The Mooney Flyer

The Official Online Magazine for the Mooney Community

www.TheMooneyFlyer.com

September 2015

Features

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If Only They Had Waited a Few Hours
Mooney pilots must be patient and flexible. In this case, waiting might have made all the difference

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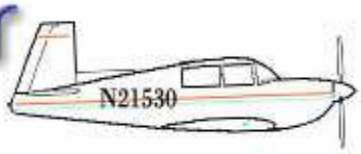
From the Editor

Phil Corman



I was speaking with a guy from the Bonanza Society, and learned that we have a lot in common with them. Namely, fantastic airplanes with similar exceptional characteristics (Editor's Note: I did not tell him Mooneys are actually far superior). After some discussion, he noted that the Mooney community is both "fantatic about their Mooneys", but also "fractionated". I agreed with his perception that we are fanatical about our Mooneys and for good reason.

But I dug in a little about the "fractionated" comment. He noted that there are at least 4 mailing lists and one forum, MooneySpace. I told him that this is America, land of competition and choices. He agreed, but still thought it would better serve the community to unify around one source of great information such as the BeechTalk forum. He even indicated that there are a lot of Mooney owners that lurk or participate on BeechTalk. I told him that I was one of them, especially their Panel Forum.

He then talked about friction between different Mooney groups, similar to the sniping that sometimes happens on the AOPA board, Purple Board, and Pilots of America boards. We talked for awhile about this. We concluded that some organizations look at the world as a "Zero Sum" game, meaning that others must lose in order for them to gain. At The Mooney Flyer, we simply do NOT subscribe to that notion. All of the various Mooney efforts and organizations should be working together. It is not a Zero Sum game! The more groups do for the Mooney Community, the better we all are for it. Groups should cooperate. We can learn from each other. There are several fly-in groups, including, but not limited to, the Florida Lunch Group, the Southeast Mooney Group, the Vintage Mooney Group, the Mooney Ambassadors, and others. None of these groups are competing with each other, and can benefit by sharing fly-in ideas that make fly-ins more fun and/or easier to arrange. The next level is that we report on and support Associations such as **AMPA** in Australia and **EMPOA** in Europe. Both of these associations are exceptional in the information and fly-ins that they provide for their members. Then you have the Mooney Summits by Dr Dubin and Mike Elliott, the Mooney Flyer's Weekend Event, and MAPA's annual Event. These also do NOT compete with each other and could benefit by sharing ideas of things that work best for attendees.

If we know about events, the Mooney Flyer online magazine reports on all things Mooney. Our website, does the same thing. We want to report on all activities and organizations that are doing great things for Mooney Owners. We are proud of this and hope you agree.

Dinner & Wine at EOS Winery

Last month's poll asked, **"Did you Attend AirVenture and related events there?"**

A little more than 1/3 of our respondents attended AirVenture 2015. Most of those attending visited the Mooney Booth which was very prominent. About half of our readers attended the Mooney Panel Discussion. Thank you. Phil Corman represented your Mooney Flyer magazine.

Next month's poll: "The Mooney Flyer wants your Feedback"

CLICK HERE to vote.

Appraise Your Mooney's Value

Don't forget about our cool new **Appraise your Mooney's Value** calculator 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.

M20C M20E M20G M20F M20J

In last month's magazine, I thought that the article by Cliff Biggs was particularly good in that it gave specific examples of things that should be checked on older Mooneys. If you are lucky enough to have a good Mooney shop maintain your aircraft, then you can expect them to spot such faults and bring them to your attention. But not every Mooney has a maintainer that is familiar with the type and/or diligent about checking for less obvious potential problems. So, I'd be keen to see more from Cliff and/or Tom Rouch on that topic. What questions should we, as owners, be asking our maintainers about what has (and has not) been checked during the annual?

John H

Dear John, Mooney publishes a 100 Hour Inspection checklist. This has all the things that should be looked at. In addition, other components like your ELT have owners manuals that should be reference for required maintenance, such as when to change ELT batteries, etc. Get the 100 Hour Checklist HERE

I just discovered that if you fly into the US from Canada you can overfly to any airport to clear customs, file a Eapis and make a reservation, anywhere you want to land as long as customs is based there. However, from the south you MUST land at the nearest airport after crossing the US border.
Lloyd B

RE: When the Time Comes – I thought Bruce Jaegar's article was quite informative. The point he made that struck home was to start thinking of your resale value shortly after buyng it. Fly it correctly… Maintain it properly… etc. And as you start to think about selling… think about what you would be looking for in your airplane as a prospective buyer. If you have the time, however, I have enjoyed selling my old airplanes as I have been lucky enough to always be getting a newer/better plane. I think Bruce's point about an agent is good if you don't have the time.
George B

RE: Multitasking – Geoff Lee's article brought up a couple of key topics for me. In reality, we don't really multitask. What we call multitasking really is the ability to switch quickly, perhaps in sequence, with a focus on multiple things. It feels as if we are doing multiple things at once, and perhaps we are if one task is visual and another audio. The second key point is that our "natural instinct" as to what action we should take in an adrenaline-inducing situation may not be the correct action. He talks about the scenario of seeing only terrain out of the windscreen and the natural desire to pull up quickly. As Mr Lee states, that is not the correct response. I call the correct response a "Conditioned Response". By that I mean that we learn the correct response before we find ourselves in a situation requiring immediate action. Another conditioned response is on an engine failure on departure. The conditioned response must be to immediately and aggressively push the nose down. No time to think and no time to do it slowly. Great article.. Thanks Geoff
Bob H

To Go-Around or Not to Go-Around

Generally, most Mooney pilots would agree that a go-around is always the right choice. And most of the time, that's probably true. If there is a deer on the runway, a go-around is warranted. If you are high and/or have overshot the base to final turn, a go-around is warranted. If there is another plane on the runway, then go-around. And finally, if you cannot hold your Mooney on the centerline in a crosswind, a go-around is warranted. A go-around is almost always warranted while you are still on final, or at least, still airborne, and a runway issue or approach condition arises. Now, let's cover situations where a go-around might not be the best choice, or at least, the only choice. For instance, when you have already touched terra firma with your gear.

Situation #1: You've Landed Long and You're Running Out of Runway

This has happened to all of us at some stage in our flying lives. Is a Go-Around the best, or only, decision? I don't think so. You've done Touch-n-Go practices, so why is this different? Well, a practiced touch-n-go is different for at least one reason. You knew you were going to do the touch-n-go well in advance and you have plenty of runway to do it. If you are confronted with less runway left to stop, you are in a stressful situation and you're not thinking touch-n-go, necessarily. Now you have to add power, retract some flaps, deal with that nose up trim, and retract the gear. All that takes time. Do you know how much runway you need to rotate or how much horizontal you need to clear the obstructions at the end of the runway? You are probably making a gut decision based on your experience. But you probably don't know with certainty regarding wind, temperature, density altitude, current weight, etc. Here's the decision as I see it. You can continue to apply brakes, thereby reducing your speed and reducing the impact force. Or you can add power, adjust all your Mooney controls as mentioned above, and hope for the best.

Situation #2: You're being blown off the Runway by the Crosswind

You've managed to land your Mooney in a sporting crosswind, but as you lower the nose, she begins to veer off the runway. Now what? Is a go-around the best choice? Remember that your Mooney is still configured for a landing with flaps, power, trim, etc. You are in a situation where you have lost longitudinal control. Adding power will add yawing effects to your control, and initiate a very strong desire to rotate ASAP to

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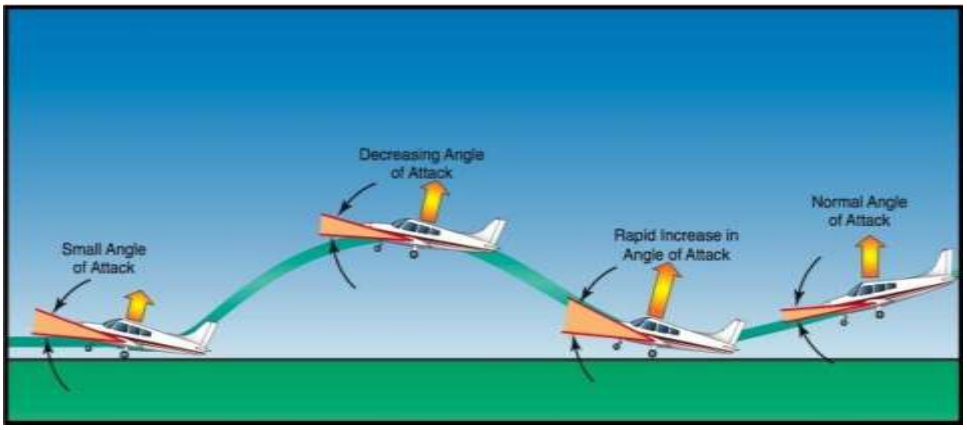
avoid those off the runway obstructions such as grass, mud, etc. Also, remember that you were either in a slip or kicking out of a crab as you added power and started to climb. This is certainly conducive to stalling and nosing in rather than just an embarrassing prop plant at worst. There is no right or wrong answer, but it is worth thinking about this situation NOW, and having Plan B, ready to kick in. Can you make all the adjustments to your complex and/or high performance Mooney while veering off a runway at minimum, or a less than controllable speed?

Situation #3: A Bounced Landing



Mooneys are clearly less forgiving when it comes to hard landings, or a landing not made at precisely the correct airspeed considering the atmospheric conditions and the weight of the plane at touchdown. Incorrect airspeed or a vertical descent that is only slightly too high, usually results in a bounce. If you have enough runway, then adding power while maintaining proper nose up attitude, will usually result in a proper landing on that second touchdown. But what if you have done the proverbial two bounces. The old adage is that a prop strike is almost a certainty on the third bounce. So what should you do? I think that after the second bounce, you should consider a go-around. Why? Well, my reasoning is simple. You have made a mistake twice on this landing. A good landing is usually preceded by a good stable approach to flare and touchdown. That hasn't happened here. So, given enough runway, a go-around is warranted.

There are several Mooney go-around accidents in the NTSB accident database that occurred because the pilot did not maintain aircraft control during a go-around. It seems that they suddenly forgot how to fly. Torque seems to catch them by surprise. What? Why am I turning left? Quicker that you can yell, "Right rudder", the aircraft has been turned over the insurance company.

Conclusions

If something arises during your approach to land, a go-around is almost always warranted. These include crosswinds, objects on the runway, a non-stabilized approach, incorrect sink rates, or just pilot errors such as overshooting the turn to final, etc. After your Mooney has touched down, should you go-around? That decision takes judgement and hopefully some forethought. The "less bad" decision might be to take your lumps while on the ground and at a slow airspeed, as opposed to cleaning up the airplane while adding power, from a position that already is not optimal, (i.e., somewhat out of control). And it doesn't matter how many touch-n-go's you've made in a controlled environment. These will be done in highly stressful situations, after your Mooney has bounced, or veered off the runway, or is mostly out of runway. Definitely not your normal touch-n-go around.

