inflight NEXRAD weather to make tactical flight decisions. We agree with this.

There are two skills here that we would like to emphasize. The first is that you should use an instrument, or in this case, a service, as it was intended. Inflight NEXRAD Weather is advisory only and

to be used for strategic flight path decision making. The second skill, perhaps less obvious, is that we are all taught how to recognize when an instrument has failed. The troubleshooting sequence helps us to determine which instrument has failed when similar instruments show conflicting information. These skills are even found in the FAA written exams. In the case written here, the PIC was presented with conflicting information from his cockpit NEXRAD display and ATC's radar/information. If the pilot had used troubleshooting skills, he could have made better decisions. ATC radar is real time. ATC information on deviations by other pilots is real. When presented with these conflicting inputs, a PIC could make a responsible decision to avoid any risky flight path moving forward and to make a conservative inflight decision.

It is critical that the pilot understand the capabilities and reliabilities of each instrument or service provided in the cockpit. It is equally critical that the limitations, or even deficiencies, be understood. Regardless, a good decision will rest on good judgement, and will also rely on evaluating multiple inputs, often simultaneous inputs, and determining the best action to take. The apt saying is to trust your instruments in Instrument Weather Conditions, not your eyes or other senses. But in this case, we say "Trust but verify" as well.

Safe Flying!

What is the cause of most aviation accidents? Usually it is because someone does too much too soon, followed very quickly by too little too late

Falling 100LL Prices? You Bet!



For eight years, we have been waiting for something to come along to infuse some life into General Aviation. Brothers and Sisters, the skies will be buzzing soon, full of sleek and happy Mooneys. That's



EPIC™

because fuel prices are soon to decrease. Why? On Friday, December 12th, 2014, Benchmark crude, West Texas Intermediate, fell below \$58.00 a barrel, that's why. That

translates to an average national auto fuel pump price of less than \$2.00 a gallon. Could it sell for much less than \$2.00? That depends on where you live, the effect of local taxes and the possibility of crude prices falling below \$58/barrel. My bet is that we'll see 87 octane pump prices of \$1.50 in 2015.

What about 100LL prices? It's always going to cost more than auto fuel. That's because 100LL normally sells for 150% of auto fuel pump prices. Always? No! Everywhere? Of course not! But, it's a good average.

For instance, if you visit a top of the line commercial FBO at a major corporate



airport near one of our larger cities, you will pay up to 200% of auto fuel prices. Why? Because they can.



When will we see lower 100LL prices? My dear Mooniacs, it takes a while for suppliers to get rid of the high dollar fuel in their inventory and they will not lower prices until that happens. That could take 90 days or more. Conversely, 100LL leads the increase in auto fuel prices as the price of oil becomes more expensive.

What do you think the average price of 100LL will be in 2015? \$2.25 to \$3.00!

Get ready to strap into your Mooney and fly!





Geoff Lee.
CFI

Cloud and Fog season

Early winter is the time of year for morning fog on the coast and lingering areas of fog inland. It is also some of the best VFR flying weather of the year because it's cool, clear, calm and sunny. For instrument rated pilots, the absence of early blue sky does mean that you need to wait for the fog to burn off.

Filing "IFR to VFR conditions on top" and flying it is a really simple exercise in order to top a fog layer above the airport. It is prudent to be sure that you can immediately return to the point of departure in the event of any immediate "difficulty", so having the appropriate approach plate handy is something to consider. Reviewing the necessary approach minimums for your departure airport and determining that they actually exist prior to departure is a



good thing to accomplish before pushing that throttle forward. It is forever stimulating to emerge from beneath a gloomy fog or cloud layer and burst into the bright sunshine. However, you should always have an escape or a backup plan.

If you are lucky enough to be operating out of a towered airport, a "local clearance", "IFR to VFR conditions on top", or a short route clearance to a nearby navigational fix, can be issued by the tower. *(Busy towers are not always amenable to this. I have noticed lately, that they remind you that you could*

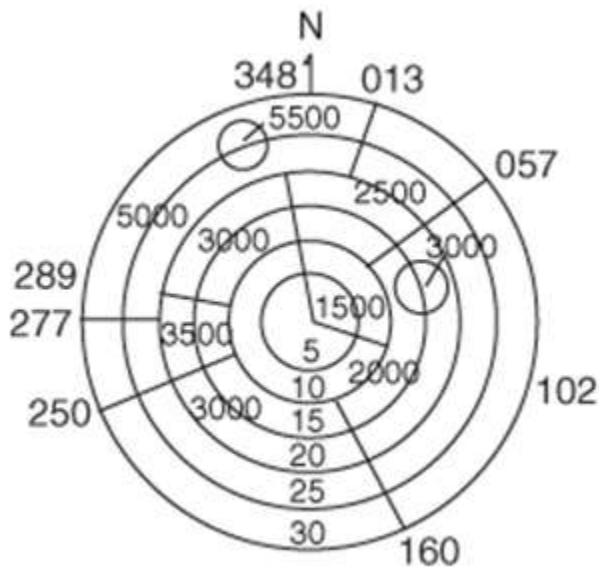
have filed it by telephone at home. I always thought that the original idea of the "local clearance" was devised as a convenience to facilitate a spontaneous departure. The short route clearance seems to be preferred lately at non tower airports. The controller needs to know the runway from which you are departing and direction of route in order to make sure he keeps any overflying traffic clear as you break out on top. With a simple IFR to VFR clearance, you could depart on any runway on a calm day at an uncontrolled airport. The controller will expect you to comply with any published departure procedure for the runway you choose. The pilot should be aware that when departing from an uncontrolled airport, **the aircraft may not be in radar or communication contact until the aircraft is well above the fog layer.** This situation is prevalent at E16 in the South Bay because the controller cannot communicate with the pilot until the aircraft climbs above approximately 1,200 ft AGL.

If you want to know the "minimum vectoring altitude" in the area of an uncontrolled airport, ask the controller!

