www.vintagemooneygroup.com

Table of Contents

From the Editor

Welcome to our second VMG **Mooney Flyer Newsletter**. The thing I love about the Mooney community is how incredibly nice people are. Our first Newsletter was just that but we received dozens of emails telling us how good it was. Since we are doing this as a labor of love, the feedback is our satisfaction. It's kind of like flying our Mooneys. Flying is the reward.

Flight Following Question: A Mooney owner asked me about VFR Flight Following. His question was if ATC wanted pilots on VFR to request it, or if it was simply an increased workload. The AOPA Air Safety Institute asked Ann Marie Taggio, a controller in Charlotte Tower, what controllers think about flight following. She said that controllers love flight following. Sometimes they don't' have time, but they still want the pilot to make the call. If you think you're not in the way, ATC is still talking about you. If you don't want flight following, at least key up the frequency, and listen to what's going on. Link: http://www.aopa.org/aopalive/?watch=k0czNoMjrFra3f8mrNMVq2EkXAd2cpLv

Take our first Mooney Flyer online poll. We are curious about people's attitude and use of Flight Following. Click Here to take the poll. You can come back regularly to check on the results.

In this issue, we are pleased to announce that we have added the

ability to **Appraise your Mooney's Value** using Jimmy Garrision's valuation. Jimmy is from All American Aircraft, the country's largest Mooney reseller. We have implemented the models for M20C, M20E, M20G, M20F & M20J. Click on your model to simply complete the valuation. You no longer need paper and pencil. Just another benefit to our subscribers. These forms are currently Beta test quality. Please send errors to us.

M20C M20E M20G M20F M20J

VMG member, Larry Palmer, forwarded this picture to us. Notice the tail and the number of engines. Who said a Mooney twin doesn't look great!

In this issue, we have some exciting articles. The first is **Trapped on Top** about the plight of a Mooney pilot based in Afton, Wyoming on a flight to the Seattle, Washington area. This flight was highlighted on the AOPA website, but our article offers "Lessons to be Learned" from CFII and VMG member Jim Price, who just recently purchased Wayne Fischer's 252. It's a tale of ignoring or not "listening" to the telltale signs of a problem. It ends with a fuel exhaustion incident. We think it's powerful to learn. You know they say we should learn from the experiences of others, because we won't live long enough to make all of the mistakes ourselves. Hope you enjoy the article.

It's nice to know the history of your aircraft manufacturer. We found an article on Mooney's first plane delivery in 1949 and thought you might enjoy the read. The first airplane was an M-18. Do you know why? It was Al Mooney's 18th design. I didn't know that. Anyway it's a fun read and I hope you enjoy it.

I've included an article on the ATC scenario of talking to center or approach and what you can assume or not assume about who is responsible for handoffs to Class B, C, and D airspace. You may be surprised.

In the ATC article, please read our Text Box on the FAA's revised reporting system for pilot errors. If you make a mistake and a controller catches it, make sure you fill out an ASRS.

We also included another iPhone (and iPad) app review. This app is FREE and called FlyQ, the result of a partnership between AOPA and Seattle Avionics. It's a simple tool for doing quick pre-flight planning with all the information you need on airports and weather.

VMG Member Gives First Class Flight to Shelter Dogs: *Member Greg Jacobs* flew 4 puppies from Hayward, CA to Medford, OR, where adoptable puppies were in demand.

In 1953, before funds were put in place for production of the M20, Mooney's financial backer, Charles Yankey, died of a stroke. In 1955, Albert Mooney sold his stock in the company to Harold Rachal and Norman Hoffman, then left the company to work for Lockheed Corporation. Shortly after, Arthur left Mooney to work for Lockheed, too.

In 1965, the company became the U.S. distributor for Mitsubishi aircraft and began selling Mooney MU-2 operating as Mooney-Mitsubishi Aircraft Inc. In 1967, Mooney acquired production rights to the Ercoupe from Alon Aircraft Company and produced a slightly updated version as the Mooney M10 Cadet. The M10 became the final Ercoupe variant, and production ended in 1970.

Mooney went bankrupt again in early 1969 and was sold to American Electronics Labs, then to Butler Aviation, which ended operations in 1971. For about three years, Mooney failed to produce any aircraft. In 1973, Republic Steel Corporation acquired the rights and tooling for Mooney and resumed production in 1974. The company continued aggressive product development, working on yet another pressurized single-engine aircraft to compete with the Cessna 210. The turboprop Mooney "301" eventually became the TBM700 and is now produced by Socata Aircraft.

PRESS RELEASE – LASAR (Lake Aero Styling & Repair)

Paul & Shery Loewen, owners of Lake Aero Styling & Repair "LASAR," a Mooney Service Center, located in Lakeport, California for the past 36 years, are pleased to introduce their new Service Manager, **Michael Riter**. Michael has been with LASAR for two years, moving from Washington State. Michael received his A&P license from South Seattle Community College in 1999, and also has his IA (Inspection Authorization).