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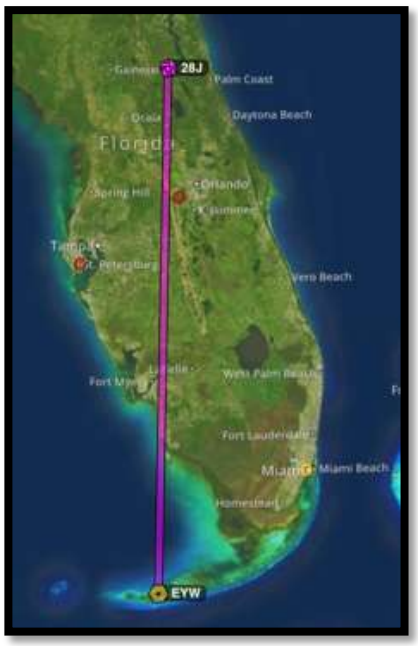
If Only They Had Waited a Few Hours

It is February, 2015 and for the past two years, Michael Buxton has been staying current in his friend's 1975 M20F, based in Suffolk Executive (SFQ), Virginia. In fact, just a few days ago, Jim Beauchamp, the owner of N66BB, was the safety pilot while Buxton flew several "perfect" instrument approaches at Norfolk, VA (ORF). They also checked the instruments and radio, which had been recently updated and re-calibrated. See, 10 On Your Side, WAVY, Hampton Roads, VA)

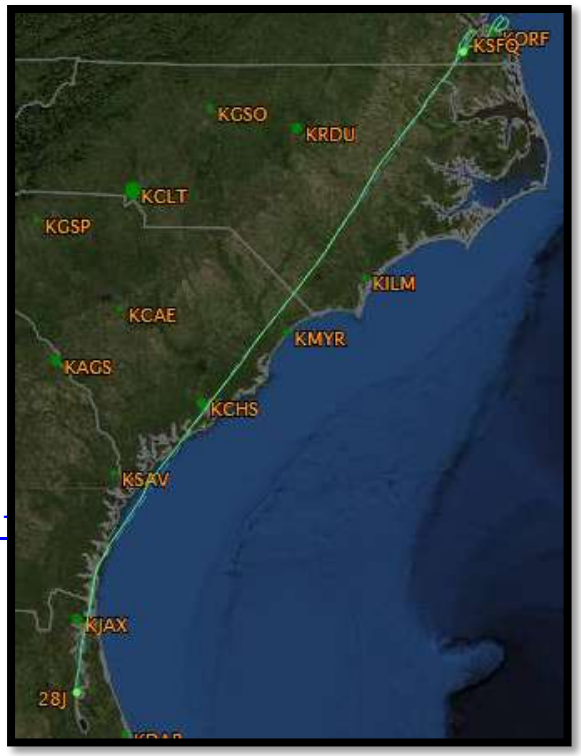
A few days later, on Wednesday, February 25, Buxton and two friends from Buffalo, departed SFQ in 66BB, bound for Key West International Airport (EYW), Key West, Florida. There, they would enjoy a week of tropical relaxation aboard Buxton's sailboat, "Bigger Dream".



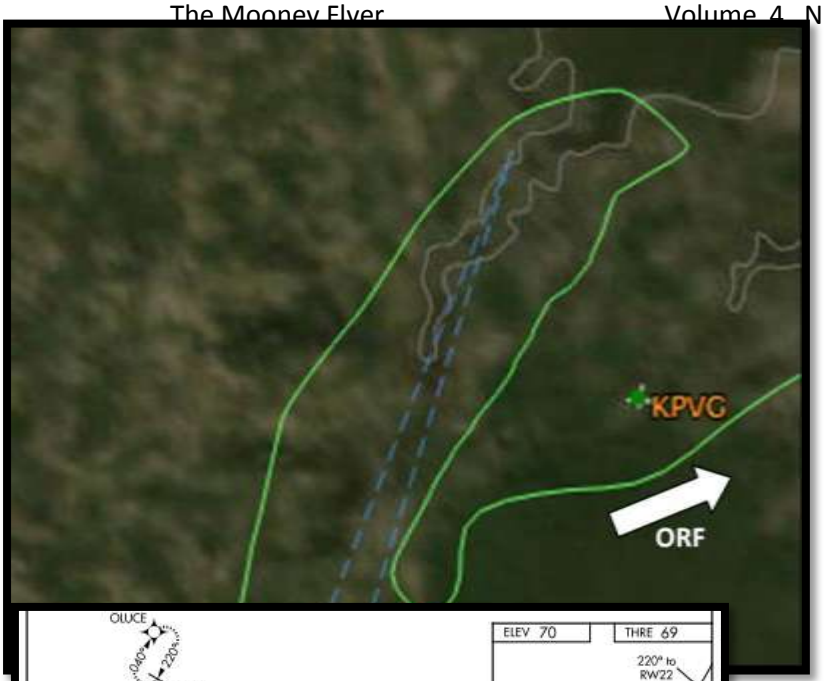
On Monday, March 2nd, the night before their return flight to Virginia, Buxton filed two IFR flight plans with Lockheed Martin Flight Service. The first flight plan requested a GPS direct routing from Key West to Palatka Municipal Airport, FL (28J).

The First Leg

It was late Tuesday evening, at 8:30 pm, when Buxton and his friends departed Key West on March 3rd. His flight plan would take him over 80 nm of water and then over a sizeable part of the Florida Everglades. Many single engine pilots would avoid these situations in the nighttime hours.



At 10:40 pm, after a 2 hour 10 minute flight, the trio arrived at Palatka Muni (28J) for fuel; 31 gallons of 100LL. They departed at three minutes to midnight, for the 3 ½ hour flight to Suffolk. This IFR flight plan requested GPS direct routing from Palatka Muni to the Brunswick, Georgia VOR (SSI), then GPS direct to Suffolk (SFQ). Buxton declared that he had 5 hours of fuel on board.



The Second Leg

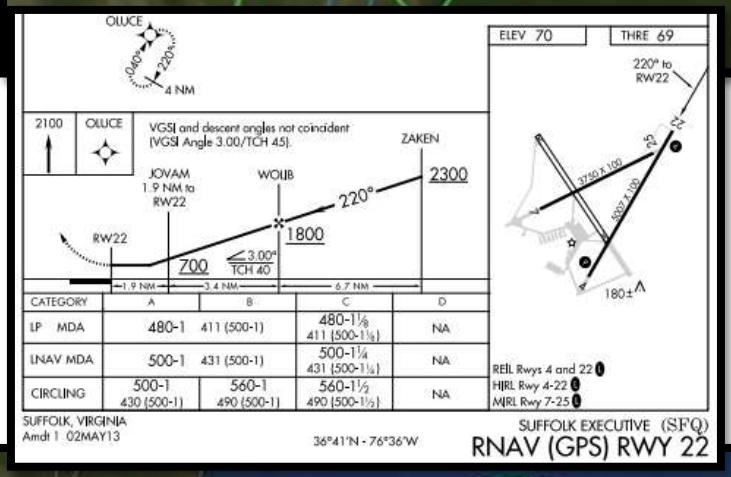
We are not sure if Buxton updated the weather while at 28J, or if he planned for an alternate airport. Enroute to Suffolk, the Mooney passed many VFR fields in Florida, Georgia and South Carolina. But, when Buxton reached North Carolina, much of the coast was blanketed with fog, drizzle, low ceilings, and gusty winds. As they neared Suffolk, suitable alternates within their fuel range were slim to none. They were in an area where all the airports were IFR to Low IFR. The temperature/dew point spread at Suffolk was a pathetic "one".

The SFQ GPS Approach

The Suffolk AWOS-3 reported conditions below approach minimums. Nevertheless, Part 91 allows the pilot to take a look, and that's what he did.

Buxton was cleared to execute the RNAV (GPS) RWY 22 approach at 3:07 am. Sure enough, when he arrived at the Minimum Descent Altitude (MDA), he was still in the "soup" and unable to see the runway. He advised ATC that he was executing a missed approach and that he would like to divert to Norfolk (ORF).

The controller provided radar vectors to Norfolk, and 30 minutes after he cleared for the GPS approach at SFQ, he was cleared for the Norfolk ILS RWY 23. It's now 3:37 am.



The 1st Norfolk ILS - Turbulence

Norfolk weather was reported as:
Winds 230/20 G 27, 2 1/2 statute miles visibility in mist, overcast at 200 feet, temp 8 C, dew point 7 C, and altimeter 29.92.

During the ILS approach, ATC gave Buxton several altitude and course corrections, and at about 3:49 am, ATC canceled the approach clearance. Buxton then advised ATC that he would like to try the ILS approach again and ATC issued vectors for a second try.

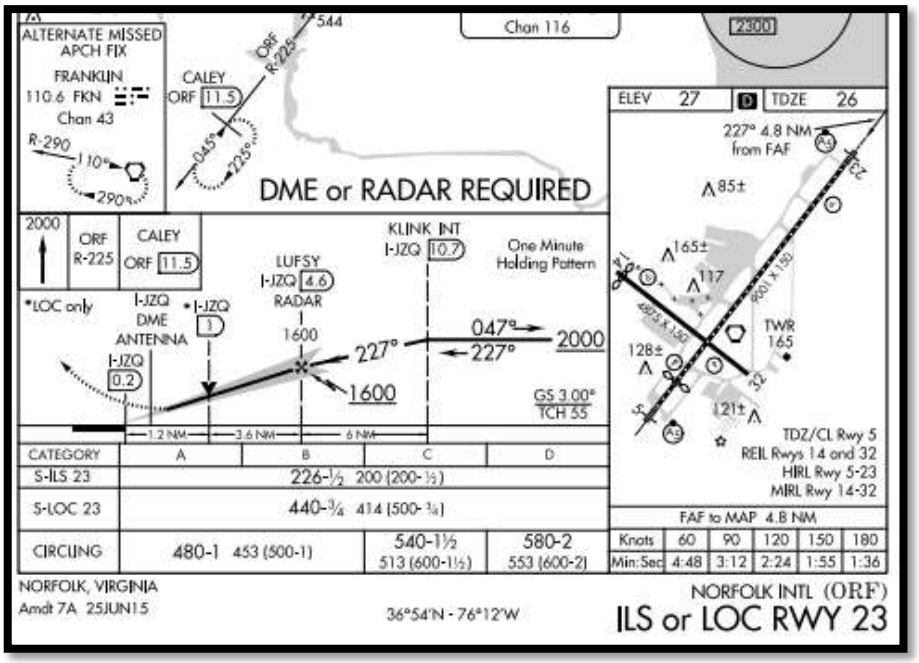
ATC asked him if he was experiencing any equipment problems and Buxton stated, *"It's literally a washing machine as soon as we go through the cloud deck, the cloud deck's at 1,200 feet, before that everything's very easy, but once we get to 1,200 feet, it's a washing machine."*
At 0354, he advised ATC, *"Six six bravo bravo is actually experiencing moderate turbulence, there are things floating around the cabin."*

The 2nd Norfolk ILS – Turbulence & Precession

About one minute later, ATC cleared Buxton for his second ILS approach to runway 23 at ORF. It has been an hour since he was first cleared for the GPS approach at Norfolk. It was about 4:00 am – 7 ½ hours since they departed Key West and Buxton was low on fuel, energy and options. He advised ATC, *"We're having a lot of precession with our gyros, I don't know if the turbulence disrupted it, if at all possible radar vectors would be appreciated on the glide slope, it's a very, very wild ride."*
When asked to clarify if he was requesting a no-gyro approach from the controller, Buxton said that the instrument just needed to be periodically re-aligned during the descent and that some radar feedback would be adequate.

