



Grandmother Relives Her First Tri-Motor Flight 80 Years Later

By Eric Whyte

August 27, 2013 - EAA lifetime member Eric Whyte seized the opportunity last weekend to give his grandmother a chance to step back in time and relive her first airplane ride as EAA's Ford Tri-Motor made a tour stop at the Wings Over Waukesha Air Show in Wisconsin.



Ruth and Eric on the flight deck of EAA's Ford Tri-Motor August 25.

In August 1933, nearly 80 years ago to the day, just-turned-12-year-old Ruth Jacoby-Whyte saw an ad in the local newspaper about an air show being hosted by the fledgling Waukesha Aviation Club at the Waukesha Airport. They were offering rides in a Ford Tri-Motor piloted by famous air racing pilot Jimmy Haislip for \$1.

Since it was around her 12th birthday, Ruth persuaded her parents to take her to the airport for her first airplane ride.

She recalled the pilot collected the dollars from passengers as they boarded. The flight, she recalled, was spectacular. "It was quite exciting to see the city from above," she recalled. "It was only a few years after Lindbergh and flying was a big deal back then."

Recently her grandson, Eric, EAA Lifetime 357260, sent Ruth a Facebook message about the Wings Over Waukesha Air Show and said that EAA's Ford Tri-Motor would be there. Would she like to come out and take another ride in the Ford?

"She jumped at the chance," Eric said. And to top things off, Eric would be on the flight deck, not Jimmy Haislip. Also flying was Ashley Messenger, and both pilots fly the vintage plane as volunteers in EAA's Ford Tri-Motor flight program.

So on Sunday morning, August 25, Ruth arrived at Waukesha County Airport for her second Ford Tri-Motor flight in 80 years. They even staged the photograph of paying the pilot \$1 for the ride (although Eric swears he didn't actually keep the dollar!).

"The flight was really special and I was so pleased to be able to do it," Ruth would say later. "It was fun to see that airplane again after 80 years, and having my grandson be the pilot, well

that just made it extra special."



Ruth Jacoby-Whyte rides in the EAA Ford Tri-Motor 80 years after her first flight in a Tri-Motor in 1933.

Ken would quickly get involved in a relatively new organization based in Milwaukee called the Experimental Aircraft Association. He later became volunteer chairman of Homebuilt Parking at Oshkosh, a post from which he stepped down only last year after 34 years.

It's no surprise that Eric makes his living as a corporate pilot having grown up around aviation. Bitten by the flight bug early in life, Eric began volunteering at EAA at the age of 7. He attended the EAA Air Academy in 1990 and later became a Young Eagle. Eric made his first solo flight at the very same Waukesha County Airport on his 16th birthday.

He holds the distinction of being the very first Young Eagle to earn his pilot certificate and fly Young Eagles himself. Eric also serves as chairman of the EAA Air-Venture Cup Race, which he helped organize 16 years ago.

That air show 80 years ago? Its purpose was to promote the airport and convince the county board to expand it. Looks like they made the right choice.

Eric also had an opportunity to fly two of his nephews in the Ford Tri-Motor at Waukesha, so the journey continues.

Ruth, now 92, raised her family in Waukesha. Her brother, Edward Jacoby, learned to fly at Waukesha after returning from World War II. Edward introduced his nephew (Ruth's son and Eric's father) Ken Whyte, EAA Lifetime 49308, to flying in the 1950s. Ken learned to fly under the watchful eye of Waukesha Aviation Club co-founder Dale Crites in the early 1960s.



The flight in 1933 cost Ruth \$1 - re-enacted above with her grandson Eric.



Eric Wolf, EAA Chapter 838 President

By all accounts, Monopoly night this year was a success. Year after year we have had an increase in attendance and this year is no exception. Clearly we are doing something right as nearly everyone comes back every year. I was so busy taking people to jail that this year I added a much needed deputy (my girlfriend) to lighten the load. I was talking to one of the Kohl's volunteers (they have sent volunteers every year) and we both recalled how small in comparison the first one was five years ago. There were only a handful of tables then, but it was done right with good food, good drinks, and good

company. Five years later, the fundamentals have remained the same while the size has grown tremendously. We have created a monster and my biggest concern now is having enough space for future years. I suppose this falls under the heading of "a good problem to have."