Michael was the lead mechanic at Pro-Flight Aviation in Renton, Washington for 11 years, and also was a part time instructor at South Seattle Community College. He taught beginning and advanced airframe, beginning engine, and general aviation basics.

Michael has worked on all series of single and twin engine Cessnas, and on Beech, Piper, Bellanca, Mooney, and Grumman. His turbine experience includes King Air, Gulf Stream, Citation and Aero Commander, and he has worked on all Lycoming and Continental engines, P&W R985, PT6, and Allison 250 engines.

Michael relocated to the Lakeport area when his wife was hired as a sign language interpreter for a local school district, and according to him, "was lucky enough to find LASAR was in need of an A&P mechanic." LASAR feels very lucky to have him, too!

Editor's Note: I was fortunate to be one of the first customers to have my annual performed by Michael on my Eagle. It was my first annual after purchasing it. I have never had such a thorough job and since I was assisting, Michael took a lot of time to show and teach me what was going on. Great guy. Swing by LASAR and introduce yourself. It'll be worth it.

Mooney Mail

We so enjoyed getting the VMG Newsletter today in our emails. What a nice surprise to have the article about LASAR and Robert's retirement. We are going to miss him so much, but are excited about LASAR'S future with our "new" Service Manager, Michael Ritter. Michael has been with us 2 years, and is an A&P and IA. Robert has trained him well to take over the operations of LASAR (and Paul is working a little harder, too :-) . I will work on getting a little bio about Michael, so your members will get to know him a

little better. We SO APPRECIATE all the support VMG gives us. LASAR hopes to be around "forever!" **Shery Loewen**, owner Lake Aero Styling & Repair "LASAR"…..

I just read the Mooney Flyer newsletter and I feel compelled to write about what I believe is a serious issue. On the second to last page, there is a suggestion that C and E pilots can gain speed by deploying flaps. I would think this would mean the flaps will be deployed well in excess of the max flap speed, which can cause damage to the airframe… **Michael Coyle**

***Editor's Notes**:* Here are the answers confirmed by flight test: Drooping flaps 2 or 3 degrees to gain cruise speed resulted in gains almost too small to be measured with sensitive flight test equipment. Maybe I saw .5 KIAS increase when drooping the flaps a couple of degrees on our engineering flight test airplanes, but it was so small that it was basically unmeasurable. Theoretically, it does help reduce cruise trim drag (the drag due to the horizontal tail flying at an angle of attack to the relative wind), but it is so small as to be insignificant. It does not hurt the flaps or the flap structure to droop them 2 or 3 degrees. We would occasionally do this in flight test to aid some airplanes in maintaining hands-off, wings level cruise flight. For example, if an airplane exhibited a right wing heavy condition in level cruise on its first flight, we would either 1) bend the training edge of the right aileron up slightly, forcing the entire right aileron to fly a little "low" which aided the right wing heavy condition, or 2) droop the right flap a couple of degrees which accomplished the same thing (to raise the heavy right wing). Incidentally, you could never visibly see the droop in the flap if we put one in - it's too small a change to be noticeable. Response submitted by **Bob Kromer**

Here's a site with some incredibly useful **Maintenance Seminars** for FREE delivered by **Mike Busch** of the Savvy Aviator: http://www.savvymx.com/index.php/webinar. Topics include Oil, Annuals, EGT myths, Magnetos, Batteries, Alternators, Tires, Leaning, Troubleshooting, and more…

MOA and Restricted Airspace – You do NOT need clearance to fly into an **MOA** (Military Operations Area). It is shared. It's good practice to contact ATC and ask for the status and indicate your intentions. If a **Restricted Area** is active, you must get approval prior to entering, not usually granted by the controlling ATC. If the Restricted Area is not active, you do NOT need permission to enter and transit that area.

June 23rd at Camarillo, CA (KCMA)
hosted by Henry Punt

August 18th at Catalina Island (KAVX)
Hosted by Paul Kortopates

August 24-26 at Friday Harbor (KFHR)
Hosted by Jeff Mirsepasy

Also in August we will be revisiting the **San Juan Islands up in Puget Sound northwest of Seattle**. This is a weekend fly-in but if you are local, we will have our usual ramp time together on Saturday morning followed by lunch at the airport. Make your reservations now as it is prime season on the San Juans. Some of us plan to camp at the airport on Orcas Island. Let us know if you would like info.

Mooney Delivers First Plane – 63 years ago

August 23, 1949 from Aviation Week

With an NC for production model of single-place M-18, Wichita company plans production of 50 this year.

Wichita - A new test of the market potential in the U.S. for the single-seat ultra-light airplane will be provided by the tiny Mooney M-18 which has just received Civil Aeronautics Administration certification here for its first production airplane.

Veteran - Product of **Al W. Mooney**, veteran designer of the Culver Model V and many of the Culver radio-controlled target planes, the trim little airplane looks like a midget fighter with its low wing design and retractable landing gear.

Its primary advantage is its economy of operation, due to the use of a 25-hp. Crosley Cobra engine, adapted from the Crosley automobile. Plane will be priced at around $1600, the lowest priced airplane on today's market.