Minimum vectoring altitude (MVA) is related to local terrain and to some degree, the location of the radar repeating or communications installations. There are several different MVA sectors in California.

MVAs are established for use by the Air Traffic Controller (ATCO) when Air Traffic Control (ATC) provides a surveillance service (usually radar).

The minimum vectoring altitude in each sector provides 1000 ft above the highest obstruction in non-mountainous areas and 2000 ft above the highest obstacle in designated mountainous areas. The MVA is the lowest altitude that meets obstacle clearance requirements in the airspace specified.



At non tower fields, it is necessary to first file by phone and get the clearance read to you via a **second phone call to a different phone number**. This is done in the run up area, just prior to departure. You will be provided with a "void time", which is an expected departure time, usually within a very few minutes. So, you should have your **run up completed** and be **ready to roll before making the clearance phone call**. Any time that you file for a departure at a non towered field, be sure to **request the phone number from which to acquire the clearance in the run up area**. Preflight your cell phone. Determine that you have your cell phone and that it

functions! (A depleted cell battery and no charging cable is incredibly frustrating; been there done that.)

It is prudent to understand that you are **not necessarily fully protected** or separated from other traffic by the controller when you are in the initial climb phase **from an uncontrolled airport**. Obviously, if you cannot communicate with the controller, he cannot guide you. There may be VFR traffic above the fog layer, but below the MVA or approach/enroute radio reception altitude. **Listen carefully on the UNICOM frequency** prior to departure.

The typical IFR to VFR clearance would take the normal C.R.A.F.T. format :-

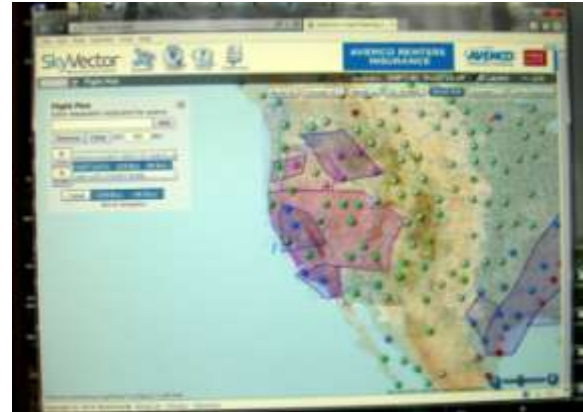
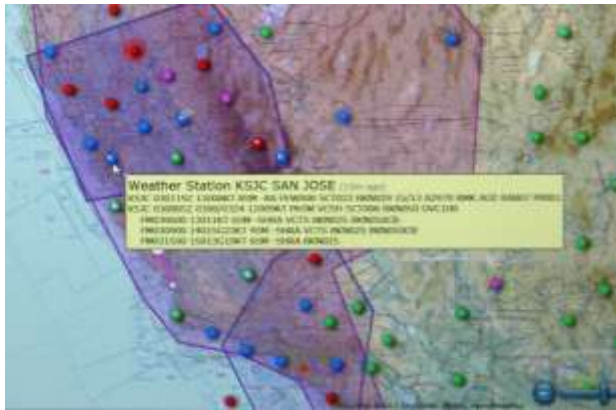
- C. Mooney 6740N is cleared to the San Jose VOR (*the Clearance and its positional limit*)
- R. Maintain runway heading to 1000ft, then right turn to a heading of 265 degrees, intercept the San Jose 85 degree radial and proceed to the San Jose VOR. (*The Route*)
- A. Climb and maintain 5000 ft, report reaching VFR conditions on top. If not on top by 5000, advise.
(Assigned **Altitude**)
- F. Departure control frequency is 121.3, (**Frequency**)
- T. Squawk 4742 (**Transponder code**)

Unless you possess a photographic memory, (*I surely do not*), developing one's personal shorthand for copying a clearance is a must. Examples of these methods abound. An alternate suggestion would be, at your home airport, phone the tower at a slack period and, pencil ready, ask the controller to read you the standard IFR to VFR clearance for each runway over the phone. Keep a copy in your bag, your IPAD or on your super 'phone and you can *read back like a pro in the run-up area*.

A VFR cross country flight that is above a fog or cloud layer can be accomplished safely with careful preflight planning. Of course, the capability to depart in VFR conditions and the ability to terminate the flight in VFR conditions at the intended destination must be firmly established during the initial planning process. Departing up through that first smallish hole in the fog layer can be fraught with danger if the pilot has no idea what is in store above the layer. The list of hazards runs from finding another layer less than 1-2 thousand feet above the first, to emerging amongst a forest of building cumulus. Flying between narrowly spaced layers under VFR is a fool's game, unless one can see or know where the end

of either layer is. The layers can merge and surprise, you're immersed in an IFR domain. In addition, sloping layers can be spatially disorienting. Getting available PIREPS regarding "on top" conditions when checking the weather is one good step, but they are not always available for early departures. The presence of cumulus is evident on weather forecasts and not frequent on winter mornings. The safest plan is to wait until that hole is very wide and very blue. Three miles wide is a reasonable size, and then one can return through a hole that size in the advent of any uncomfortable circumstances.

Planning the route over the top of a cloud or fog layer should include diligently checking the METAR at each airport along and on either side of the route. Having an alternate VFR destination is a must in the event that upon arrival, the final destination is not VFR. I realize that most pilots have some brand of "pay per view" planning app on some kind of portable device. A subscription **free** and very **useful quick look** at the overall weather situation and immediate METAR weather readout on reporting airports adjacent to a planned route can be obtained from the "**SkyVector**" planning application. It is very simple to use, and it can be uploaded to your desktop with little ado. No need to haul out the iPad or Garmin handheld. The app cannot be loaded on the iPad, but it can be accessed via SAFARI and your search engine.