A Wicked Headwind

Just prior to establishing the airplane on the final approach course, Buxton advised ATC that the airplane's indicated airspeed was 105 knots, while the GPS ground speed was just 32 knots.
At 4:03 am, while inbound to the final approach fix, ATC again offered Buxton standard-rate-turn, no-gyro radar vectors. He accepted the offer and advised, *"We're having a real problem with precession."* Two minutes later, he advised ATC that they now had an estimated 30 minutes of fuel on board.
They were now 10 miles northeast of the airport, over Chesapeake Bay, and the controller vectored the Mooney inbound for Buxton's second ILS.



As the airplane proceeded along the approach path, the controller advised Buxton that the weather was *"200 feet overcast".* At 4:13 am, the airplane was about 0.7 nautical miles north of the runway 23 threshold at a reported altitude of 200 feet and on a ground track that was heading toward the runway threshold. When the aircraft was less than a half-mile final from the threshold, Buxton advised the controller that he had the airport in sight and ATC cleared him to land. This would be the last time that the pilot of N66BB would respond to the controller.

ATC lost contact with Buxton when he was northwest of the field.

Shortly after 4:30 am, Fire Rescue and the US Coast Guard launched a search. Crews reported that at times, they only had about 25 yards of visibility.

The aircraft and three bodies were found in the woods of the Norfolk Botanical Garden, about 2,300 feet northwest of the threshold of runway 23. The landing gear was down and the flaps were up.

The left fuel tank was found ruptured with no fuel remaining. A trace amount of fuel remained in the right fuel tank.

If they had five hours of fuel on board when they departed Palatka, FL (28J) at midnight, they should have had at least seven gallons remaining in the tanks at 4:13 am. That would have allowed 45 more minutes of flight.

Options

This pilot was faced with just two options:

- Break out of the clouds and land in Norfolk.
  - This was an almost impossible ILS approach, considering the obscene winds, extreme turbulence and precessing gyros. It would challenge any professional pilot.
- If the fuel was exhausted, he could attempt a night, off airport landing in the soup.
  - Holy smokes! Those landings are demanding, even in broad daylight.

How Could They have Survived the Trip?

Just 4 ½ hours after the accident, Norfolk's visibility was well above minimums. By noon, the sun was shining and the winds and turbulence had decreased considerably.

- They could have spent the night somewhere along the way.
  - With an early morning start from Key West the next day, they would have arrived in Suffolk after the fog had lifted.
- They could have refueled a second time at the last VFR airport along the way.
  - This would have given them much more fuel and a chance to either fly to a good alternate or fly back to one of the VFR airports that they had overflown.

Shoulder Straps

Shoulder harnesses were not required in 1975 when the M20F was built, so this Mooney was fitted with lap belts. Could shoulder straps have saved them? We'll never know. If you don't have shoulder harnesses, I encourage you to make their installation a priority in your life! They are only $300 per seat; $400 if you choose inertial reel harnesses. See Alpha Aviation's web site.

Please Remember …

The required night and IFR Minimum Fuel requirements are absolute minimums – 45 minutes beyond a very good alternate. Never be satisfied with the minimum. More is better!

If you don't have an on board weather receiver, such as SiriusXM Satellite Weather or ADS-B "In", get it! Continually update the weather along the route and make risk assessments based on weather, yourself and the airplane.

Understand the risks of pushing the limits of:

- The weather
- Your aircraft
- Yourself

Don't take risks. The office, clients, friends and family can wait upon your arrival for a few hours or even a few days.

Fly Safe, *Jim*

Dr Michael Buxton was a Virginia Beach Child Psychologist

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9 of the Craziest Airports in the World

1

Gisborne Airport, New Zealand (NZGS) 15’ MSL

This North Island airport is one of the few in the world that has an active railway line running through its runway. Fortunately, it is a controlled field (during the day).

YouTube Train/Airport Fast Forward to 2:39

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2 Juancho E. Yrausquin Airport, Saba Island (TNCS) 138’ MSL

At only 400 m in length (1,312 feet), this Caribbean island has the shortest commercial air strip on the planet.
Although the airport is closed to jet traffic, regional airline propeller aircraft are able to land there if they have a waiver from The Netherlands Antilles' Civil Aviation Authority. The most common aircraft to land there are the Twin Otter and BN-2 Islander.
The only airline currently serving Yrausquin Airport is locally owned Winair, which operates daily flights to Saint Maarten aboard a de Havilland Canada DHC-6 Twin Otter. The largest airplane ever to manage flights to and from Saba is the de Havilland Dash 7. Average flights to Saint Maarten last no longer than a quarter of an hour.

YouTube Saba Island

3 Courchevel Altiport, France (LFLJ) 6,583 MSL

This airfield has 1,762 feet (537 m) and a gradient of 18.6%. It’s high in the French Alps and is a convenient yet treacherous drop-off point for wealthy skiers at the chi-chi Courchevel slopes.
In fact, there are ski runs not far from this mountaintop runway. Frequent fog, snow, ice and low clouds make it even more extreme. There are no go around procedures, instrument approaches or runway lighting.

YouTube M20J landing at Courchevel

YouTube Baron landing at Courchevel

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Don Mueang Airport, Bangkok, Thailand (VTBD) 9’ MSL

Or should we say “Fore”?
There aren’t many airports in the world that have an 18 hole golf course right amongst the runways.
Commercial flights began in 1924, making it one of the world's oldest commercial airports. Don Mueang Airport, (pronounced Don Mong), closed in 2006 following the opening of Bangkok's new Suvarnabhumi Airport, before reopening on 24 March 2007 after renovations. Since the opening of the new airport, it has become a regional commuter flight hub and the *de facto* low-cost airline hub.

Tenzing-Hillary Airport, Nepal (VNLK) 9,334’ MSL

In January 2008 the airport serving **Lukla, Nepal** was renamed in honor of Sir Edmund Hillary and Sherpa Tenzing Norgay, the first people to reach the summit of Mount Everest and also to mark their efforts in the airport’s construction.
The airport is popular because Lukla is the place where most people start the climb to Mount Everest Base Camp. There are daily flights between Lukla and Kathmandu during daylight hours in good weather. Although the flying distance is short, rain commonly occurs in Lukla while the sun is shining brightly in Kathmandu. High winds, cloud cover, and changing visibility often mean flights can be delayed or the airport closed.

It has a short runway with a 9,334 feet (2900 meter) drop off the edge. A 2010 program titled *Most Extreme Airports*, broadcast on The History Channel, rated Tenzing-Hillary as the most dangerous airport in the world.
There are no go-arounds possible and no instrument landing procedures.

YouTube Most Dangerous Airport!

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6 *Barra International Airport, Scotland (EGPR) 4' MSL*

This is a short-runway airport (or STOLport) situated in the wide shallow bay of Traigh Mhòr at the north tip of the island of Barra in the Outer Hebrides, Scotland.
The airport is unique, being the only one in the world where scheduled flights use a beach as the runway.[3] The airport is operated by Highlands and Islands Airports Limited, which owns most of the regional airports in mainland Scotland and the outlying islands. Barra Airport opened in 1936.

The beach is set out with three runways in a triangle, marked by permanent wooden poles at their ends, in directions 07/25, 11/29, 15/33. This almost always allows the Twin Otters that serve the airport to land into the wind. At high tide these runways are under the sea: flight times vary with the tide. Emergency flights occasionally operate at night from the airport, with vehicle lights used to illuminate the runway and reflective strips laid on to the beach.

7 Gibraltar International Airport (LXGB) 12' MSL

Winston Churchill Avenue, a major thoroughfare, intersects the airport runway in Gibraltar. This airport serves the British overseas territory of Gibraltar. The runway is owned by the Ministry of Defence for use by theRoyal Air Force as RAF Gibraltar. Civilian operators use the civilian-operated terminal. This is one red light you don't want to run. Winston Churchill Avenue, has to be closed every time a plane lands or departs.

Gustaf III Airport, Saint-Barthélemy (TFFJ) 48’ MSL

This is a public use airport located in the village of St. Jean on the Caribbean island of Saint Barthélemy. The runway is so tiny, only planes with a maximum of 20 people can land here. That helps keep St. Barts an exclusive upscale Caribbean haven for the rich and famous. The most common aircraft serving St Barts is the Twin Otter. The Canadian-built de Havilland Dash 7 is the largest aircraft ever allowed to operate here.

YouTube St Barts Landing

Princess Juliana International Airport, Saint Maarten (TNCM) 14’ MSL

This airport is on the Dutch side of Saint Martin. The approach is right over Maho Beach. It is known for its extremely low-altitude approaches, and tourists flock here to experience the rush of the planes as they fly over Maho beach (shown at left). Many crazy folks line up on the fence behind the departing aircraft so they can experience the jet blast in their faces. Definitely one of the craziest airport runways you’ve got to see to believe.

YouTube Beach Landing

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Best Time EVER

by Tim Lundquist

Thoughts and dreams finally lead to the decision to reward yourself with that one special airplane. Be careful, as emotion can take over. This needs to be a time to sit back and work on a strategy, as do-over will not be an option.

With more than five years specializing in Mooneys, I have learned that whether buying or selling, the most important thing is a long term satisfied customer. The following points are intended to help make the transition into that first or upgraded Mooney a pleasing experience. When you are ready, I am confident there is a professional Mooney specialist that can help.

What comes first?

- Choosing the right model for your mission.
    1. *Turbocharged or normally aspirated. This depends on multiple factors*
    2. *GPS, autopilot and safety equipment is expensive to add*
    3. *Deicing - A/C?*
    4. *Range, Endurance, and Useful load needs to be enough*
    5. *Efficiency may have greater importance than the highest speed.*

Is there an option within a preferred price range?

- *Develop a spreadsheet, conservatively estimating the acquisition, all fixed and operational costs*
- *An earlier model year may be an option*
- *It could be that a properly repaired damage history airplane is more easily within reach*
- *Creative Financing terms can make it work*

Is searching on your own the best choice?