Plane delivered - W.S. Grant, Santa Monica, Calif., distributor for Mooney Aircraft, Inc., took delivery on the first production airplane, after it received its NC from **Charles G. Yankey**, president of the company and former president of Culver. Yankey is also a Beech Aircraft Corp. vice president. As Grant prepared to fly the airplane home, he estimated that it would cost him only $6 to $7 for operating expenses on the 1200-mile trip.

Cheap to Operate - On a recent trial run, **Bill Taylor**, chief test pilot of the company, flew 1682 miles in less than 20 hr. at an average cruising speed of 84.6 mph. and with a fuel consumption of only 1.55 gal/hr. The company has stated that the airplane can be flown 100 miles with a fuel cost of only 50 to 50 cents. The M-18 carries only eight gallons of fuelwith a range of 400 miles. President Yankey said that the general objective in development of the M-18 was to produce an airplane with low operating and maintenance cost, good safety characteristics and simplicity of operation.

Safe and Efficient - Designer Mooney, who is vice president of the new company, has provided a coordination of controls through interconnection which enables the pilot to fly the airplane at the most efficient control settings, thereby avoiding marginal and dangerous settings.

"This means," Yankey said, "that the pilot can take off, climb, cruise, approach and land in the safest and most efficient manner with assurance and confidence."

The M-18 stalls with ample warning, and in a stall, it has no tendency to roll; it merely drops its nose and recovers with little loss of altitude, the company states. This characteristic results from a Mooney designed and developed "safe trim" tail. The entire horizontal tail section is hinged and connected with the flaps to insure a safe trim of the craft at all times.

Because of its stall characteristics, Yankey said, warning instruments are "needless and useless."

Easy Landings - The M-18 controls are in trim with power on or power off and do not need or have trim tabs, thus relieving the pilot of the necessity of re-trimming the airplane. This characteristic is not found an any other present-day airplane.

The single-seater's retractable gear is raised and lowered by a lever which enables the pilot to know that his gear is properly down for landing.

Speed- The plane's sea level cruising speed is in excess of 85 mph. Top speed is in excess of 100 mph. The established rate of climb is 450 fpm., and the service ceiling is 12,000 ft.

The plane is constructed of metal, plywood and fabric. "We used the best material for each spot" Mooney said. All essential instruments are included -- airspeed indicator, compass, altimeter, tachometer, oil pressure and temperature gauges, ammeter, water temperature and fuel gauges. Wing span of the M-18 is 27 feet, length 18 feet, height 6 feet 9 inches. A Sensenich fixed propeller is standard equipment. Air scoop on the production model has been moved backward to be in line with the wing. Gross weight is 700 pounds.

50 Planes - Mooney Aircraft owns its landing field and plant facilities east of Wichita and already has announced plans to produce 50 of the light planes by year's end. This is Al Mooney's eighteenth plane design (thus M-18) and is the result of more than 20 years' experience in the design and development of light planes. "This is the culmination of Mooney's purpose to provide a safer and more economical means of transportation," President Yankey declared. "It affords the lowest cost transportation of all means now known. It means that an airplane now can be used for personal transportation in business activities because of the economy involved."

There are many sites to view to search for **aircraft sales**. But Global Plane Search is pretty valuable because it searches many of the popular sites in one click. It has an amazing search capability. An example would be "all Mooneys before 1975 priced between $45,000 to $60,000 since 7 days"
Give it a try at
http://www.globalplanesearch.com/view/all/All.htm

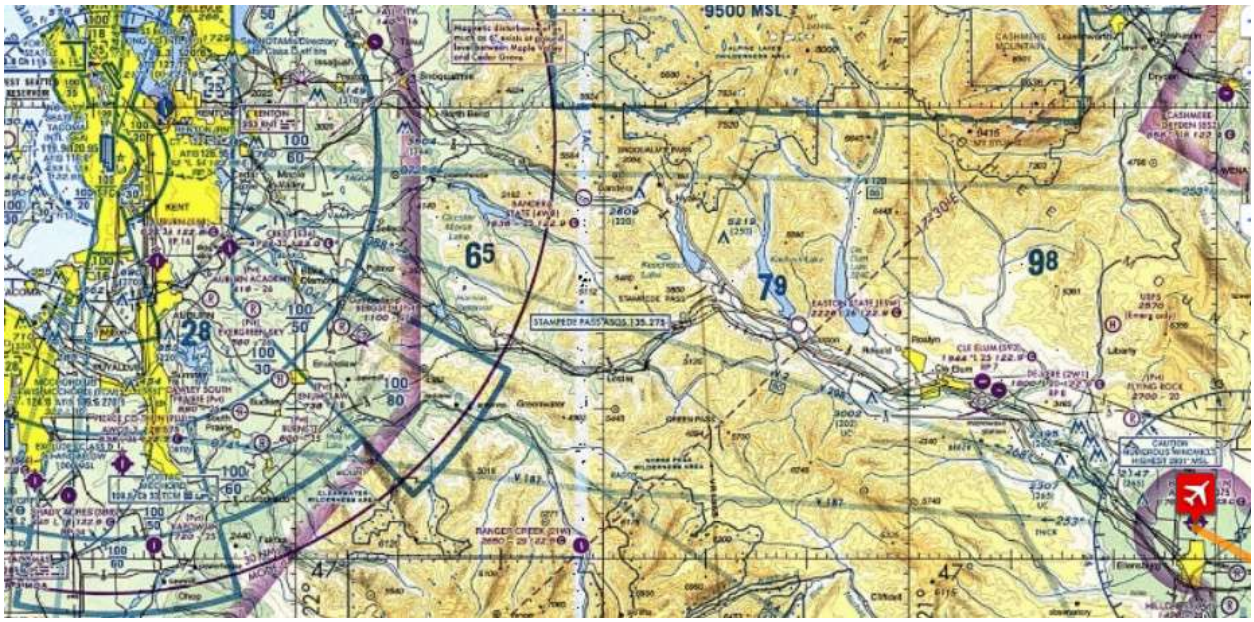
Trapped and Low on Fuel… A Mooney Pilot's Story