I should mention that by "we", I mean the Monopoly committee members past and present are responsible for the success of this monster. This year was another success due to the committee led by Kristin Niemiec. In the past, Ken Sack was the leader of the pack. Our success has drawn attention; I've had questions from other EAA chapters about the details of how we run the event.

We had many volunteers and contributors for Monopoly night, but I must mention that in addition to Daryl and Kim Lueck buying two tables in years past, they bought three tables this year AND bought pizza for everyone at the end of the night. Extraordinary!

At the last membership meeting, we voted in the slate of candidates for board positions. They are:

President – Daryl Lueck, **Vice President** – Open, **Director** – Ken Sack (re-election),

Director – Eddy Huffman, **Director** – Open

Of course the word "open" suggests that we need people to fill those rolls. This is an opportunity to be involved in the decisions that affect our organization. If you are interested in either of these spots, contact me or Daryl Lueck.

The outgoing directors are Tony LoCurto and Jim Senft. Thanks for your service the last two years.

Our C-130 Lives a New Life

The NASA C-130 that was part of Chapter 838's museum shown below departed Racine in December 2011 for a new make over and life with the U.S. Forest Service. Thanks to Dave Mann for providing this information.



NASA C130, Photo by Phil Fountain

Coulson's C-130Q, Tanker 131, can see light at the end of the tunnel. The aircraft has the new wrap applied and looks pretty spiffy. Today they flew it from San Bernardino up to McClellan to get approval for FAA Part 137, which is for "Agricultural Aircraft Operators", for "dispensing of any chemical designed to treat the soil or crops".

Britt Coulson told us they are still working out a few certification details with the U.S. Forest Service, but their goal is to have the aircraft ready to drop retardant over fires as early as the end of this week, or at the latest, next week. The tank holds 3,500 gallons and very seldom will they have to reduce that load due to density altitude. Eventually they may install a larger tank.



T 131 taxiing. Photo by Dan Megna.



Racine EAA Chapter 838

Events

Meetings

Third Thursday's 7:00 pm

Social 6:30 pm

November 2013

Volume XXIV Issue II

www.Eaa838.Org

EAA Chapter 838

Holiday Party

Friday, December 06 - 6:15 p.m. Cocktails - 7:00 p.m. Dinner

Reservations must be made in advance
by Monday December 02 to
Eric Wolf at 262-989-9653 or
N184EW@Yahoo.Com

Payment accepted at the door. Soda, beer and wine provided.

Dinner catered by Fohrs



Merry Christmas



Racine EAA Chapter 838

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Third Thursday's 7:00 pm
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Monopoly Night Fun and Games 2013

People laughed, cheered and applauded as another "guilty party" was hauled off to jail by Sheriff Eric Wolf and Deputy Charlotte Dickson. Of course, it was all part of the fun a sellout crowd was having at Monopoly Night, EAA Chapter 838's 2013 Fall Fundraiser. Going to jail was only part of the fun the spirited crowd experienced.



When the evening had ended and the winners at each table were crowned, it left many others saying silently under their breaths "Just wait till next year. I can't wait to come back here and get even." Which would be a good thing for EAA Chapter 838 and guests because Monopoly Night is an annual event.

Raising money to support Chapter 838 and its many important programs is what these fun evenings are all about. They are made possible thanks to the leadership of Ken Sack, Kristin Niemiec and



Ms Monopoly Cathy Wrycza, along with the hard work of volunteers Jerry Bovitz, Katie Clark, Phil Fountain, Barb & Jim Hantschel and Dave DeGroot. Thanks, too, to our special supporters Kim and Daryl Lueck, Twin Disc, Hilton Ritter, Dean Steinbacher, Roy Stewart and Associates, Garbo Motors, Beacon Technologies, Chuck Heide, Educators Credit Union, Marsh Meredith & Acklam Funeral Home and Kohls Department Stores.



It turns out that Monopoly can be a fast pace, "in your face" game capable of generating a very competitive spirit among adult players. Winning becomes important. Really important. So much so that it can briefly turn husband against wife and friend against friend.



Our Monopoly Night events have been both socially and financially successful in the past and our 2014 event is already scheduled for October 11th. It, too, will feature delicious food, cocktails, a silent auction, a pleasant setting, good friends, a hospitable jail house, laughs and lots of fun. It's not too soon to mark your 2014 calendars so please do so and plan to join us next year.