The weather indicated adjacent to an airport on SkyVector, with a poke or a mouse click, is a **METAR which has been produced by the airport sensing equipment** and it's updated **each hour**. The **age of the weather tag** is shown at the right of the airport name. **TAF reports are produced by a meteorologist** and cover a five statute mile radius from the airport center. The TAF is updated **each 6 hour period**. It seems like METAR information is tactical and TAF information is strategic.

The Red dots represent airports with less than 1000ft and 3 miles under solid IFR conditions. The Blue dots have visibility above 3 miles, but have ceilings below 1,000ft. Green dots are VFR airports. The large, lighter shaded areas show conditions of mountain obscuration.

An IFR or VFR go/no go decision can be made or the route can be readily plotted with this broad view depiction. It gives a great overall picture of weather conditions over a wide area and gives you a pinpoint look at conditions for specific airports along a prospective route. It is a valuable pictorial supplement to the verbal weather briefing.

Mooney meets Porsche for the dawn of a new mystique.

Introducing the Mooney PFM. Powered by Porsche. And driven by obsession.

It was obsession for performance that spawned Mooney's revered line of fast, efficient, and aerodynamically superior personal aircraft. It was a similar passion that created the ultimate German road car and the worldwide Porsche mystique. But it was sheer logic that brought Mooney and Porsche together in the Mooney PFM.

That's PFM as in PFM 3200, Porsche's new aircraft

engine that draws on over 75 years of aviation heritage and relies on basic design components of the legendary Porsche 911 sports car engine.

Light-weight, air-cooled, horizontally opposed, with six cylinders, the 217 hp PFM 3200 seems made for a Mooney. Engine and

airframe merge as a precision flying machine. Exceedingly responsive, uncommonly smooth and quiet—like a fine road car. The Mooney PFM also brings advanced digital instrumentation

and European styling to the cockpit. Twelve extra inches of cabin length. And turbine-like single-lever power control activated by a dual electronic ignition system.

So now the airplane often called the "Porsche of the skies" is available with a genuine Porsche engine. Which is only logical. And aviation's next generation has a ready-made mystique.

The new Mooney PFM. Airframe by Mooney. Power by Porsche. Because you know a Porsche was meant to make you fly.



Mooney

Call your Mooney dealer today. Or Mooney Aircraft Corporation: 1-800-356-6931. And find out more about the Mooney of your choice.

©1988, Mooney Aircraft Corporation
WRITE IN NO. 43 ON READER SERVICE CARD

Copyrighted material

My opinion.

Adopting New Stuff... Nobody Asked

by Phil Corman

I'm sure you have heard this from other pilots, maybe even yourself. It goes something like this: "Real Pilots... ", (you fill it in). Real pilots only fly with Round Gauges... Real Pilots don't rely on Glass Panels... Real pilots can fly NDB approaches... Real pilots dull their navigational skills by relying on GPS instead of VORs and/or NDBs... It goes on and on.

Let's get back to Stick & Rudder, but not the book because Wolfgang Langewiesche is wrong on many of his points. Geez... What's up with us pilots? Do we just long for the good old days, or are we simply believers in the age old methods that are tried and true? Are we simply curmudgeons, Luddites or neither?

Pilots have lamented for years each time new devices in the cockpit have been introduced. My grandfather used to twist this instrument until the signal was the loudest. That indicated the direction he had to fly to intercept that beacon, or whatever it was called. Then came NDBs with ADFs in the cockpit. I'm sure my grandfather's brain flamed with "Real pilots fly the wire" and "using ADFs makes for less competent pilots". Can you imagine the degeneration of pilot skills when VORs were introduced? My goodness, good old pilot skills are just withering away, or so some would say. Every once in a while, pilots just need to turn those VORs off and fly by Dead Reckoning or Pilotage, else their skills will wither.

Recently I read an entry in one of the hundreds of social media forums or mail lists, congratulating a student pilot for planning a flight with paper VFR sectionals instead of using the iPad with an app, such as ForeFlight. Why does that matter? Why does paper make you learn better? Isn't it more about understanding how to interpret a VFR sectional and perform flight planning with it? In my simple brain, the only thing a student pilot won't learn on an iPad VFR sectional is how to fold the chart while maintaining altitude and heading, or knowing when to fold the current chart and unfold/refold the next chart. I think that skill is more appropriate for an origamist, but nobody asked me.

I also love the "What will you do if your Garmin 530, or 650, or iPad fails inflight? Wouldn't you expect that this pilot would simply continue if he knew where he was and where he was going? Perhaps pilots could use a backup such



as paper, or another device; maybe a VOR to assist in navigating? Using new technology is not, of itself, dangerous or unwise! I just don't get that you are a better pilot if you use paper.

Now, nobody said this yet, but relying on one instrument for anything is just not good piloting. The best pilots are always about redundancy. The first level of redundancy is to have another instrument to fall back on should the first one become inop. In the case of ForeFlight on an iPad, that might mean another iPad, or another app such as WingX.

As to pilot skills withering away by using new technology, such as moving from "the wire" to NDB to VOR to GPS. That's just plain wrong. What pilots have to do when learning and/or adopting new technology in the cockpit, is to develop redundant skills. What do I mean? Periodically, shutoff the new technology and force yourself to maintain your skills on the backup/redundant instruments. It's that simple. When was the last time you shutoff your GPS on a new and lengthy flight?

Been doing it for 40 years... Don't see any reason to change now!

It's not only about maintaining your skills with new technology, but it's also about having a backup plan when old, tried and true instruments fail? When is the last time you practiced landing your Mooney without using your Airspeed Indicator?

So what's my point you ask? It really is simple. As Mooney pilots, we like performance coupled with economy. We want to go fast, but use the least amount of 100LL. It should be the same with technology. It improves the efficiency of your flight planning and/or your flight. It can provide more information and situational awareness than ever before. The risks are threefold. First, you might be spending more time tinkering with your new Garmin GTN or Aspen MFD than flying the airplane. Wrong! Learn these devices at your desk, not in flight. Second, maintain the skills required if these new devices become inop, (usually at the worst times). Third, have backup instruments in your panel, in a portable, or on paper. It's all about redundant devices and redundant skills.