By Jim Price

I have a good friend who has a two red flag rule when it comes to flying. When one thing isn't perfect - that's one red flag. Add another little problem, and my friend is not flying. I like that rule. I like rules that keep me alive. This story is about Jim Lawson, an IA Mechanic from Afton, WY (KAFO). He started flying in the mid 1980s and holds a Commercial, plus a Seaplane rating. He flies about 30 to 40 hours a year in his Mooney M20D converted to retractable gear. Although he has an Instrument ticket, he's very rusty and has not maintained his instrument currency. His D model has a Garmin GNS 430 and a portable weather access (similar to the Garmin 396, 496 or Aera for XM Weather).

The D model was produced from 1963 to 1966 with fixed gear and a 180 hp Lycoming O-360-A1D engine. Mooney wanted to have a fixed gear entry in the flight training business, and also appeal to owners seeking lower insurance costs. Most Ds have been converted to retractable gear, essentially turning them into C models. Jim Lawson's D holds a little less than 5 hours of fuel (48 gallons - 4 gallons less than a C model), and travels at about 140 knots true.

On December 10th, 2011, Jim started out from Afton early in the morning, flying Christmas presents to his son's family in North Bend, WA (East of Seattle). He had checked the weather before departing for Ellensburg, WA (KELN), depicted by a red and white aircraft symbol on the map below. However, upon arrival he found overcast skies. He was trapped above the clouds.



Distance flown from Afton to Ellensburg: 484 nm. Fuel used: About 35 gallons. Time flown: About 3.6 hrs. Fuel remaining: **13 gallons, or 1.3** hours before the prop stands at attention.

Jim's Garmin with XM Weather, indicated that Arlington, WA, (KAWO), North of Seattle, had a green flag (VFR weather). The green flag indicates current weather, and not the forecast. In his narrative, he did not indicate if he had checked the forecast for Arlington. Hoping to find a break in the clouds at his alternate, he flew through a pass in the Cascade Mountains, and **towards Arlington's green flag.** (Arlington is shown above as the red and white aircraft symbol. Ellensburg is indicated by the blue and white aircraft symbol).

Distance flown from Ellensburg to Arlington: 100 nm (584 total), burning another 5.4 gallons. Fuel remaining: **7.6 gallons**. Time flown this leg: 42 minutes (Total time aloft: 4.2 hrs.)

He now has about 45 minutes of fuel remaining, and seeing some mountains sticking above the clouds, he thought he would go towards them, to see if there would be a break in the clouds. That took him 20 minutes and burned another 4 gallons of fuel. **He now has about 3 gallons of fuel and less than 15 minutes to find a spot to land.**

At this point, Jim admitted that he was in deep trouble and he was able to contact Seattle Center controller Ken Greenwood. He told Ken that he was out of practice flying by instruments only. Greenwood and fellow air traffic controller Ryan Herrick did what they could to help.

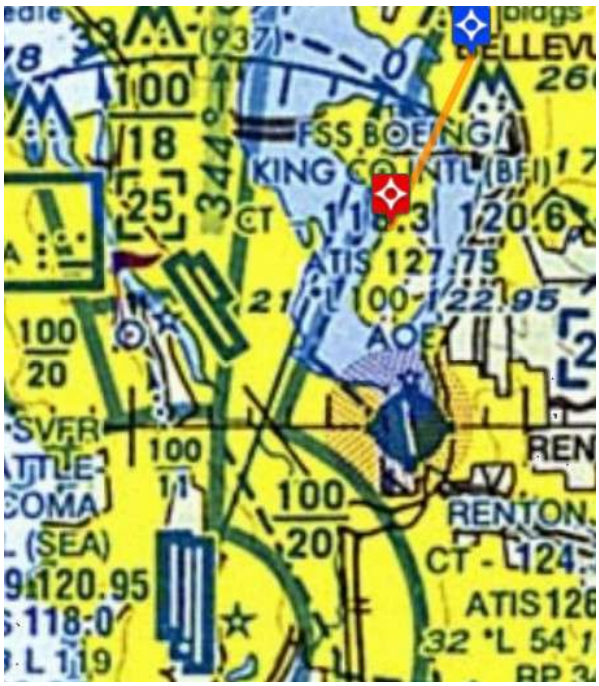
Jim requested vectors to Auburn (S50), south of Seattle and shown here by the red and while aircraft symbol. (That's a 50 nm flight and would, if flown use up 22 minutes of fuel – a little over four gallons).