- *Could be, if you are a Mooney mechanic with sales experience. If not, investing in someone solely interested in protecting your interests makes sense.*
- *Finding a new home or realizing tax advantages for your trade may not be easy.*
- *An in-depth market comparison will provide important pricing information.*
- *There is a greater effect with a third party negotiator.*
- *Keep in mind, many hard to find airplanes are sold through a network of sales agents, never requiring a written ad.*
- *A comprehensive logbook review and FAA records search could save insurmountable grief and expense.*
- *Selecting the right technician to evaluate the chosen aircraft is critical. Someone interested in your future business is going to do it right. Consider the service bulletins, corrosion, rusting, fuel tanks, worn landing gear parts, engine, exhaust and accessories, avionics, autopilot and cosmetics. It would be comforting to have some help.*

Time for delivery

- *Completing an acceptance flight*
- *Coordinating delivery and training*
- *Transfer a clear title and complete other related paperwork*

1. Select a model to suit your mission and budget.
2. Complete a Market Comparison.
3. Ask probing questions of a seller advising need for proof.
4. Be prepared to move on when the seller resists a pre-purchase inspection, is inflexible with correcting discrepancies, or unwilling to negotiate.
5. Give yourself the opportunity for a thorough acceptance flight.

A sales agent will be there every step of the way.

Purchasing a Mooney should be fun, but too often turns into a frustrating challenge. With a strategy, there is no reason for disappointment or need to face that unexpected expense. Whether buying or selling, there is too much at risk to be on your own. The answers are as close as an email or phone call.

Strategic Aircraft

Tim Lundquist
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Willmar, MN 56201
c. 612.220.3963
email: tim@strategicaircraft.com
www.strategicaircraft.com

Wind Damages Chandler Aviation at Chandler Muni (Arizona)

Tuesday night, August 11th, shortly after the Chandler Municipal (KCHD) Tower closed at 9:00 pm, an Arizona monsoon spawned a microburst that left a devastating trail of damage. Winds gusting up to 70 mph, flipped planes, downed trees and power poles and damaged or "totaled" at least 41 aircraft. The hangar doors for both Chandler Air Service and Chandler Aviation (a Mooney Service Center), were severely damaged. Every aircraft in the Chandler Air Service hangar was damaged beyond repair. In the Chandler Aviation hangar, every aircraft sustained repairable damage. Many aircraft that were tied down on the Chandler Aviation ramp were damaged; some beyond repair.

Frank Setzler, owner of Chandler Aviation (CA), told *The Mooney Flyer* that the insurance companies have been very helpful, but because CA and the insurance companies must go through the City of Chandler's building permit process, this will slow the rebuilding process considerably. Nevertheless, Chandler Aviation continues to operate, almost as if nothing had happened.

Geoff lee.

CFI

Base to Final

I have just been reviewing a different kind of aircraft with Mooney in its name, a Socata TBM. The initials "TB" refers to Tarbes, (a city in SW France), and the "M" is for Mooney. Socata briefly owned Mooney Aircraft Corporation. It seems that the TBM was originally designed as a turbine powered offshoot of the 301. This prototype was a 360 HP, 6 place, pressurized aircraft, produced in Kerrville by Mooney. Just one was built.

In the early 80s, prior to the Socata ownership, I did fly the pressurized 301 a couple of times at the factory and remember the handling to be somewhat disappointing. I suspect that the investment in the development of the 301 helped precipitate that particular decline in Mooney's numerous business misfortunes and Socata came to the rescue.

The TBM was designed by Aerospatiale, a parent company of Socata and was originally intended to be built in Kerrville. However, Socata divested itself of Mooney after a short association. The manufacture of the turbine aircraft was established in Tarbes, France, where it remains today. (See map HERE).

Talking about the performance of turbine aircraft has minimal interest/relationship to the Mooneys that we all fly, except in that in the process of my research into some of the fatal accidents in the TBM, there seem to be some disturbingly similar relationships associated with many of them. These should prompt a "heads up" in our awareness.

The approach speed of the TBM is about 85 to 90 knots. This is not a great deal faster than some of the later Mooney models. At gross and in landing configuration, the TBM has a 62 to 65 knot stall speed, depending upon the aircraft model (TBM 700 or 850). We are usually not at full gross when landing, so there could be some small relief in that area. A rough estimate of the stall speed of a TBM in a 40 to 45 degree bank would be, guess what, 85 to 90 knots, depending on aircraft loading and the value of the G force in the turn.

A significant number of fatal TBM accidents have occurred in steep left turns during landing. The latest was a tragic crash in Milwaukee at Timmerman airport (KMWC). Apparently this aircraft had bounced upon its first touchdown and caught the propeller tips on the surface of the runway. The pilot executed a go-around and was observed to be in a steep, left wing down attitude on its second approach for landing, when the left wing struck the ground. An observer stated that the engine was "very loud".

The TBM's 700-850 HP turbine engine has an additional factor that could contribute to the mayhem in a left banked turn, close to or at stall speed, and that is torque/P factor. Massive HP and huge clockwise turning propeller blades provide a very significant left rolling effect if the throttle is at max.

The NTSB investigation into this disturbing event is ongoing.

The foregoing type of event should prompt a strong desire in all of us to re-examine that page in our respective POHs that relates to the **increase in stall speed relative to an increase in bank angle.** Unfortunately, that particular chart does not also include any information relative to the stall speed increase as G load increases in steep turns, relative to the amount of yoke back pressure being applied or the effect of wind gusts. We must be aware of these possible additional factors when low and slow.

Obviously you are unlikely to be perusing the POH when you're on the base turn to final, but a rough number that's easy to recall is that in a 45 degree bank, the stall speed of your Mooney can be quite close to its approach speed. For example*, The approach speed for an M20F is 80 mph. A stall can occur at about that speed with 15 degrees of flap, gear down, in a 45 degree bank*. If you add turbulence and wind gusts to the equation, have too much back pressure and have the ball a little out of center on the high side, calamity can ensue.

I never encourage pilots to "square the corner" on the base turn to final. I recommend a nice, gently banked, wide curving, **descending turn,** with the ball carefully centered. This is done after checking for downwind traffic, of course. The nose should be low enough to keep the touchdown target in sight, using **power to control the rate of descent and pitch to control the speed**. Developing finesse with trim throughout the approach process will greatly improve the consistency of your landings. The point at which the approach will start to go badly, is on final approach, when the nose commences to obstruct your view of the chosen touchdown target and you have applied sufficient back pressure to place the aircraft in a "flat" attitude, relative to the runway surface. At this point, you have placed yourself in a condition that presents different options, depending upon the remaining altitude.

If you are too low to "pitch for airspeed", you can apply full power and go-around. You could also increase power to reduce/control the increasing descent rate and declining airspeed. Carefully lower the aircraft to the runway with gradual throttle reduction *(do not snatch the power off until the wheels touch down*).You placed the aircraft on the backside of the power curve and have just made a power approach to a landing. Or, if you still have sufficient altitude and runway length, you can lower the nose, reset the power and select another touchdown target that you can keep in sight, further down the runway.

From a point on downwind where the wing is abeam the touchdown target, reduce power and commence a descent. As the touchdown point emerges from the trailing edge of the wing, turn base while maintaining a view of that target. **Keep the aircraft descending through base and final**. This ensures a **continual reduction in the angle of attack** and provides some insurance against a stall condition. If your Mooney has a hard bounce, on the first bounce, if possible, immediately **apply full power and fly out of it.** It is not worth trying to salvage the landing because you may need to salvage your Mooney.

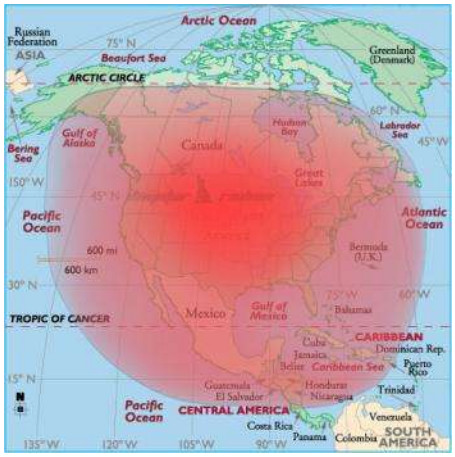
Flight Information Services (FIS) Datalink

by Art Ahrens and Gary Livack

The benefits that Flight Information Services (FIS) provides to the cockpit of GA aircraft by the near real-time delivery of Aeronautical Information (AI) and Meteorological Information (METI) are significant. It enhances both flight safety and pilot situational awareness. This paper focuses primarily on two FIS Datalink services. They are the Satellite Digital Audio Radio Service (S-DARS) (dba XM WX Satellite Service) and the Universal Access Transceiver (UAT) Datalink. It is especially important that Mooney pilots understand the relationship between data delivery vs. the high speed of their aircraft.

LINK DEVELOPMENT HISTORY

In 1995, NASA Langley performed a feasibility study to determine whether GA aircraft could receive broadcast data from satellites. This study paved the way for S-DARS to provide aviation weather products as part of their future suite of services. Technical concerns at the time included whether satellite signals could be received by aircraft when they turned, climbed, descended, etc., along with whether a Doppler shift issue might prevent or degrade its use in flight. Good news: No significant issues were found. S-DARS was good to go, and became the well known XM Weather Satellite Service available today. Likewise, during the same time period, FAA was creating a new surveillance system called ADS-B, and moved forward with creation of technical standards for GPS-based traffic information that could be shared between pilots and controllers. As part of the overall ADS-B architecture, a small portion of the UAT's overall bandwidth was set aside for delivering weather and aeronautical information to aircraft. This decision was intended to help spur GA's interest in equipping with the UAT, not the alternative 1090 ES link that was (and still is) subject to frequency congestion if too many aircraft were to equip with 1090 ES MHz based ADS-B transponders. The slogan back then: The UAT can provide "Free traffic and weather together."



DATALINK COMPARISONS

From an operational perspective, a satellite broadcast link is capable of providing data anywhere within the broadcast footprint of the satellite. In the case of S-DARS, two geostationary satellites currently provide coverage over the "lower 48" with limited coverage over the Caribbean and southern Alaska, and no coverage over Hawaii.