So, you are not a better pilot if you use paper charts and you are not a better pilot if you navigate by pilotage. Conversely, you are not a better pilot if you have the latest glass panel. You are a better pilot if you have excellent stick and rudder skills. In VFR conditions, you should be able to takeoff, cruise anywhere, and land without any instruments. If you can do that, then you need not worry about withering your skills away by using your Garmin 750 with ADS-B, an MVP Engine Monitor, and an STEC-55X

Autopilot. Those things just give you the information to be a more efficient pilot. And let's be honest, it doesn't make you a better pilot to have all these toys in your panel. It makes you cool! Only kidding.

Mooneys are near perfect. All they lack is the ability to forgive.



I Used to Make Good Landings

by Bruce Jaeger

Watching a long body Mooney land like a bucking bronco remains a vivid memory. Thanks to the rugged landing gear, the only results were stressed shock discs and a terrified pilot with a bruised ego. Like other similar situations, this pilot was experienced.

So what's the deal? The Mooney flies wonderfully and in my opinion has elevator authority superior to any other high performance general aviation airplane. If that moving tail is properly trimmed, the Mooney will almost land itself. On the other hand, if not trimmed, the forces will get heavy. To varying degrees, this is the case with every Mooney model.

Such little drag on the unique Mooney tail and all that elevator authority may actually be part of the problem. Flying this wonderful tail requires precise pilot technique as the elevator is so responsive. I have often used the analogy that learning how to properly land a Mooney will help a pilot make better landings in any airplane.

Too much or too early up elevator when landing a Mooney can quickly lead to pilot discomfort. The nose will rise and the settling of your Mooney to a smooth landing may stop. The result can be too little airspeed continuing to diminish with the nose high and still a number of feet off the ground. Now imagine pushing the elevator forward. Not a pretty picture. The only reasonable recovery is adding power. Such a critical situation should absolutely never happen.

From my perspective, a comfortable landing first requires maintaining a series of target airspeeds throughout the approach, all the way to a point of transition or flare to touchdown. The right pitch or look through the windshield, aided by trim is helpful. Keeping your flare or transition point at a constant spot in the windshield during that final approach all the way to flare is a great assist. When airspeed is most critical on short final, it is aggravated by weight and three blade propellers. On that short final, changes in attitude and airspeed happen quickly as power is reduced. For whatever reason, so many pilots seem to be concerned about striking a propeller when they are nowhere near the ground. As an instructor, I have experienced innumerable times when during a final power reduction for landing, my client is pulling on the control wheel while I am trying to relax it ever-so-slightly forward. Very little control wheel movement is required to maintain that perfect airspeed until the precise moment for truly starting your transition or flare to touchdown.

From my experience, relaxing the elevator slightly down at the time of that last power reduction is the most significant key to comfortable, consistent and even perfect landings – literally every time. Though important in the lighter models, this technique is even more critical in the heavier three-blade Bravo, Ovation and Acclaim.

Finishing the landing takes patience. A little up elevator slows the descent. Additional gentle up elevator or trim creates that desired landing picture right through the windshield. Patience is now the second critical key as your Mooney settles toward a perfect touchdown. In that bucking landing there is no way the pilot is able to continually see the runway through the windshield. My heartbeat rises every time I see a Mooney pilot raise the nose during landing and the runway disappears.

From that perfect landing attitude, allow the main gear to touch down just before stall. This technique enables the pilot to keep the nose wheel flying until the slowest possible speed. If the attitude is right, a

slight over control or wind gust is quickly and comfortably corrected with a touch of power. Being able to see also simplifies crosswind corrections.



As the attitudes are similar, it should be difficult for you to tell if the above airplane is about to lift off or land. Being able to see the runway through the windshield works well.

A quick review: The first critical key to great landings is maintaining airspeed as the power is reduced on short final. To me, this means relaxing the control wheel ever-so-slightly forward. The second key now becomes patience as there is quite a bit of time before touchdown. And the third key is establishing and keeping the right landing attitude look through the windshield. To ease your mind, the tendency to over control that responsive elevator diminishes right along with airspeed.

Practice landings with a purpose. Try making a few approaches with the thought that as power is reduced it is gone until the landing is complete. A few landings with this goal will keep you from chasing the power and glide path, thus helping with trim and stability. Also, put in your mind that once the elevator is moved aft, establishing a landing attitude, it is not to be moved forward again until taxi. Not even as little as ¼ inch. Such practice will help you stabilize approaches and eliminate the tendency to over control. The importance of continually seeing the runway through the windshield cannot be overemphasized.

If concerned about propeller clearance, it may be helpful to compare the look through the windshield during takeoff to what you want to see during landing. No one has ever been concerned about striking a propeller during takeoff. When touching down with main gear to be followed by the nose, your propeller certainly has more clearance than during that initial takeoff roll. Most propeller strikes happen when the elevator is pushed forward during a botched landing.

Most Mooney pilots are pleased and comfortable with their skill and techniques. However, if landings may not always be as you would like, I hope that these thoughts help you.

SHOULDER HARNESS KITS



- Factory Style, 3 Point Diagonal Design
- Factory Quality, TSO-C114 AMSAFE Belt Systems
- Choice of Stock Colors or Special Order, Same Price

Fixed Strap – \$299.00 Per Seat, Inertial Reel - \$399.00 Per Seat

- M20C – G “Minor Change” Installation Kit **\$35.00** 2 Seats

AIRCRAFT JACKS – THAT FIT



Three Leg Design
Rugged Construction
#6000 Capacity Ram
Range 24” – 41”
Locking Safety Collar

MODEL 324 \$249.00 EA.

Tail Stand / Weight Available

Online at www.alphaaviation.com

Alpha Aviation Inc.