Flying south at 7,000 feet, the engine stopped due to fuel starvation. Jim switched tanks and the engine started again. About 20 miles north of Auburn, the controllers cleared him to descend. He was rusty and had a difficult time holding a heading in the weather.

Frustrated, and feeling a sense of urgency, the team of controllers, which had grown to three at this point, took COMMAND of the entire situation and vectored him to the SEATAC airport (KSEA). Their thoughts were, that SEATAC is a bigger airport, has lots of runways and it's easier to see. While proceeding to SEATAC, and cleared to descend to 4,500 feet, the engine quit again. Jim Lawson's Mooney was out of fuel and suction.

He was in the weather, fearing for his life, armed with rusty instrument skills - and now he must maintain flight with a magnetic compass, turn coordinator and pitot static/instruments.

At 2,000 feet, Jim broke out of the clouds over Lake Washington and Mercer Island (the red and white waypoint symbol on the map).



He spotted the bright lights of Boeing Field (KBFI) on his right, and he wanted to glide there. Fortunately, the controllers talked him out of it, insisting that he look for Renton (KRNT) at "12 O'clock and 4 miles".

A mile and a half later, he spotted Renton, but noticed that the runway threshold was preceded by a blast fence that he'd need to clear. He already had his gear down, accelerating his descent, and felt that he was not long for this Earth.

As he raised the nose of the aircraft slightly, the small amount of fuel remaining in the tank found its way into the fuel line and the engine restarted – giving him the needed power to lift him over the blast fence for a safe arrival in Renton.

Lawson radioed back to the controllers, "You know

what? You just saved my life." "Anytime, sir," was the reply.

What can we learn?

Thirty years ago, when I asked my boss where he had learned to fly, he said, "I soloed in Show Low, Arizona in 1939, and I've been learning every since!" That philosophic quip has stuck with me, and I've tried to learn something from every flight. I also love to hear stories about other pilots, because their experiences are wonderful teaching tools. Had I been in Jim Lawson's situation, I don't know how I'd do, but I can tell you that the seats would need to be removed by a HAZMAT team for a good cleaning/replacement. We are all grateful that he survived this "puckering, near death experience". I also think Jim is a very brave man for sharing his story, so that we could learn from it. Telling the story could not have been an easy thing to do.

A Controller's Thoughts

One of the Air Traffic Controllers, reflecting on Jim's experience said, "If [Jim] had said [upon initial contact], 'I just made it over the Cascades and I've got about five minutes of gas, and I need to land now', we could have had him down sooner. Instead he was on the frequency 18 minutes, and we were hunting and pecking for a place to land him. It was a Q & A session."

The Pilot's Thoughts

Jim Lawson said, "I didn't want to get in trouble so I hesitated and delayed contact with ATC. I should have contacted 'em as soon as I couldn't get down at my alternate, and I didn't." Pilots should not be afraid to ask for ATC's help. They are not a police department, and their first priority is your safe return to Earth. When you are seeking their advice and help, don't assume that they know all about your situation or fuel status.

Parting Thoughts

#1.When something goes wrong, that's red flag number one. If another problem occurs, no matter how small, that could be the trigger that escalates matters into a full blown emergency, or worse.

#2. If you know when you took off, you can calculate your fuel burn and fuel remaining. Don't trust your gauges. Maintain situational awareness and set limits of how far you'll go in any quest. Don't allow yourself to be trapped in an almost impossible situation.

#3. FAR91.151 & 167 REQUIRES that if you are flying VFR, that you have enough fuel to fly to your destination + 30 minutes of reserve fuel. If you are flying IFR, that you have enough fuel to fly to your destination and an alternate (if required) + 45 minutes of reserve fuel. According to AOPA's Air Safety Institute, in an average week, three GA aircraft crash due to improper fuel management.

#4. If you are "into" your reserve fuel, it's already a bad situation! The FAR reserve requirements are woefully low. I don't like livin' on the edge, especially when it comes to aviation. My personal reserve requirements are at least **one hour of fuel.**

#5. A METAR reports the current weather and a TAF indicates the forecast. Don't depend on a METAR to determine if you can land at an airport in 30 minutes. Expect weather to change. Sometimes we can't depend on TAFs either, so be ready with an escape plan. If a "green" airport is surrounded by blue, red and purple airports, that's not a pretty picture.

#6. Most aircraft glide very well when clean and Mooneys are no exception. Don't extend the flaps or gear until the Landing Zone is assured.

Be vigilant for red flags when you fly. They will literally ***bury*** you. Jim Lawson survived the appearance of not one or two, but four red flags. You or I might not be so lucky.