Monopoly is a slow paced, boring game intended for kids. And, it can go on forever. Right? If you thought that you'd be wrong, VERY WRONG!, especially if you attended Monopoly Night on Saturday, October 12th at the Chapter 838 facility in Racine.



The spirit of the game...and of the evening...turns kind-hearted, generous people into plotting, scheming investors bent on putting others out "on the street" and into bankruptcy. Something like the real world? No, but there are a few similarities.



Supported Programs

Young Aviators

By Michael Palazzola

Last summer I was overcome with the exuberance of having some extra cash, a new friend connected with Boeing, and the feeling to do more for the young aviators program. This somehow melted into a "Seattle trip." Throughout the spring three young aviators were selected. On August 14 we boarded frontier airlines out of Milwaukee and made our way to SeaTac airport.

We stayed at a hotel within a few miles of the airport. With easy access light rail, bus station, and car rental places. Renting a car and chauffeuring kids around seem like a lot of work for me. So I only rented a car for the next day's drive up to Everett.

On Thursday morning we left the hotel early, and started our hour plus drive through Seattle rush-hour traffic, towards the Boeing factory. Our first stop was the Museum of flight restoration center. Bob Rapp, a Boeing engineer and a donor to young aviators, met us in front of the building with the docent gave us a tour of the shop. This facility repairs aircraft to be used at the Museum flight Center. The aircraft are not restored to flying conditions, only to museum quality standards allowing non-certified mechanics to work on the aircraft.

We spent about two hours here, and the kids enjoyed it more than I thought they would. To me it was a typical old hangar, with the smells of gasoline, oil and rubber. But to the kids it was more like a biology class on what the inside



of airplanes look like.

The next stop was the Future of Flight Aviation Center. We had lunch and about 40 minutes to view things on our own. This building is designed to educate the public on basic airliner principles. Exhibits from Boeing, GE and Airbus are on display. Mr. Rapp had a docent give us a more in-depth tour, and tell us stories about the displays. From an observation platform we saw Boeing bring wings in for the 787 from Japan, in a guppy style airplane called the dream lifter.

Next was the tour of the Boeing assembly lines for the 787 dreamliner and the 747. You enter the Boeing assembly building via tunnels, and take an elevator to overview positions looking down on the assembly line. Visitors are not allowed to take cameras and cell phones in the

building, so I don't have pictures to show you. But it is an incredible sight to see an airliner come together within the length of a factory. That evening we took Mr. Rapp to dinner and thanked him for escorting us to the future of flight and the Boeing public tour.

Friday was our Seattle day. Keeping within the STEM theme, we use the light rail train to get us downtown Seattle. An obligatory stop at Pike's market, and then we walked the Pioneer Square to take the Seattle underground tour. Where the old section of Seattle was rebuilt after a great fire. The citizens took the opportunity to re-contour the area. They use hydraulic mining, to wash soil from the hills around downtown, to raise the surface of downtown. Changing the hills from a 35° slope to a 17° slope. This took many years, and residents built new buildings knowing that in 5 to 10 years the second floor would become the main floor.

We walked back towards the center of town and took the monorail (built in 1960) to the space needle. It was a beautiful crystal clear day in Seattle, one of the five days a year they have like this. So we were very lucky to have a perfect day to look out over the city and harbor. Our next stop was the Chihuly Gardens right next door. A very beautiful display inside and outside made from colored blown glass.

Our last full day Saturday started with taking the bus, getting a transfer and taking a second bus to the Museum of flight.



Bob Rapp met us at the Museum of flight, just because he wanted to see it again too. This is a midsize Museum with a wide variety of aircraft and spacecraft. The highlight of the day was a tour of the training shuttle used by astronauts in Houston. The group was allowed to climb inside and be in the exact space that every astronaut who ever flew on a shuttle had once stood. The first 747, " experimental" airliner is outside. The interior is completely open, and you can see how the yolk is connected via cables to control surfaces.

Everyone loved the trip. I would hope that segments of chapter 838 could continue to do trips next year. They don't have to be as far away as Seattle. The father son/ daughter bus trip to Wright-Patterson Air Force Base Museum, is a great experience for young kids. But it is also a fantastic bonding experience for moms and dads too. Even a day and bus trip to Oshkosh to see the EAA Museum, could be revenue neutral, and open up aviation to a wider group of families in the southeastern Wisconsin area.