1505 Chateaulin Lane Burnsville, Minnesota 55337

1-800-653-5112 1-952-856-5158 (fax)

As there are so many differences and opinions, I am always interested in hearing from Mooney pilots. I will do what I can to answer questions. The best way to learn is from each other. Send your comments or inquiries to bruce@jaegeraviation.com.

Fly Safe with Happy Landings, Bruce Jaeger



Vancouver, British Columbia

by Linda Corman

We had flown into Bellingham Airport (KBLI) in the state of Washington for a short vacation and decided, as we were already so close, to drive over the border and visit Vancouver, B.C. With a current passport, it is

easy to get into Canada. We drove into Vancouver and immediately fell in love with the city. Vancouver is situated with the English Bay and False Creek on one side, and on the other side, Coal Harbor and Burrard Inlet. It is practically surrounded by water. We picked a hotel that was located in the downtown area with the Burrard Inlet out our window. The [Renaissance Vancouver Harbourside](#) is on the waterfront and an easy walk to a lot of shopping and restaurants, as well as Stanley Island, which you can see out the Harbour side windows. We were very happy with the hotel and all the amenities. I recommend the harbor side of the building, not only for the views, but because the busy street side was noisy. The Renaissance Vancouver is a high end hotel and the beds are amazingly soft and plush. For a few extra dollars, you can get a room with a balcony overlooking the harbor. The Burrard Inlet has a constant flow of ships coming and going into the harbor and out. Some of them are cruise ships leaving

from [Canada Place](#). Canada Place is a convention center that has a cruise ship dock with restaurants, shops, and an Imax theater inside, all within walking distance to our hotel. This place is hard to miss as it looks like a tall ship under full sail.



We loved the idea of leaving our rental car in the safety of the hotel garage and walking everywhere. One of our favorite places was the [Gastown](#) area. It was named for the owner of the first saloon in Vancouver. You know you have entered Gastown as the streets become cobbled and the buildings take on a very European flavor.

One of the highlights of Gastown is the steam clock on the corner of Water and Cambie Streets. The clock was built by a local clock maker and is powered by an underground steam system. Watch for a burst of steam every 15 minutes as the clock chimes to the Westminster theme. This area of town is wonderful for the shopping and quaint restaurants lining the streets and alleyways. We did notice that in Vancouver, there is a coffee shop on almost every corner.





Our next walking tour was to [Stanley Park](#). This is a beautiful and lush peninsula that juts out into Burrard Inlet. There is a Seawall Promenade that circles Stanley Park and you see lovely water and city views. Along the walk are interesting stops like the Bird Sanctuary and the totem poles. A nice surprise is a statue of a mermaid on a rock out in the water. We cut inland and found a great aquarium with Orcas, sea lions, sharks and the best Beluga whales I've ever seen. As we

stood and watched the Beluga, they seem to do tricks for us. I asked one of the attendants about them and he laughed and told us they are doing tricks as the aquarium is a rehab center for rescued marine mammals and retired whale show performers. As we were getting a little hungry, we asked about local restaurants and we were directed to the [Teahouse](#) on the west side of Stanley Park. We were happy they suggested it to us. The place had a very English flavor, with outstanding seafood and wonderful views of the ocean.

The next day we decided to take a car trip and headed across the Lions Gate Bridge to the [Capilano Suspension Bridge and Park](#). The bridge was opened in 1899 and spans 450 feet across the deep canyon of the Capilano River. Walking across the wood and wire bridge is a bit nerve wracking as it sways and moves with the wind and is 230 feet above the river. Over the bridge are easy walks on some nice trails that take you to gardens, waterfalls, and a totem park with totems carved by "first people", native North Americans. From the Park we traveled a short distance to Grouse Mountain. This is a ski resort, but they have a gondola that runs all year round. The gondola takes you up to the top of the mountain with great views of downtown Vancouver, Stanley Park, and the Pacific Ocean. Also, at the top near the gondola are two carved wooden statues of two very fierce symbols of Canada. One is an upstanding Grizzly bear and the other is a hockey player.



On our last evening in Vancouver, our hotel concierge recommended a great seafood restaurant. As it was late and we had parked the car for the evening, we decided to take a cab to the waterfront and dine at this restaurant. Our cab driver was great fun and he treated us like ordinary tourists, driving us

through some seedy parts of the city in a roundabout way to the waterfront. As we passed through a shady neighborhood, he said that he could probably get us anything we might want like narcotics or a “lady of the evening”. We didn’t respond. A few minutes later, he started asking us what we did for jobs. I then explained I was a retired Deputy Sheriff, at which point he said he was only joking and drove us straight to the restaurant. I guess cabbies are the same in any large city. After our fun with the cabbie, we were happy to find the restaurant and it was everything the concierge said, with fresh and wonderful seafood.

One more tidbit for the shopper in the family, Vancouver is a shopping city. There are malls, specialty stores, native arts and crafts, and if you are looking for boutique clothing, the place to head to is Gastown. Needless to say, we really enjoyed our little trip across the Canadian border and would do it again any time. Next time, we might just fly, as getting there is half the fun in our Mooney.

*Vancouver is
a city for
coffee lovers.
On one
intersection,
there were
Starbucks on
two corners.*

Getting There

We decided to land in the USA to avoid the Canadian User Fees, the US Customs & Border sticker, and eApis. We chose Bellingham, WA ([KBLI](#))



This airport is north of Seattle Class B and easily transited from the south. We enjoyed flying west of Class B and then turning direct BLI.

There are rental cars and the fuel and tiedown fees are reasonable.

Its less than an hour to Vancouver (55 miles) up I-5, then BC 99. Don’t forget your Passport.

Things To Do

[Stanley Park](#): This is a wonderful place to spend the entire day. There are walkways along the bays, in the woods, and through grassy areas. There is a zoo and restaurants, plus much, much more.

[Gastown](#): This is the equivalent of Old Town Vancouver and a great place to spend an afternoon.