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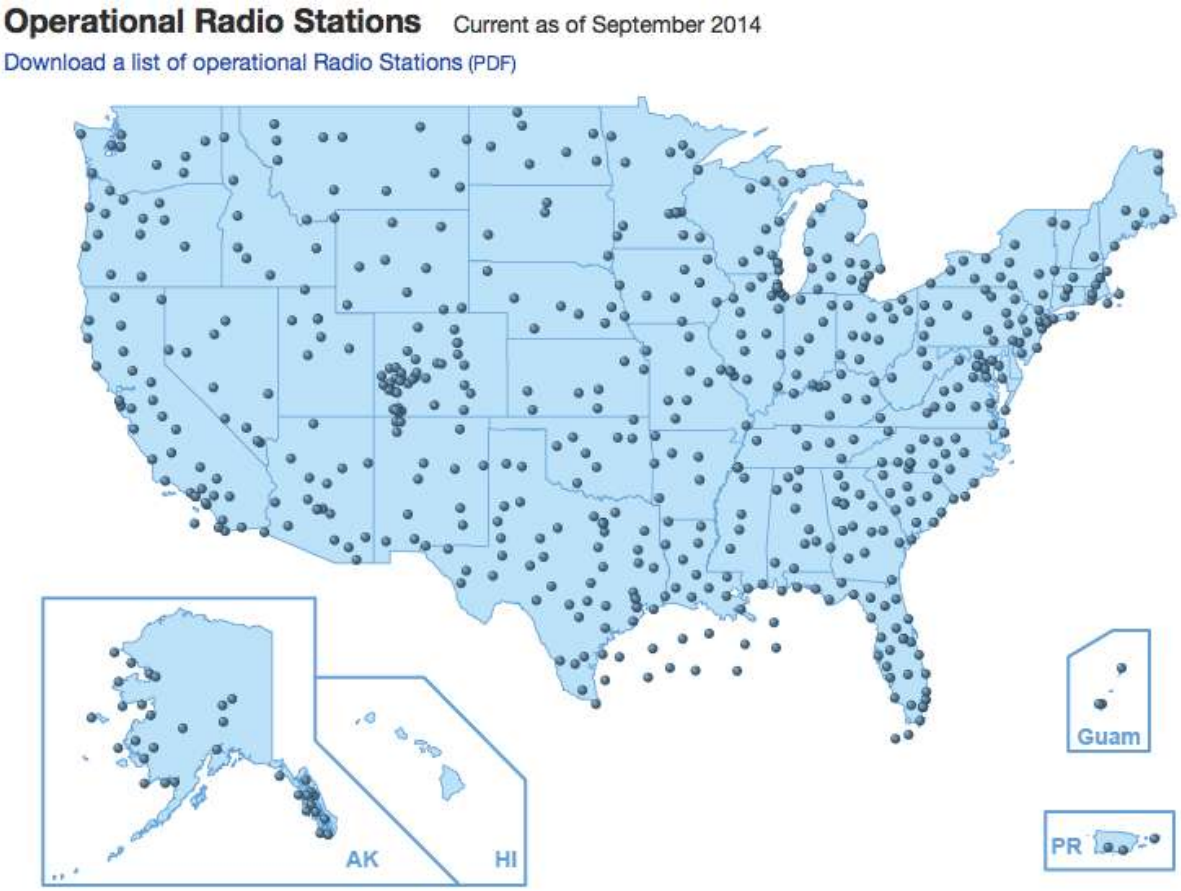
FAA's UAT ground-based Datalink system was developed as part of a lengthy standards development process. The UAT link was then operationally evaluated in Alaska as part of FAA's *Capstone Program*. As part of the Capstone tests, a small number of UAT ground stations were deployed. About 10 percent, or about 30 kbps of the overall ADS-B bandwidth, was set aside for delivery of weather and aeronautical information. Remaining UAT bandwidth was allocated for traffic information: ADS-B, TIS-B, and other services (i.e., what is today called ADS-R.)

As compared to S-DARS, the UAT link is ground based. Consequently, it is line-of-sight limited to within range of the nearest ADS-B ground base station. Multiple base stations are needed to cover the entire U.S. The good news: Over 600 ground stations have now been deployed in the "lower 48" to provide weather and traffic information to aircraft suitably equipped. The bad news: If you're flying low altitude en route, perhaps attempting to fly below the weather VFR, you may not have continuous coverage, especially in mountainous or remote areas.

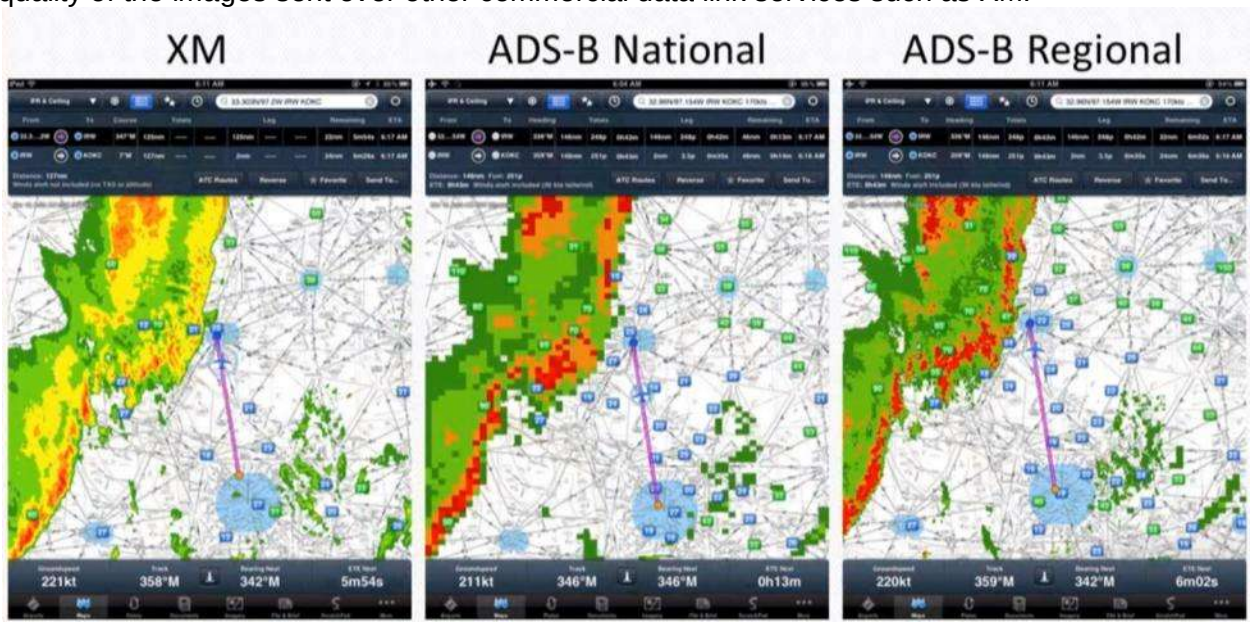


The impact of limited UAT bandwidth to support FIS becomes a technical limitation in at least three ways. First, resolution or fidelity of NEXRAD radar and other images sent to aircraft via the UAT link is reduced in terms of its Pixilation. (Think of a "pixel" as a square. High-resolution Datalink

systems are capable of displaying small squares; low Pixilation-capable Datalink systems can only display large squares. With weather images, the smaller the squares, the more detail can be shown.)

Second, because of its limited bandwidth, UAT services take longer to accomplish a complete refresh than do other higher baud rate systems. And third, again due to bandwidth limitations, more regional data, not national data (potentially needed for en route flight planning purposes) can be sent before another refresh is transmitted. The bottom line -- It takes extra time to update a system whose datalink protocol was originally conceived and "locked in" 20 years ago, back in 1995!

It's fair to say that the quality of the weather radar products sent over the UAT do not match the quality of the images sent over other commercial data link services such as XM.



Thus, the usability of the radar images provided over FAA's "free" FIS-B service network compared to commercial services is subject to debate.

For GA pilots and aircraft owners, the question ends up becoming an economic issue. Pilots need to ask themselves whether the type of flying they do can be supported by a "Free" link service (i.e., FIS-B over the UAT link), or whether their needs and operational requirements support paying for a commercial, fee-based, Datalink service capable of providing more data with higher resolution and more frequent updates.

A discussion about aeronautical datalink services would be incomplete if we did not include a discussion about evolving mobile cellular services. They provide data connectivity to our cell phones, our iPads, and other similar portable devices. Data transfer rates for these services generally allow us to receive lots of data in a short time. They work well on the ground during preflight and during taxi-out. Presently, use of 47 CFR Part 22 cellular data services is not FCC approved for airborne use in the U.S. 47 CFR part 22 formally "prohibits the airborne use of 800 MHz cellular telephones, including the use of such phones on commercial and private aircraft." (This same restriction, however, does not appear to apply to 47 CFR Part 24 personal communication services or LTE.) The hope is that, perhaps some day, cellular datalink using personal communication services can be approved for inflight use, providing pilots with a robust datalink service at an affordable price.

TODAY'S FIS DISPLAYS

There are many different display devices available that display datalinked METI and/or AI. All fall within the category of either a portable or installed display. In either case, a Datalink receiver is required to provide the physical link (i.e., connectivity) between the display device and the authorized data source. Displays can be connected to portable link receivers such as those mounted on the cockpit dash (Example: Appareo's Stratus 2S), or can be connected to an installed FIS receiver (Example: Garmin's GDL-88).

To complete the onboard "system," an accurate position source such as GPS / WASS is needed to generate the source needed for displaying own-ship position on a moving map. GPS allows pilots to know "Where on Earth they are." In two recent instances, having a GPS position source depicted on a moving map helped a "lost" pilot determine where he was on the airport surface. In another instance, the same pilot had to deviate around convective weather. His portable device's software combined his GPS position with the datalinked NEXRAD image into a single composite image that significantly aided his inflight decision-making process. (He landed safety so he could help write this article!)

WHAT CONSTITUTES "FIS PAYLOAD"

There's already a lot written about what constitutes "FIS payload," or the set of FIS products needed to be sent to GA aircraft as part of a robust FIS data link service. What type of information does the pilot really want or need?

There are two general classes of information required: Weather or MET information (METI), and Aeronautical Information (AI). Pilots need both types of information to meet regulatory requirements. There are multiple categories of weather products suitable to be transmitted to aircraft. The appendix section of FAA's AC 00-63 contains a good list of these candidate METI products. Likewise, aeronautical information includes, but is not limited, to up-to-date data for airports, terrain and obstacles, charts, procedures, and Notices to Airmen (NOTAMs), including the potentially politically sensitive subset of NOTAMs called Temporary Flight Restrictions (TFRs). There are several sub-classes of TFRs and you should know the differences between each. See the Aeronautical Information Manual (AIM) for details about each class and type of TFR NOTAM.

Let's discuss just one TFR type: Sport Stadium NOTAMs. You are likely aware there's an omnibus textual TFR / NOTAM out there that talks about **not** flying over large sports stadiums when they're in use. Unfortunately, except for one or two software applications, none of these sports stadiums are depicted on charts. The NOTAM also says that flying over these stadiums

(below a specified altitude) is prohibited from “one hour before to one hour after” the event. Finding the location and start time of sporting events along your route of flight is possible, given due diligence, but finding the end time of each of these events from any officially "approved" source, least of all from a Datalink service, is virtually impossible. (Especially when a baseball game goes into extra innings!). In the future, maybe Datalink services will provide the solution so pilots can meet the intent of this NOTAM. For now, remember that “***FIS should not serve as the sole source of aviation weather and other operational information. ATC, FSSs and, if applicable, AOCC VHF/HF voice remain as a redundant method of communicating aviation weather, NOTAMs, and other operational information to aircraft in flight. FIS augments these traditional ATC/FSS/AOCC services and, for some products, offers the advantage of being displayed as graphical information***.” (AIM Section 7-1-11)

INTEPRETING DATALINKED METI AND AI

This paper would be incomplete without a discussion on how best to interpret the data received. For any product, make sure you check the “date / time group stamp” to ensure that the data you’re viewing is current. Each product should have a date / time stamp prominently displayed. Too many bad decisions have been traced back to having used old data. Weather and AI are dynamic; they constantly change. Pilots need to have and use the very latest FIS products be they textual or in graphical format.