Supported Programs

Explorer Post 218

By Askley Rodriguez

The visit by David Mann, October 10th was really good and informative. I know I personally learned a lot I didn't know about the airport. David is the Vice President and General Manager of the airport. He told us about how the airport was not originally named Batten Field. He also told us about how they will be adding onto one of the buildings to help the airport be even better. David also told us about the background of the airport. David was very nice and I thank him for coming. He was interesting.

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By Chrissy Kujawa

For our latest meeting on October 24th we visited DeltaHawk Inc. right in Racine! This company creates light, compact diesel engines for a variety of purposes, including aircraft. The first thing we did was watch them fire up one of their engines- a 250 horsepower 300 lb diesel engine that runs on jet fuel. It was very cool demonstration on the engine. Next our group went up and watched a presentation on the company. We learned their journey, the goals, the market and the future of DeltaHawk. The presentation was very interesting and we learned a lot about both the engine and the company. Lastly we went and took a closer look at the demo engine. It was awesome to see how simply built and compact DeltaHawk has made these engines. One only has 400 parts including screws, bolts...etc. The innovative design impressed us all and we all had a great time. It's awesome to see how a local company can impact such a large market. Thank you to Dennis Webb and Stephen Smiley who lead the tour and presentation!

Aviation Explorer Club

See you in spring 2014

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The Celebi Brothers Vs. Gravity

by Seán G. Dwyer

A Muslim friend once explained to me that nothing happened unless it was the will of God. This is why Muslims often add “insha’Allah”, meaning “If it is the will of God,” when describing what they plan to do.

“So, your donkey will not run away unless it is the will of Allah that he do so. Of course, it would do no harm to close the barn door,” Mehmet added with a smile. His Harvard education was showing through. He offered the opinion that this attitude might be why Muslim nations tend to be less developed technologically. A case in point is the Celebi brothers, Hezarafen Ahmed and Lagari Hasan Celebi, who made the first intercontinental flight and the first manned rocket flight 150 years before the Montgolfier brothers and 270 years before the Wright brothers. Why was there no follow-up to their breakthrough flights?

I was doing research on Lagari Hasan Celebi who was famous for being the first survivor of a manned rocket flight. That flight occurred in 1633 AD in the city of Constantinople. Watching that day were Sultan Murat IV, his court, and a few of his wives. Fig 1 shows a model of Celebi’s rocket in the Topkapi Museum.

The Crash & Burn episode of the TV show Myth Busters attempted to replicate Celebi’s rocket flight. A contemporary report said that he attained an altitude of 1,000 feet before descending into the waters of the Bosphorus “on the wings of eagles”. Were these “wings” a parachute or actual wings as in a wing-suit or a hang-glider? That was what I was trying to find out. Unlike modern day wing-suit flyers, who have to deploy a parachute to land safely, Lagari Hasan Celebi planned to land on water. So he had more options to slow his descent after ejecting from the rocket.

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Question from Seán Dwyer on the subject of “Aviation Firsts”

Who made the first intercontinental flight, and in what year did the flight occur?

(Hint: The pilot’s brother also recorded an “Aviation First”)

The answer can be found in Sean’s article “The Celebi Brothers Vs. Gravity”

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Senators demand details on GA stops

Prominent members of the Senate have joined the chorus of voices demanding answers from Customs and Border Protection (CBP) and its parent agency, the U.S. Department of Homeland Security (DHS), about numerous stops and searches of law-abiding pilots on domestic general aviation flights.

In an Oct. 30 letter to DHS Acting Secretary Rand Beers, eight senators, all members of the General Aviation Caucus, raised concerns that the unwarranted stops of general aviation flights are a violation of pilots' Fourth Amendment rights. The letter, spearheaded by Sen. Pat Roberts, R-Kan., and Sen. Jim Risch, R-Idaho, also demands that DHS provide records of all CBP stops of general aviation flights since 2009, including explanations of the "reasonable suspicion" that led to each stop and the "probable cause" that resulted in a search. Those records, the letter insists, should be made available no later than Nov. 15.

While the senators note that they respect CBP and DHS efforts to protect national interests, they add that, "...we wholly disagree with agents demanding access to search an aircraft without reasonable suspicion or probable cause that illegal activity is occurring."

The letter follows months of AOPA attempts to get to the bottom of more than 40 reports of stops and searches by CBP or local law enforcement acting at the agency's request. In each case CBP, which is charged with border security, stopped flights that never left the United States. Pilots report that several of the stops involved drawn weapons and the use of dogs, but in no case did CBP find evidence of criminal activity.