[Canada Place](#): This is both a place for large boats to dock and also hosts craft fairs and more

[Capilano Suspension Bridge and Park](#): A short drive over the Lions Gate Bridge will bring you to this park in a temperate rainforest with walking suspension bridges and lots of trails.

Restaurants

[Teahouse](#): This was our favorite lunch place in Stanley Park

Upcoming Fly-Ins



January 10, Leesburg, (LEE). The local EAA chapter will cook lunch for us like last year. Then, after lunch, we will transport everyone who is interested, to and from our house to see Ruth's Garden RR operation. She has about 1,000 feet of G gauge track, and if all goes well we should be running 6 to 8 model trains.

February 14, Bartow (BOW)

March 14, Fort Pierce (FPR)



Fort Myers, FL February 6-8, 2015
Santa Maria, CA April 24 -26, 2015
Chattanooga, TN June 5-7, 2015
Atlantic City, NJ September 11-13, 2015
Fort Worth, TX October 23-25, 2015

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



Send your questions for Tom to TheMooneyFlyer@gmail.com

Q1: What are the different mechanisms in short, medium and long bodies for warning about the Landing Gear not extended?

It depends on whether the Mooney has a manual gear or electric gear. When the gear are down and locked on the manual (Johnson Bar) Mooney, it shows up or down through a switch in the lock mechanism at the instrument panel. The Green light is out if you move the gear handle out of the locking receptacle.

The electric gear airplanes have up or down switches on the retract rod that is parallel to the gear actuator. All models have an instrument panel green light and many models have a white light in the window in the floor.

The floor light rotates with the gear bellcrank and many a wire has broken due to the rotation during gear operation. This does not affect the green panel light. There is also a gear warning horn on all models. An interesting fact is that between Paul, Don and I, we've repaired hundreds of Mooneys that had landed gear up, and both the horn and lights worked as designed.

Q2: Are there different mechanisms for preventing the pilot from retracting the gear while on the ground?

Not on the Johnson bar aircraft. Pull the handle and down it comes. The most common cause for premature gear retraction is the receptacle for the handle becomes worn or it was not properly locked. It will usually pop out while taxiing or during touchdown when the weight settles. It will break your wrist if you have your hand in the way.

On electric gear, there are "squat" switches on some early models; usually on the left gear. We had problems in the cold country from freezing of the switch or the discs not expanding. Somewhere in the late 60s, Mooney went to airspeed safety switches that use incoming pitot tube air. These are set somewhere between 65-75 MPH. Each model is different and in about 1977 they provided a bypass switch to bypass the airspeed safety switch. Basically, it's the same system still used today.

Every VFR approach should be planned and ready for a go-around and every IFR approach, a missed approach. It shouldn't be delayed or be a surprise.



SiriusXM and WSI - Wireless Weather for iPad



Hoping to compete in a market flooded with portable ADS-B weather and traffic receivers, SiriusXM Aviation is out with the new \$699 SXAR1 portable broadcast weather and entertainment receiver. The SXAR1 wirelessly streams WSI weather data directly to the iPad, eliminating the need for a panel display or a portable GPS.

An integral part of the interface is WSI's Pilotbrief Optima app for iPad, a program that supports WSI's own weather data. ***Pilotbrief Optima*** for iPad was born from WSI's desktop

programs, which are used for commercial flight planning.

Roughly the size of a thick smartphone and with a nonskid base, the SiriusXM SXAR1 Bluetooth WAAS GPS/satellite broadcast receiver is intended to rest on top of the aircraft instrument panel. It has an integral rechargeable battery with roughly seven hours of endurance, supports external antennas and can wirelessly stream optional SiriusXM Radio that's controlled in the Pilotbrief app. It also has audio output to Bluetooth headsets.

The app won't display ADS-B traffic and has limited navigational capabilities compared to other tablet navigation apps, but it will display IFR en route charts and VFR sectional maps with ownership and weather graphics overlay. It also displays approach charts, but they aren't georeferenced.

[READ MORE](#)

[WATCH THE VIDEO HERE](#)



FAA Introduces new NOTAM Site

This new site, part of the new Pilot's Bill of Rights, lets you search for NOTAMS by departure or destination. Even "cooler" is the feature that lets you find NOTAMS for airports along your route of flight and any alternates that you need.

[CLICK HERE](http://notams.aim.faa.gov/notamSearch/nsapp.html#/) to go to the site, <http://notams.aim.faa.gov/notamSearch/nsapp.html#/>

FAA Allows More Sim Time for Instrument Rating



Part 61 students will be permitted to log up to 20 hours of instrument time in an approved advanced aviation training device (AATD) or up to 10 hours of time in an approved basic aviation training device (BATD). Part 141 students will be allowed to accomplish up to 40 percent of their total flight training hour requirements in an aviation training device.

Another noteworthy change in the new rules is that students will no longer be required to wear view-limiting devices (such as Foggles) while training in ATDs. This is a somewhat surprising shift, in part because very few instrument instructors seemed to be aware that it was even a requirement. The FAA said the condition is no longer necessary because ATDs can adequately simulate IMC weather, though the agency stressed that instrument students must operate the training device solely by reference to instruments in simulated IMC to log the time toward their instrument rating.

[READ MORE](#)

New Garmin release enhances "connected cockpit"

Garmin, setting its sights anew on "the connected cockpit," announced the availability of the [Flight Stream 110/210](#) Bluetooth wireless gateway, enabling "connectivity and communication" between select Garmin avionics and the Garmin Pilot app on certain iPad/iPhone and Android devices. The release is Garmin's latest expansion of its [Connex](#) portfolio of products and features that are designed to provide "a true connected cockpit so pilots have easier access to information in flight."

Flight Stream 210 is compatible with the GTN 650/750 and GNS 430/530 WAAS series navigators, as well as the GDL 88 ADS-B Datalink and GDL



69/69A SiriusXM datalink receivers. It simplifies flight planning by offering wireless flight plan transfer capabilities that are accomplished "with a couple of taps once the avionics are powered on," Garmin said.