Also, be aware that the date / time stamp correlates with the time when the product was originally created, approved, and released. As a specific example, in the case of NEXRAD radar, it takes several minutes on the “front-end” to combine a single site radar image with other single site images into a meaningful composite graphic, then do a quality control check before release. You need to consider this extra latency when interpreting a NEXRAD image.

Other than the date / time stamp (applicable also to AI data), make sure you also understand the chart legend – that’s the symbology and color palette used to actually depict the product. For some MET products, the colors used, correlate directly with rainfall rates and with turbulence (See Figure 1 for the ForeFlight color coding of NEXRAD images). For AI products, colors and line weight (i.e., thicknesses) used correlate with information on airspace and other features.

THE REGULATORS’ ROLE

This is a big deal! We as pilots need to comply with the flight (operating) rules and with published FAA policy and guidance. The FAA publishes several important sources of information pertaining to use of METI and AI. First, see the FAA’s Aeronautical Information Manual (AIM). Specifically, see AIM section 7-1-11, entitled, “Flight Information Services (FIS).” This AIM section is a must read. Additionally, FAA’s AC 00-63, “Use of Cockpit Displays of Digital Weather and Aeronautical Information” (latest version dated April 7, 2014) is the “bible” on using FIS information.

An important point about what's in the current AIM. Study carefully Table 7-1-1 and Table 7-1-2 in the most current AIM. These two tables provide specifics about the FIS-B products available over the UAT link as well as some of their limitations. Note that the FAA provides only **selected** AI and MET products. Make sure you study the fine print about update rates and how your ground speed might impact your ability to download and use these products. For instance, given a high ground speed, you may not have sufficient time to comprehend and then act upon the information received. (This point needs to be considered in the context of one's operational inflight planning process, and may thus impact the link a pilot may opt to purchase.)

There are several other relevant FAA publications to note. Pay attention to their applicability:

For commercial operators:

- The FAA's AC (AC 120-76C), entitled, “Guidelines for the Certification, Airworthiness, and Operational Use of Electronic Flight Bags (EFBs).” This AC applies to fractional Part 91 and other commercial operations. As you read this AC, remember that the EFB is a function, not a device. AC 120-76C will, at some point, be revised as the "D" version. As soon as the “D” version is released it, too, will be worth a careful read.

For general aviation (non-fractional) Part 91 operations:

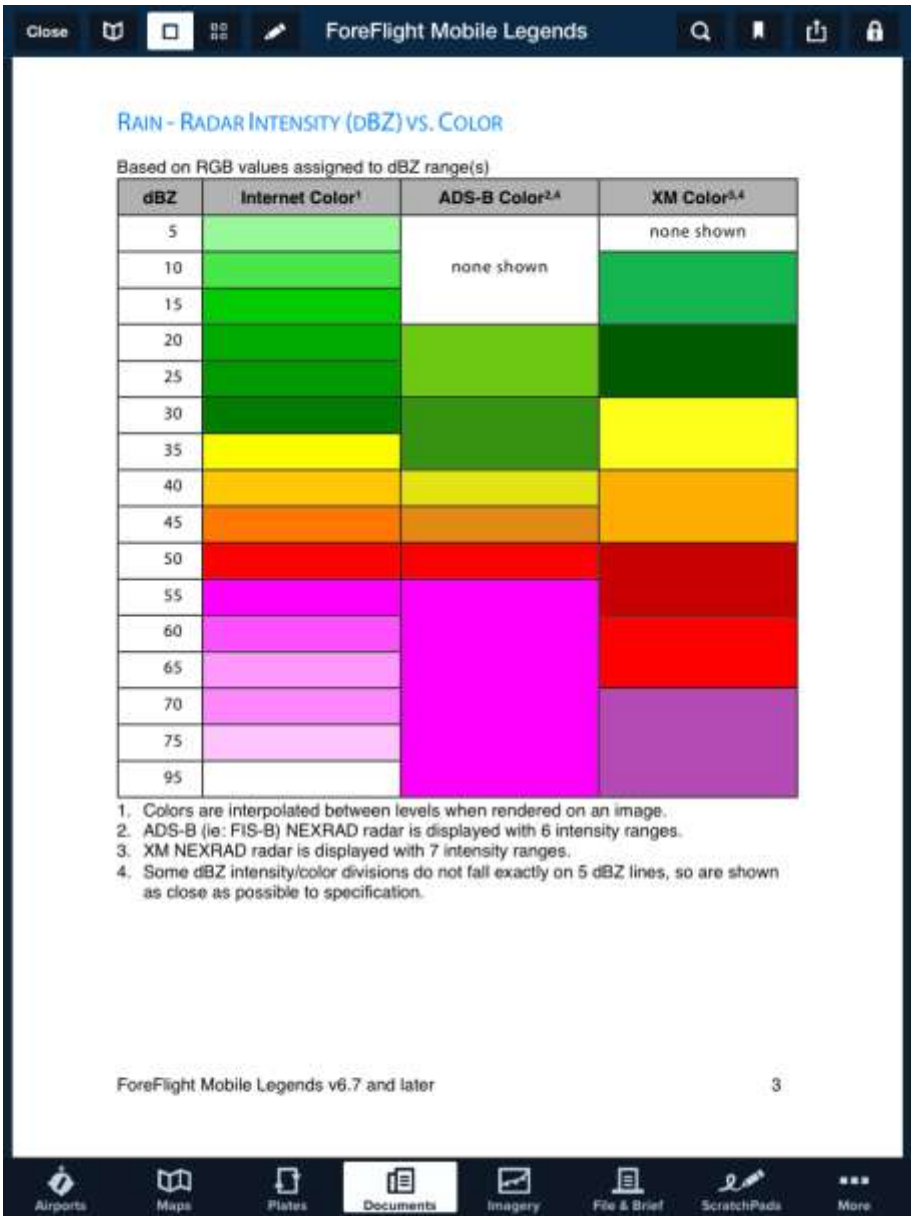
- AC 91-78, “Use of Class 1 or Class 2 Electronic Flight Bag (EFB)” should also be carefully reviewed as it describes what is an acceptable means to remove paper products from the GA cockpit. As you read this AC, keep in mind, “What if your iPad or other display device should fail during flight? What will be your backup plan?" (Pilots should always have a “Plan A” and a “Plan B.”) Having a contingency plan in place should your electronic display fail en route should be part of any prudent pilots’ risk assessment and risk mitigation strategy.

For all aviation operations:

- AC 91.21-1C, “Use of Portable Electronic Devices Aboard Aircraft.” The latest version of this AC was just released May 15, 2015. The intent of this AC is to ensure that portable electronic devices (PEDs) do not interfere with the aircraft navigation, communication, and other onboard electronic systems. It is a must read, especially if you intend to use Bluetooth connectivity in the cockpit. Once you read the AC, please explain to a fellow pilot how a pilot should evaluate his or her own aircraft from an interference perspective. (We haven’t yet figured it out after reading the AC!)
- AC 00-45G, “Aviation Weather Services.” This is another FAA “bible,” this time as a source document for basic aviation weather services. A revision to AC 00-45G on aviation weather services is long overdue. If and when an "H" version is published, it will be worth a read, cover-to-cover. Likewise, a companion AC on aeronautical information services is also needed, but is not yet published.

SUMMARY

FIS over any Datalink service is a tremendous safety and operational tool. (Isn’t technology great!) As always, though, “the devil is in the details.” Unless pilots really understand the operational limitations of the source data, the position source, the link, and display system and its application-specific software, they can easily get behind the power curve. So, pilot education and pilot proficiency go hand in hand in selecting any FIS link, and using it safely. Enjoy!


Close
ForeFlight Mobile Legends
RAIN - RADAR INTENSITY (DBZ) VS. COLOR
Based on RGB values assigned to dBZ range(s)
dBZ
Internet Color[1]
ADS-B Color[2,4]
XM Color[3,4]
5
10
15
20
25
30
35
40
45
50
55
60
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70
75
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none shown
none shown
1. Colors are interpolated between levels when rendered on an image.
2. ADS-B (ie: FIS-B) NEXRAD radar is displayed with 6 intensity ranges.
3. XM NEXRAD radar is displayed with 7 intensity ranges.
4. Some dBZ intensity/color divisions do not fall exactly on 5 dBZ lines, so are shown as close as possible to specification.
ForeFlight Mobile Legends v6.7 and later
3
Airports
Maps
Plates
Documents
Imagery
File & Brief
ScratchPads
More

TBL 7−1−1

FIS−B Over UAT Product Update and Transmission Intervals

Product	FIS-B Over UAT Service Update Intervals[1]	FIS-B Service Transmission Intervals[2]
AIRMET	As Available	5 minutes
Convective SIGMET	As Available	5 minutes
METARs/SPECIs	1 minute/As Available	5 minutes
NEXRAD Composite Reflectivity (CONUS)	15 minutes	15 minutes
NEXRAD Composite Reflectivity (Regional)	5 minutes	2.5 minutes
NOTAMs-D/FDC/TFR	As Available	10 minutes
PIREP	As Available	10 minutes
SIGMET	As Available	5 minutes
SUA Status	As Available	10 minutes
TAF/AMEND	8 Hours/As Available	10 minutes
Temperatures Aloft	12 Hours	10 minutes
Winds Aloft	12 Hours	10 minutes

[1] The Update Interval is the rate at which the product data is available from the source.

[2] The Transmission Interval is the amount of time within which a new or updated product transmission must be completed and the rate or repetition interval at which the product is rebroadcast.

Figure 1: Comparison of Internet rain intensity / dBZ versus color and the color palettes applied to the XM and UAT NEXRAD displays. Note that the internet source is displayed with 16 intensity levels which are best suited for ground/preflight planning or when viewed on large PEDs. (Figure source: ForeFlight's Mobile Legends document. Used with permission. This ForeFlight Mobile Legends document also contains similar tables for "mixed rain/snow," and "snow.")

IT'S HERE!

- ★ IT'S CERTIFIED!
- ★ IT'S PRESSURIZED!
- ★ IT'S BIG!
- ★ IT'S FAST!
- ★ AND IT'S AFFORDABLE!

Showing at NBAA!
The sensational Mustang, plus the Mooney Executive 21, a big, roomy new addition to the Mooney line, and the 1967 MU-2 Turbo-prop.

Discover the excitement of cruising in calm, clear air at 20,000 feet, 230 miles per hour, in pressurized comfort. For most pilots, this is a new realm of flight, a new place in the sky, away from the crowd . . . like flying your own personal airliner, free from cumbersome oxygen mask. You can discover a wonderful new way to fly and you don't have to be a millionaire to do it. The MUSTANG costs no more than slower, unpressurized, single engine aircraft on the market today.

The Mooney MUSTANG takes you a giant step forward in modern aviation performance. Sound great? Wait until you see it! — and fly it! — and own it!

Production is rolling; deliveries are starting, and already we have a long waiting list. Write us for a free, full-color brochure giving detailed performance and specification figures.