Healthy Flying Thought – On a long cross country, fatigue and dehydration are a real concern. Many of us choose not to hydrate because of the (FBES) full bladder enroute syndrome. Consider drinking water and even eating something like a granola bar about ½ hour before landing.

Subject: Motion Induced Blindness This is a great illustration of what we were taught about scanning outside the cockpit when I went through training back in the '50s. We were told to scan the horizon for a short distance, stop momentarily, and repeat the process. I can remember being told why this was the most effective technique to locate other aircraft. It was emphasized repeatedly to not fix your gaze for more than a couple of seconds on any single object. The instructors, some of whom were WWII veterans with years of experience, instructed us to continually "keep our eyes moving and our head on a swivel" because this was the best way to survive, not only in combat, but from peacetime hazards (like a midair collision) as well.

Click on this link: http://www.msf-usa.org/motion.html

It will be an eye opener!

ATC Scenario – Who's Responsible

So you are on a flight with flight following. You may be talking to Center or Approach Control enroute. You come upon a Class D airspace and are going to penetrate that Class D airspace. Do you need to contact the Class D Tower? After all, you are already talking to ATC. Well it turns out, the answer is ambiguous. Surprised? Well this may help.

The FAR and the AIM point to pilot responsibility for communication with tower, the ATC Handbook says it is the controllers responsibility, BUT there is a note in the 7110 that says that pilots must abide by the FARs despite any procedure in the handbook.

First we'll take a look at the AIM. Remember the AIM is non-regulatory, but in general should be abided to. The AIM clearly states that it is the Pilot in Command (PIC) who is responsible for meeting communication requirements before entering Class B, C or D.

From the AIM: Section 2. Controlled Airspace

3-2-1. General

a. Controlled Airspace. A generic term that covers the different classification of airspace (Class?A, Class?B, Class C, Class D, and Class E airspace) and defined dimensions within which air traffic control service is provided to IFR flights and to VFR flights in accordance with the airspace classification. (See FIG 3-2-1.)

b. IFR Requirements. IFR operations in any class of controlled airspace requires that a pilot must file an IFR flight plan and receive an appropriate ATC clearance.

c. IFR Separation. Standard IFR separation is provided to all aircraft operating under IFR in controlled airspace.

d. VFR Requirements. It is the responsibility of the pilot to insure that ATC clearance or radio communication requirements are met prior to entry into Class B, Class C, or Class D airspace. The pilot retains this responsibility when receiving ATC radar advisories. (See 14 CFR Part 91.)

e. Traffic Advisories. Traffic advisories will be provided to all aircraft as the controller's work situation permits.

f. Safety Alerts. Safety Alerts are mandatory services and are provided to ALL aircraft. There are two types of Safety Alerts:

1. Terrain/Obstruction Alert. A Terrain/Obstruction Alert is issued when, in the controller's judgment, an aircraft's altitude places it in unsafe proximity to terrain and/or obstructions; and

2. Aircraft Conflict/Mode C Intruder Alert. An Aircraft Conflict/Mode C Intruder Alert is issued if the controller observes another aircraft which places it in an unsafe proximity. When feasible, the controller will offer the pilot an alternative course of action.

Now let's take a look at the prevailing FAR in the text box below. It indicates that it is also the PIC's responsibility to contact the tower and not necessarily the responsibility of Center or an Approach Control.

But looking at Section 7110.65 of the ATC Handbook indicates that the controller has responsibility to coordinate with the "approach control tower". So, at a minimum, it appears that both PIC and ATC have a shared responsibility.

Our conclusion: Be on the side of the AIM and FARs and take PIC responsibility for ensuring that you have met the FAR requirements for entering any airspace. If not sure, simply ask the controller before entering. Sometimes there are Letters of Agreement between

approach/center and a Class D. Other times there is not. In the end, the PIC will most likely be held to the FARs.

FAR 91.129 - Operations in Class D airspace.

(a) *General.* Unless otherwise authorized or required by the ATC facility having jurisdiction over the Class D airspace area, each person operating an aircraft in Class D airspace must comply with the applicable provisions of this section. In addition, each person must comply with §91.126 and §91.127. For the purpose of this section, the primary airport is the airport for which the Class D airspace area is designated. A satellite airport is any other airport within the Class D airspace area.

(c) *Communications.* Each person operating an aircraft in Class D airspace must meet the following two-way radio communications requirements:

(1) *Arrival or through flight*. Each person must establish two-way radio communications with the ATC facility (including foreign ATC in the case of foreign airspace designated in the United States) providing air traffic services prior to entering that airspace and thereafter maintain those communications while within that airspace.

7110.65 ATC Handbook:

2-1-16. SURFACE AREAS

a. Coordinate with the appropriate non-approach control tower on an individual aircraft basis before issuing a clearance which would require flight within a surface area for which the tower has responsibility unless otherwise specified in a letter of agreement.

b. Coordinate with the appropriate control tower for transit authorization when you are providing radar traffic advisory service to an aircraft that will enter another facility's airspace.

NOTE- Pilots are required to abide by CFRs or other applicable regulations regardless of the application of any procedure or minima in this order.