Customers who have a GNS 430W/530W GNS WAAS navigator will be able to incorporate Victor airway navigation into flight plans using the Flight Stream 210 and Garmin Pilot.

Customers who have GDL 88 ADS-B Datalink or GDL 69/69A SiriusXM Datalink may also take advantage of wireless connectivity with Flight Stream 110. "When Flight Stream is paired with the GDL 88, ADS-B traffic and weather is wirelessly transferred and displayed within Garmin Pilot," Garmin said.

Remote control of SiriusXM satellite radio is also available with a free version of Garmin Pilot.

Adding to the versatility of the Flight Stream 110/210, GPS location information from the GTN and GNS WAAS navigators, or GDL 88 with an internal WAAS receiver, can be shared wirelessly to display precise positions for use within Garmin Pilot.



Garmin Flight Stream 210. Image courtesy of Garmin.

Flight Stream 210 also contains an internal attitude sensor which provides back-up attitude information for display within **Garmin Pilot**.

"With a future software update, high-integrity attitude information from a G500/G600 flight display can take priority to display back-up attitude and heading information," the company said.

Flight Stream 210 is available immediately for a list price of \$999. Flight Stream 110 is available for a list price of **\$549**. Corresponding software for the GTN and GNS WAAS series is available as a free upgrade from Garmin Authorized Dealers. Installation charges may apply.

Learn and earn your way to becoming a better pilot

The [Aircraft Owners and Pilots Association](#) Foundation's (AOPA) [Air Safety Institute](#) (ASI) has launched the "Earn & Learn Safety Challenge," a new program that enters those who take aviation safety courses into a quarterly drawing for aviation gear.

A new prize will be awarded each quarter, beginning with a Stratus 2 ADS-B receiver – an \$899 value – courtesy of [Sporty's Pilot Shop](#). The first prize winner will be announced in April.

ASI's safety courses are available to both AOPA members and non-members. Participants will automatically receive a prize entry for each completed free online safety course, Real Pilot Story or Accident Case Study.

The more courses completed, the more chances each individual will have to win.



Pilots who are new to ASI courses can start with an easy, interactive safety challenge that will match them with a course tailored specifically to their experience level and flying style.

Visitors can take the challenge as many times as they like, or they can just go to the [ASI website](#) to view their online transcript to identify other courses that will enter them in the prize drawing.

Courses listed in the transcript with a gray star are eligible for the Learn & Earn drawing, while a gold star will depict courses that have been completed.

The Air Safety Institute's "Learn & Earn Safety Challenge" will run throughout 2015, with four separate winners announced in April, July, October and January. Visit [Learn & Earn](#) for complete rules and additional details.

WingX Pro7 Offers all CFIs FREE Subscriptions and Synthetic Vision; Pilots with a Current Subscription get FREE Synthetic Vision

[Hilton Software](#) has unveiled two new initiatives: CFI Free And SV Free

CFI Free provides every CFI with a free solution to integrate WingX Pro7 and WingX Rewind into their flight training.

Certificated Flight Instructors (CFIs) get the following for free:

- **A WingX Pro7 subscription including WingX Rewind**
- **An Advanced IFR subscription with Approach Chart Geo-Referencing and IAP Routing**
- **A Synthetic Vision subscription**

WingX Pro7 introduced Synthetic Vision on the iPad and iPhone more than three years ago. Synthetic Vision is now free for all pilots with a current WingX Pro7 subscription.

"We are very excited to announce two new initiatives as we head into 2015," said Dr. Hilton Goldstein, CEO. "The WingX Rewind launch has been incredible. Many CFIs are integrating WingX Rewind's record and playback capability into their flight training. We want every flight instructor to have this valuable instructional tool. Today we are introducing the CFI Free initiative so that Flight Instructors get a WingX Pro7 subscription, our industry-leading Advanced IFR Subscription, and our Synthetic Vision

subscription for free. But we didn't stop there. All WingX Pro7 pilots with a current subscription get our Synthetic Vision subscription for free. CFI Free and SV Free is our way of saying thank you for a wonderful decade of support."





Flight Stream 110/210 by Garmin

If you have already invested in a Garmin GDL 88 ADS-B Datalink or Garmin GDL 69 SiriusXM Datalink, then a Flight Stream 110 or 210 might be the perfect addition to your Mooney's cockpit.

The Flight Stream 110 offers GPS, attitude, weather and traffic streaming from the [GDL 88 ADS-B Datalink](#) and [GDL 69 SiriusXM™ Datalink](#), while the Flight Stream 210 adds the capability for flight plan syncing with the [GTN 750/650 series](#) and [GNS 430W/530W series](#) navigators, as well as the ability to display attitude information using an on-board AHRS. This enables you to



incorporate your iPad or Android tablet into your ADS-B enabled panel. Essentially, you are getting the high quality information from your panel into your Garmin Pilot app on your tablet. You can easily transfer flight plans, stream high quality GPS and AHRS attitude information to Garmin Pilot, including its 3D synthetic vision and overlay free, ADS-B weather and traffic. The Flight Stream is a small gateway box that enables Bluetooth communication between your tablet and your Garmin panel.

We really like the capability of performing a detailed flight plan at home on your tablet, rather than trying to enter it once you are in your cockpit. Develop your flight plan on the tablet, and once in your Mooney with the avionics powered up, simply transfer your flight plan to your GTN or GNS panel device. You can also transfer flight plans from your GTN or GNS panel to your tablet. The interface is both directions. The Flight Stream gateway will also support 2 tablets, so your co-pilot can follow along on his/her tablet as well.