FLY modern — fly Mooney with PC MOONEY

Mooney Aircraft, Inc. • Kerrville, Texas • Where experienced engineers find new challenge and wholesome living.
Circle no. 100 on reader service card

Send your questions for Tom to TheMooneyFlyer@gmail.com

Question 1: Should I fly at 75% or 65%?

This is fairly easy to answer. It depends on how fast you want to go.The considerations are fuel consumption and range. When I started flying, fuel was relatively inexpensive, so you flew because it was fast and fun.
Now you may need to consider the cost of fuel, but generally I preferred 75% power. It always seemed to provide the best speed and the smoothest engine performance, and it doesn't matter which make of engine. However, I do believe the turbo engines run better at higher power. The other factor to consider is range. Reducing power can extend range considerably and may be your most important planning factor. I don't feel that running at reduce power (below 65%) for long periods of time are good for the engine. I believe you need a certain minimum range heat in the cylinders for proper compression and serviceability.

Question 2: Should I run rich of peak or lean of peak?

I am not getting into this argument! What I will say is the engine manufacturers have designed engines to operate under both scenarios. For example, in 1984, when Piper introduced the Malibu, it was a lean-of-peak engine only. It does seem like TCM has developed more engines to run lean-of-peak like Lycoming has, but that may be just my opinion. Learn all you can about your engine and how to operate it. I tend to go with the people who built the engine. That's because in my business, I deal with a wide range of owners, from low to high in experience; not just the "high experience" owners.

Bryce Canyon, Utah

by Linda Corman

In last month's issue of the Flyer, Phil talked about our trip to Oshkosh and back again. I want to talk about our individual stops and what we did while we were there. Our first stop was Bryce Canyon and we actually landed at the Bryce Canyon airport. This was a stop that we really wanted to do because our kids and grandkids were there doing their RV vacation in the West. First our landing at Bryce Canyon airport was a thrill, because at 7590' MSL, it was our highest landing to date. Even with a strong crosswind, we did an awesome job of putting the Mooney down right where she should be. Our kids and grandkids greeted us at the airport tarmac with hugs and kisses. Of course we had to do the typical grandparent thing of pictures with everyone in and around the Mooney. As the kids had an RV, we didn't need to rent a car, so off we went to check in at Ruby's Inn. Ruby's Inn is an historical landmark in the Bryce Canyon area with an old West era motif. It has a huge souvenir shop, grocery store and huge family style restaurant. I had called ahead to rent the room and was asked by the person on the phone if I wanted a room by the lake. As I wasn't aware they had a lake, I of course said yes. When we finally got to our room we realized the lake is really just a pond. But, it was a good idea to rent one of the rooms in the outlying buildings, because the

lodge was pretty crowded. Everyone was hungry, so we decided to eat in the lodge's large dining room, which features a huge buffet. I can't comment on the buffet because I ordered off the menu. Sadly, my sandwich came without any condiments and was very dry. After everyone was fed, we were off to enjoy the park and do a little hiking in the canyon. We first drove into the park with the RV and wasted some time looking for parking. After driving from trailhead to trailhead, we were told by one of the Rangers that parking at the park headquarters and taking the "free bus" was the best way to go. He was so right. The bus runs every five to ten minutes and stops at each trailhead and scenic lookout in the park. We had a great day walking with the kids and packing the grandkids around. We had been to Bryce Canyon before, but it was fun to enjoy the outdoors and the beauty with our kids. We hiked the rim walk this time and could see vistas stretching out forever. You can hike the mostly level rim walk for miles. It runs from Fairyland to Inspiration Point. It's pretty long, but we have hiked from Sunrise Point to Sunset Point and also from Bryce Canyon Point to the Lodge. Both trails offer breathtaking views into the Canyon. For the more adventurous, take the Navajo Trail and Queen's Garden Trail down into the canyon and get immersed into the wonder of Bryce Canyon. The best times of day are early in the morning and at dusk when the temps are cooler and the shadows dramatic.

After a day of hiking and dust, everyone decided a dip in the RV Park's pool would be a great idea. This was just a short walking distance away from our room, which was ideal. The pool was pretty crowded but we found room for the grandkids to play and splash around. It was very refreshing and I think as long as water is near, the kids are happy. That evening we walked across the street from the Ruby's Inn, where some cute old west store fronts were located. Inside, there are several souvenir shops and a great rock shop that our granddaughter really enjoyed. Of course after all the hiking and swimming, we all needed to cool down with some ice cream. There are not a lot of eating establishments to choose from, so for dinner, we again ate at the Inn's restaurant. Also, across the street from Ruby's Inn is where you can find horses and equine professionals to take you up into the mountains for a few hours of riding. To get your reservations and pay for the joy of a long dusty ride, you need to stop at the desk located in the Activites Desk in the Lobby of Ruby's Inn. We had done this questionable activity on a previous stop at Bryce Canyon. To be fair, it was fun, as the horses are very tame and quite lazy, so there is no fear of the creature running away with you. The trails the equine professional chose were lovely and the views wonderful. To entertain the other guests, we had a great time singing every cowboy song we knew.

I am not really a big souvenir shopper, but the store inside Ruby's Inn had some very nice tee shirts and baseball caps, so you can announce to the world you had been there. I did like some of the native art and jewelry they had on display. In the back of the store, there is a shop dedicated to native arts and crafts. Looking here is very worthwhile. One nice thing about the souvenir

store was an actual grocery store, where you can buy staples, if needed, to hold you over until you find a saloon or a cocktail bar. We really had a great time visiting with our family and it was a wonderful first stop on our cross country adventure to Oshkosh. Of course, as everyone knows, it wouldn't have been possible without our Mooney.

Bryce Canyon Airport (KBCE) has wide open approaches to runways 3 and 21. It is, however, located next to a canyon with squirrely winds and it's high, at 7590' MSL. You need to be on your best Density Altitude (DA) game. Fly in and out in the morning or late afternoon for best results. The fuel and the rental cars are competively priced. The FBO is top notch, and you park right in front of the terminal. RNAV/GPS Approaches are available for both runways.

KBCE TRIVIA: In the mid 1930's, Garfield County wanted an airport to attact tourism.The US government needed an airport capable of handling large aircraft, in case one had an emergency while flying between Denver and Las Vegas. The Works Progress Administration (WPA) built KBCE in 1936. See http://www.brycecanyonairport.com/airport-info/about/

Mooney Flyer Fly-Ins

October 9-11: Here We go Again
PAGE/LAKE POWELL FLY IN

Come for a weekend of fun and information

The Plan- Lunch as usual at the airport on **Saturday Oct. 10th at 12 noon** sharp! Be there or be square. Last one to the trough gets the leftovers. A donation for lunch would be appreciated.

The Information- This time we will have a hands-on maintenance session. We'll have one Mooney on jacks to show you how to jack the airplane and how the gear pre-loads are taken. We'll show you how to find wear on your nose gear steering, how to check your tail section for wear, what we mean by "zero bungee force" elevator setting on vintage Mooneys, and how to "level" the airplane. We'll also show you how to change, clean and inspect a spark plug, how to use a torque wrench the correct way and maybe have time to change a tire the correct and safe way. Try your hand at safety wiring if you've never done it before. You will look at the Type Certificate Data Sheets (TCDS) for Mooneys so you will know what they contain. We'll go over just what YOU can do as a licensed pilot AND owner of your airplane for Preventive Maintenance. You can do a lot of your own work AND sign it off in the log books. We'll go over the sign offs also. It will be a busy afternoon for about 2–3 hours.

Other Interesting Stuff- For those who arrive on Friday, we'll get together for dinner at a local restaurant (TBD). For those staying Saturday night, we'll have dinner somewhere, but beforehand, we may be able to tour a new large houseboat and "walk the docks" among million dollar houseboats. Sunday is on your own.

There are always other tours and things to see in Page if you don't need the hands on experience:

- You can do an air tour of Lake Powell from your airplane (better than Monument Valley @ 30 mins away by Mooney). The lake tour directions are on the VMG website.
- A dinosaur museum is about 15 miles away with a new, previously unknown Velociraptor discovered nearby, by a local amateur paleontologist.
- A guided tour of Antelope Canyon (a 15 min drive from the airport).
- A short drive (10 mins) and then a walk out (1/2 mile) to view Horseshoe Bend on the Colorado River from atop a 900' canyon wall. This is right where John Wayne stood at the beginning of the movie "Red River" in 1948.
- A morning float trip down the Colorado River from the Glen Canyon Dam to Lees Ferry. There is NO WHITEWATER and it takes about 3 hours. If you take this trip, ask Cliff where to see the dinosaur footprints on the trip. No one will tell you except him.
- A guided fishing trip on Lake Powell
- A tour boat ride on the Lake
- You can rent jet skis and boats on the lake
- Off Road 4 wheelers are available in town for excursions.
- Of course, we'll have an FBO fuel discount and group parking.
- Sign up early so we can have something to plan on, Thanks!

CLICK HERE to Register for the Fly-In

Florida Mooney Lunch Group

September 12 Lakeland (LAL)
October 10 Flagler (XFL)
November 14 Vero Beach (VRB)
December 12 Punta Gorda (PGD)
January 9 Leesburg (LEE) Lunch will be at the EAA hanger, after lunch we will go to our house and run the garden railroad, transportation provided by locals both ways.

Lakeport, CA (1O2) - Clear Lake Sea Plane Splash In (Sept. 25-27) and the Pear Festival (Sept. 26). For more information, CLICK HERE

CLICK HERE **for LASAR BBQ details**

MooneySafety.com

Atlantic City, NJ **September 11-13, 2015**
Fort Worth, TX **October 23-25, 2015**

Goodbye 122.0 – Flight Watch will be a Thing of the Past on September 24th

The FAA will discontinue the universal Flight Watch frequency 122.0 MHz for in-flight weather services on September 24th. Weather services provided under the Flight Watch program En route Flight Advisory Service (EFAS) will continue to be provided via charted frequencies pilots use to obtain weather information, open and close flight plans, and for updates on NOTAMS and temporary flight restrictions (TFRs). After September 24th, the FAA will continue to monitor 122.0 MHz for several months to assist pilots in locating a local frequency.

The FAA also will end the little-used Remote Airport Advisory Service in the continental United States on Oct. 1. (The Airport Advisory Service in Alaska will continue to be provided).

Providing the weather services on local flight service frequencies will resolve issues of bleed-over and frequency congestion that have occurred on 122.0 MHz. Another advantage of the change will be the availability of the services on Flight Service frequencies monitored 24 hours a day, seven days a week, as opposed to the limited monitoring of 122.0 MHz.

Trig ADS-B STC Expanded

Trig's STC, which is free for existing and new customers, covers 576 aircraft types and allows a range of compliant GPS devices to be used, including the popular Garmin GNS and GTN navigators. The TT22 transponder Control Head has a built-in altitude encoder and uses the existing aircraft antenna. This transponder uses 1090 MHz, the international standard for ADS-B, increasing operational flexibility and allowing use world-wide. It has a list price of $ 2,875.