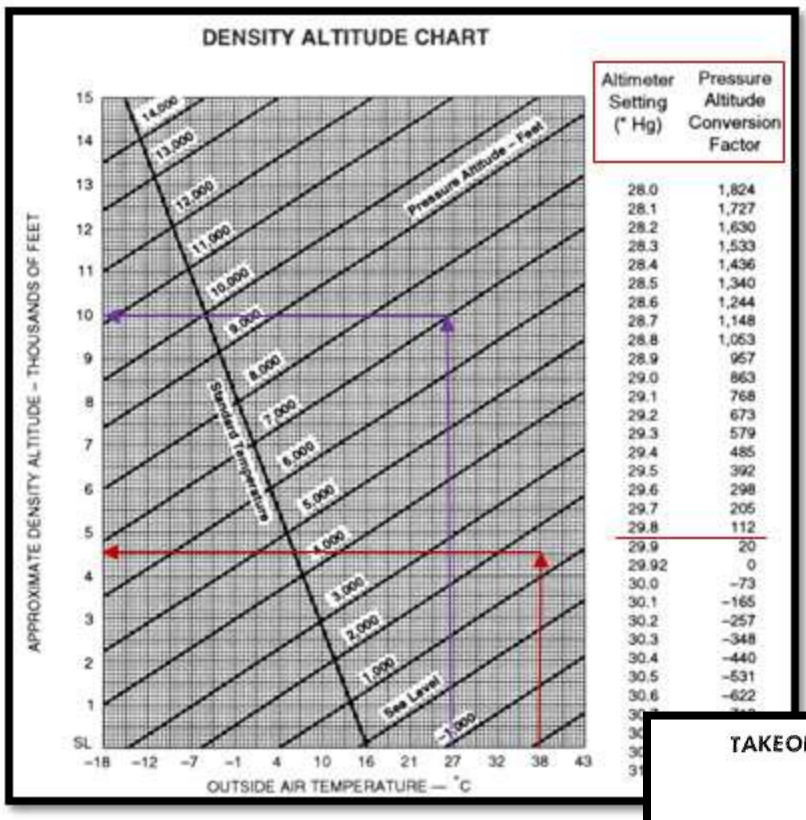
Updated FAA Policy on Pilot Errors -- The FAA is encouraging controllers to report pilot errors more aggressively. This is a significant change. While the change will most likely lead to safer skies in the long run, pilots need to be aware that serious errors they make that might have gone unreported in the past will almost certainly be reported now, possibly leading to certificate action.

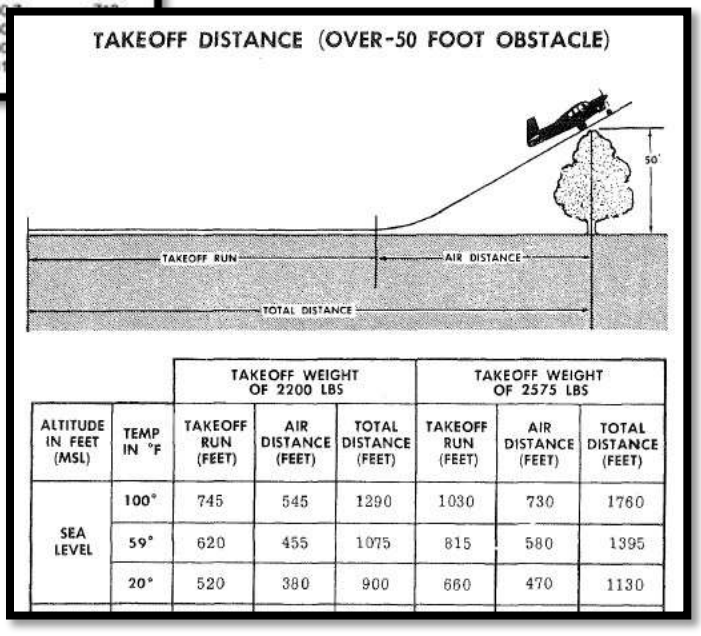
Your response: Inevitably, pilots make a mistake. If you do, make sure you complete an ASRS form which still protects you from your mistake. You have 10 days to report your incident. Click Here for all the official information.

Leaning **for Takeoff, High Density Altitude**

By Jim Price

Density altitude is "the altitude at which the airplane thinks it is flying." It can be computed with a calculator, flight computer or graph. Graphs, like those shown here are readily available on the web. To use the graph, you will need the Altimeter setting. With that, you can find the Pressure Altitude (PA) Conversion Factor. For instance, an altimeter setting of 29.80 = a conversion factor of 112 feet. Adding the factor to the field elevation yields the **PRESSURE ALTITUDE**. If the field elevation is 1,300', adding 112' = **1,412' PA**. If the Outside Air Temp (OAT) is 100°F (38°C), the Density Altitude (DA) jumps to 4,500 feet. So, a hot summer takeoff in the Desert Southwest's lower elevations, can present a fairly high DA. Try an 80°F (27°C) takeoff at Flagstaff, AZ, field elevation: 7,014'. On a standard 29.92 day, (zero PA conversion), your Mooney will perform as though it's at 10,000 feet.