Mooney Instructors Around The Country

Arizona

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

Boris Vasilev (CFI, CFII, MEI, AGI), Phoenix Are, Tel: 602-791-9637, email: boris@atieuhosting.com, Time in M20C through M20R models. Private commercial and instrument training, BFR's IPC's FAAWings

Connecticut

Robert McGuire, Durham, 203-645-2222 cell, rmcguire007@hotmail.com

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

California

Geoff Lee, San Martin, CA, 69050@comcast.net

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

Rodrigo Von Contra, Oakland, (510) 541-7283, Rodrigo@vonconta.com

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

Florida

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

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

Georgia

Jim Stevens, USAF, Col, (ret), CFII. Atlanta, GA area. 404-277-4123. Instrument, commercial, IPC, BFR, transition training. 20 year owner of 1968 M20F.

Kansas

John R. Schmidt (COL, USAF, Retired) Fort Leavenworth, Kansas and the Kansas City area. Instrument and commercial instruction, transition training, BFR. (913) 221-4937 jspropilot@att.net

Massachusetts

Ralph Semb, ralph@bowling4fun.com, 413-221-7535

New Jersey

Parvez Dara, daraparvez@gmail.com, 732 240 4004

New York

Jack Napoli, Long Island, kj4kqvh1@yahoo.com, 631-806-4436

Texas

Austin T. Walden, Lubbock & Abilene, Texas 432-788-0216, Email AustinWalden@gmail.com

PhD, Specializing in Models C thru J, www.WaldenAviation.com

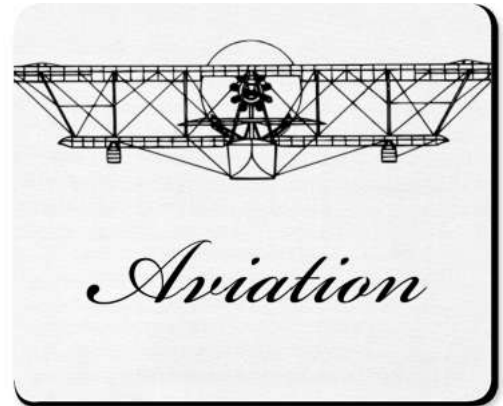
Brian Lloyd, Kestrel Airpark (1T7), 210-802-8359, Brian@Lloyd.aero

Mark Johnson, mjohnsonf16@hotmail.com, 832-773-4409

Jerry Johnson, mooney9281V@hotmail.com, 817-454-2426

Vermont

Ted Corsones, tedc@corsones.com, 813 435 8464



Rule of Thumb: A 10% change in A/C weight will result in a 20% change in T/O distance

Spatial Interior for the Vintage Mooney

I love my Mooney, but I want it to look better.

The effects of time, sunlight, temperature and wear have diminished the value of many Mooney aircraft. Yellowed and cracked window trim, side panels and headliners may no longer compliment the Mooney's beautiful lines.



These realities are exactly what motivated Spatial Interior developer, Bruce Jaeger, to come up with a new idea. Nine years in progress, STC approved Spatial Interior panels are starting to complement the upholstery in models from the early 60's to the latest K.

Securing without screws dramatically improves access to spots often hidden and neglected for years. Molded panels with deep recessed arm areas take better advantage of space between the cabin structure tubes. Armrests with finished pads add an elegant touch. Color coordinated storage pockets provide room for checklists, charts, personal and safety items, including a special spot for an iPad. The application of color coordinated automotive finishes provides protection, while creating a really neat look.



Specially shaped pieces of slim, FAA rated plastic surrounding the cabin door, looks great. These are easily installed and removed.

Bruce knew that Spatial Interior's success would hinge in part on being affordable. With this in mind, parts pricing has been held to a minimum and the installation process provides opportunity for help from an owner. Repair of original plastics is completed with inexpensive home store and hobby shop materials along with automotive aerosols.

Updating seat upholstery and replacing carpets can certainly be left for a later date. When the time is right, the Spatial Interior concept of increased space can be taken right to the back of the seat. The difference is surprising.

Your Mooney deserves to look its best. In addition to personal satisfaction, the added value may be more than you think. To learn more about the new Spatial Interior, visit www.jaegeraviation.com.



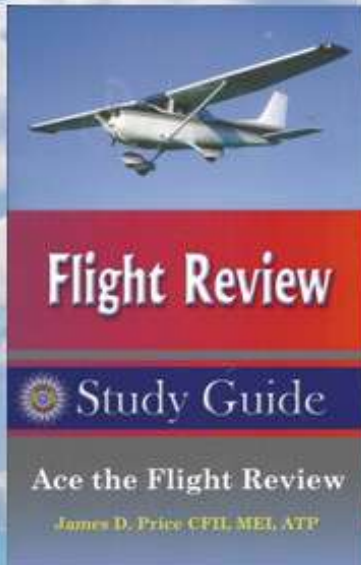
LASAR'S Free Site

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

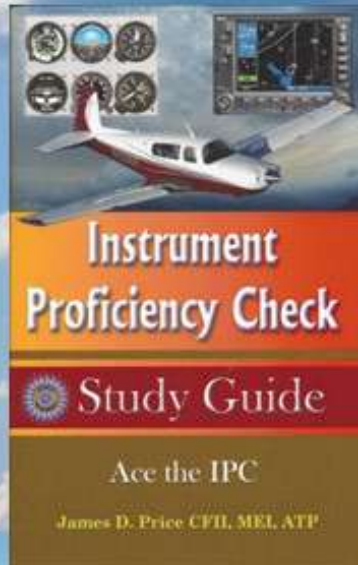


Rule of Thumb: Va decreases 1% for each 2% reduction in gross weight

Increase Your Knowledge



Flight Review
Study Guide
Ace the Flight Review
James D. Price CFI, MEI, ATP



Instrument Proficiency Check
Study Guide
Ace the IPC
James D. Price CFI, MEI, ATP



Aircraft Expense
Tracking
Aircraft Owner's Expense and Maintenance Tracking System
Single and Multi Engine
Sole Ownership or Club
James D. Price CFI, MEI, ATP

**Keep yourself safe,
proficient and living your
dream.**

Order yours today at
JDPriceCFI.com

CLICK HERE TO ORDER