ForeFlight Web to Pan Planning Tools

Plan your flights on your desktop or laptop computer, automatically sync them to ForeFlight Mobile on your tablet and then use ForeFlight Connect to sync directly with your avionics in the cockpit. That's the vision ForeFlight's creators have for their flight planning subscription service with new web browser capability now in beta testing.

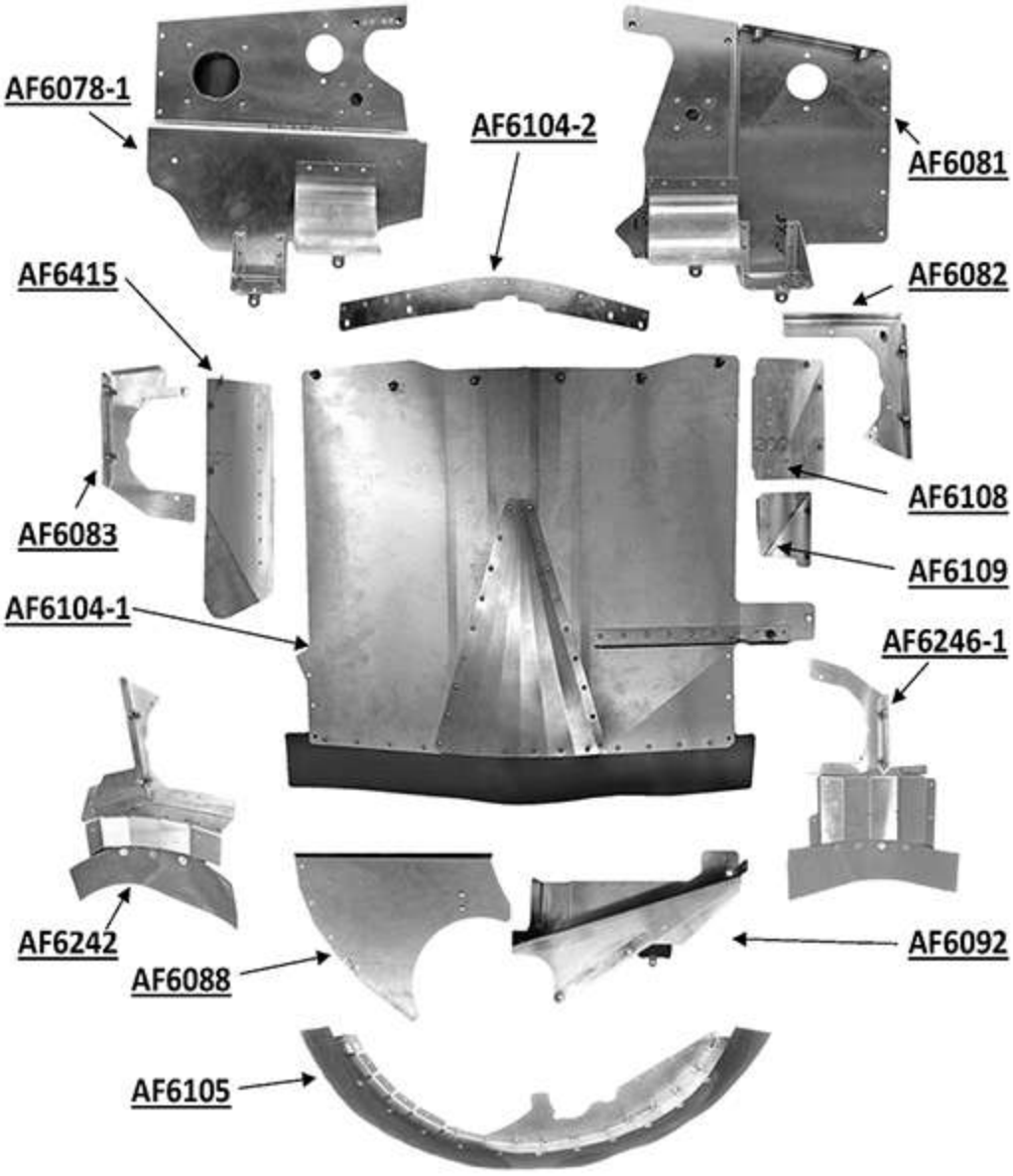
Whether they plan to take advantage of all the possibilities the improvements offer, subscribers are excited about the coming rollout of ForeFlight for the web since it will make flight planning all that much easier. Non-subscribers who don't own iPads, meanwhile, can't wait to have access to a platform they have long envied from afar.

The ForeFlight web portal will compete head to head with runaway segment leader Fltplan.com and newcomer SkyVector.com.

ForeFlight isn't saying when the "Web to Panel" concept will be ready for its commercial adoption, but since the company is talking about the idea openly and inviting users to become beta testers, it probably won't be too far in the future.

Baffle Kit for M20 B/C/D

Click Here for details.



Flight Enhancement Corporation RELEASE

Flight Enhancements Corporation is pleased to introduce the Auto-Lean to the certified aircraft world. Auto-Lean is now FAA certified on most Mooney aircraft models. Flight Enhancements has also been awarded Parts Manufacturing Authority (PMA), indicating that the FAA has approved the Quality System.

While manually setting the mixture in an aircraft has been part of the aviation culture since the earliest days, it is not the most efficient or repeatable task. Auto-Lean provides automation of your aircraft mixture control at a fraction of the cost of a FADEC system. It can be used throughout the flight to provide consistent mixture control. Use Auto-Lean during climb to hold sea level EGTs and watch your fuel flow decrease with increased altitude. Once in cruise, select your desired EGT.....best efficiency, peak power, Lean of Peak (LOP) or Rich of Peak (ROP). By providing repeatable results, Auto-Lean can save you fuel or provide peak power while keeping consistent temperatures. No more staring at your EGT instrument, waiting for results. Auto-Lean allows you to focus on tasks like traffic awareness, instrument flying and just enjoying the flight while it does the task of setting the mixture for you. Once activated, Auto-Lean will finish the job.

Auto-Lean was developed to adapt to most horizontally opposed Lycoming, Superior, and Continental engines. It has been tested on fuel injected, turbo-charged and carbureted engines. The compact design is easily installed on most aircraft, with our unique mixture control adapters. While compact, it is easy to operate with its few controls.

The Auto-Lean was designed with safety as the top priority. The software has numerous safety features to insure optimal performance without the risk of a runaway mixture. In addition, the microprocessor can be overridden with the manual RICH/LEAN switch. It allows for easy start, shutdown, and for manually slewing the mixture to other settings.

Auto-Lean is an autopilot for your mixture. For more information, visit our website or call or email us today to discuss your application and the benefits of Auto-Lean. Pricing starts at $599.00 for basic experimental kits to our special promotional certified pricing of $899.00. Call or email today for more information.

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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.

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South Dakota

Doug Bodine, Commercial Pilot/Flight Instructor
Cell 605 393-7112, mei.cfii@gmail.com
I am a retired USAF pilot, now working as a commercial contract pilot, so various model experience from WWII Warbirds through heavies. I have been flying Mooneys for 12 yrs and have a 201. I have been instructing since 1994 and am at about 10,000hrs. I actively instruct in tail wheel and turbine as well. I have flown all the common Mooney modifications – missile, rocket, screaming eagle, trophy, etc. Even have time in the M22 Mustang.

Texas

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William Wobbe, william.wobbe@gmail.com, (713) 249-7351
Leesburg, VA. ATP, SES, SEL, MEL, MES, CFI, CFII, MEI, AGI, IGI, ADX. Time in M20B through M20TN models and very familiar with Garmin G-1000, GTN750/650, and G530/430 avionics. 1600+ dual given in Private through ATP training. MAPA PPP instructor and lots of experience in cross country all weather flying including TKS Known Icing Systems. Flight Service Station Specialist and familiar with iPad weather planning apps such as ForeFlight. Can answer questions on the Washington, DC SFRA and ICAO Flight Plans.

For Sale

King KX155 Navcom and KI 209 Glideslope Receiver. Removed from my Mooney 201 due to an upgrade to my panel. Guaranteed to work perfectly. Asking $2995 for both units.
Contact Henry Punt at henrypunt@gmail.com, Ph: 562-881 9018

For Sale – 1978 Mooney M20J 201. Aspen with extended warranty, Avidyne traffic, storm scope, very good paint 8, interior a 7. King 200 autopilot coupled to the Garmin GNS 430 and Aspen. Factory engine with 850 hours. $ 88,000 - mbmaksymdc10@aol.com

Mooney M20J/201, N9269N, S/N 24-0751

TTSM 961/TTSN 3189
Engine time 961 SMOH by Triad
Propeller HC-C3YR-1RF 3-Blade 961 TTSN
Annual due 3/31/2016
Useful Load 1024
Avionics: GNS 430 w/ GI-106SCDI (cable wired for WAAS)
KX-155 Nav/Com w/KI-208

KMA-28 Audio Panel
KR-85ADF w/KR-225 Indicator
KT-76A Transponder Mode C
JPI-700 Engine Monitor w/Fuel Flow (monitored to GPS)
Century 11B Autopilot w/ Heading Bug

Other: Yoke Mounted Electric Trim and Map Light
Vertical Card Compass
Davtron Digital Timer
Sigtronics 4-Place Intercom
Electric Gear, Trim and Flaps
True Airspeed Indicator
Overhauled Magneto w/New harness
New Landing Gear Donuts, New Muffler, New Engine Lord Mounts
New Concord Sealed Battery

New Engine Vacuum Pump
LASAR Mod Enclosed Strobe Wing Tips
Wing Root Fairings
Clam Shell Nose Gear Door, Panel Overlay
New Leather Interior Seats

Contact Eddie Smith @ 803 684-3425 or easeddie@aol.com. More views at http://www.heraldonline.com/news/business/biz-columns-blogs/don-worthington/article12303545.html. Appraised at $85,750.00, asking $78,500.00 or best reasonable offer. I have owned for fourteen years; selling for medical reason.

Mooney Cover

This cover will fit a newer, longer body Mooney. Asking $600 (When new, these covers cost $1,149)
Contact Jason Herritz at Chandler Aviation, Inc.
480-732-9118 parts@chandleraviation.com

1959 M20A for Sale, As Is

My brother was a Mooney enthusiast, who died nearly 12 years ago. My parents inherited his Mooney M20A (SN 1276). It's been sitting in a hangar at Hicks Airfield near Fort Worth since that time. It was flying until maybe November, 1989, when the prop was tagged.
Total time, 2608 and Tach time 187.
This is a definite fixer-upper. My brother loved his plane and maintained it very well. We have all the documentation and log books back to its original purchase in 1959.
Please make an offer. The buyer would have to transport it.
Contact information: Deborah Evans
Home: 972-985-8471; Cell: 214-213-0865; email: Deborah.parker@verizon.net

More Photos, next page

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Fly Ties

As advertised in a previous Mooney Flyer. Used only once in Kerrville where nothing else would work. These worked great. Easy and convenient. Price: $50.00. Free shipping. Call 678-848-9899

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