ALTITUDE IN FEET (MSL)	TEMP IN °F	TAKEOFF WEIGHT OF 2200 LBS: TAKEOFF RUN (FEET)	AIR DISTANCE (FEET)	TOTAL DISTANCE (FEET)	TAKEOFF WEIGHT OF 2575 LBS: TAKEOFF RUN (FEET)	AIR DISTANCE (FEET)	TOTAL DISTANCE (FEET)
SEA LEVEL	100°	745	545	1290	1030	730	1760
	59°	620	455	1075	815	580	1395
	20°	520	380	900	660	470	1130

M20C Density Altitude & Takeoff Distance

AOPA (and I), recommend that that for ALL takeoffs, you use the 50' obstacle chart for an extra pad of safety.

Adjusting for Density Altitudes higher than Sea Level

- Add 10% of the standard Sea Level takeoff distance for each 1,000 feet Density Altitude up to 8,000 ft
- Add 15% of the standard Sea Level takeoff distance for each additional 1,000 feet Density Altitude above 8,000 feet.

Unfortunately, when Mooney engineered the POH's Takeoff Distance Charts, they didn't stray far from Kerrville, (elevation 1,617'), considering their lower **Density Altitude** possibilities of Sea Level, 2,500 and 5,000 feet. If we takeoff from Flagstaff's 8,800 foot runway on an 80° day, with a density altitude of 10,000', we'll need to use the 10% and 15% adjustment to find the *truth*. Here's the math for a M20C weighing 2,576 pounds at Sea Level:

Sea Level takeoff distance with a 50 foot obstacle: **1,760'**
10% of 1760' = 176' X 8 = 1,408' (correction to 8,000')
15% of 1760' = 264' X 2 = 528' (correction from 8,000' to 10,000')
1,936' = increased distance for 10,000' Density Alt.)
+ 1,760' (SL takeoff distance)
3,696' (Corrected takeoff distance)

Think of how your Mooney climbs at 10,000 feet MSL, and you'll understand why it won't climb like a banshee!

Why Lean?

At high field elevations or high density altitudes, you'll need all the power that you can get from your engine. A rich mixture setting can rob you of precious takeoff power – as much as 200 RPM.

Leaning a Lycoming Powered Mooney for the Taxi and the Run-Up – All Density Altitudes

- Lycoming recommends aggressive leaning during taxi because full rich gunks up the plugs. Leaning avoids plug fouling and unsuccessful magneto checks.
- At the run-up area, enrich the mixture slightly and throttle to 1700 RPM for the run-up.
- Adjust the mixture slowly to obtain the highest RPM possible and readjust RPM to 1700 RPM
- Perform the run-up.

Leaning a Lycoming Powered Mooney for the Takeoff

You're not done yet. The leaning that you did for the run-up may not be right for the takeoff. For safety sake, do a static takeoff. Check Prop full increase, hold the brakes and add full power. Lean the mixture so as to reach 2700 RPM (maximum takeoff power). NOTE: At the first sign of engine roughness, enrich the mixture until the engine runs smoothly.
When you release the brakes, confident that you have takeoff power, you can concentrate on your flying skills. Rotate gracefully and accelerate at a shallow angle of attack. This prevents stalling, and allows your Mooney to accelerate as quickly as possible – to get it flying. At a safe airspeed, (approaching best climb speed), retract the gear and flaps. After climbing 400 to 1,000-feet AGL, fine tune the mixture.
Understanding how your aircraft and engine perform at high temps and density altitudes can prevent surprises and extreme pucker factors. Don't get yourself into a dangerous situation, like the one recorded here:
http://www.youtube.com/watch?v=ibsJLNj9PXk

iPhone/iPad App Review – AOPA FlyQ

This month we'll review an iPhone (and iPad compatible) app that provides almost everything you will need to plan a flight. And the best thing is it is FREE. It's an app from AOPA called FlyQ. FlyQ is the result of a partnership between AOPA and Seattle Avionics. This is the same app as Voyager FreeFlight.

The app is a simple and straightforward program with extensive airport information, weather maps, and pre-flight planning. It is not an inflight moving map app at all. When you select airports, you have access to all of the information that AOPA provides on an airport, essentially an iPhone rendition of the A/FD and all types of supplemental information including FBOs, fuel, hotels, restaurants, rental cars, and attractions.

Move over to Weather and you'll get NexRad, Satellite, METARs, TAFs, Icing Levels, Winds and more. There's even a seven day forecast. Small additional features let you type in a city name or even a zipcode to get weather.

If you want to do a quick flightplan, you can do a point-to-point plan in about 15 seconds. You'll have choices to select from including Victor Airway navigation, Jet Airways or GPS direct. There's even an option to let FlyQ select the optimal altitude for winds aloft.

Like most apps, you get to setup all of your Pilot information and Aircraft information which will be used everytime you do pre-flight planning or file your flight plan.

Lastly, if you want to file via DUAT, just click on File my Plan and it'll get done. Not a bad app for FREE.