AOPA has filed numerous Freedom of Information Act requests in an attempt to determine under what authority the CBP is stopping purely domestic flights. The association brought the issue to the attention of lawmakers after its requests were ignored or received inadequate responses. The association was also told by a federal agency that in at least one case no record of a search existed although a local law enforcement agency involved was able to produce a record of the incident.

In September, AOPA member Rep. Sam Graves, R-Mo., co-chairman of the House GA Caucus, asked for an Inspector General investigation into the incidents. Later that month, two notices of proposed rulemaking (NPRMs) indicated that CBP wanted to change the status of some of its records, including those related to the stops, to make them secret and unavailable for public scrutiny. The timing of the request and the short period allowed for public comment raised alarm bells.

AOPA asked for an extension to the comment period to give Congress time to complete its investigation, but that request was ignored. It took DHS more than a month to respond to other AOPA questions about the NPRMs, including why CBP chose this time to make its Air and Marine Operations Surveillance System (AMOSS) records secret when the system has existed since 1988. That response was vague, citing national security and law enforcement concerns as the reasons for secrecy.

In addition to Sens. Roberts and Risch, the letter to DHS was signed by GA Caucus Co-Chairman Sen. Mike Johanns, R-Neb., and Sens. James Inhofe, R-Okla., John Boozman, R-Ark., Jerry Moran, R-Kan., Mike Crapo, R-Idaho, and David Vitter, R-La.

"We appreciate Sens. Roberts, Risch and their colleagues stepping forward to protect the Constitutional rights of pilots," said AOPA General Counsel Ken Mead. "Without a reasonable suspicion of illegal activity, a warrant, or probable cause, law enforcement has no business stopping aircraft in the first place, let alone searching and possibly detaining law abiding pilots. We can't afford to have law enforcement agencies that act outside the scope of their authority and then try to hide behind laws designed to protect our national security. They have to be accountable to the citizens they are supposed to serve and today's action is one way to help ensure that accountability."

Automatic traffic

Unmanned 'tower' of the future takes shape in W.Va.

It began when a small airport in mountainous West Virginia, the only nontowered airport in the state with commercial service, failed to convince the FAA to fund a control tower but refused to take "no" for an answer.

"No matter how hard we tried, we just couldn't develop the numbers to justify building a tower," said David Byers, a college professor and airport consultant who has supported many efforts by local officials seeking towers. "Normally that's the end of the story."

In Beckley, W.Va., it sparked a Byers brainstorm, and county officials agreed to pay the first \$75,000 toward an effort with potential to benefit aviators nationwide: developing a radar-based system that can automate traffic advisories, replacing at least one critical function of towers, particularly the smaller contract towers recently placed in cost-cutting crosshairs.

The early (radar) returns proved positive: A portable system provided by a Florida compa-



ny succeeded in tracking an unusually busy airspace when the Boy Scouts of America held their national jamboree about six miles from Raleigh County Memorial Airport in July. Eight Virginia National Guard helicopters came and went, sharing airspace with C-130s and the usual mix of general aviation and commercial traffic that uses the airport. Forty miles north in Charleston, controllers got a look (though controllers were not allowed to use data from the test system for operations) at something they had never seen: a clear picture of air traffic around an airport normally shadowed from their radar screens. There is no FAA radar coverage below 5,000 feet over Beckley.

"You could see aircraft 12 miles out," Airport Manager Tom Cochran recalled of that July test in a telephone interview with AOPA. Black Hawk helicopters were making regular trips between the jamboree and the airport. "That was a real benefit to us, to be able to see where they were."

'It all made sense'

The Synthetic Air Traffic Advisory System that Byers conceived invites comparison to automated weather stations. Instead of a computer-generated voice announcing winds, temperature, and cloud conditions, the synthetic voice would announce radar targets over the radio, and could even be made capable of directing advisories to specific aircraft identified by transponder returns. Aircraft without transponders could still be "painted" on the primary radar. A second radar system able to track surface movements could be added to alert pilots to unsafe runway conditions, such as a deer standing on the centerline.

Off-the-shelf technology would "essentially, provide much of what a good low level contract tower would do," said Byers. "Conceptually, it all made sense."

Byers hopes to raise \$3 million from public and private sources to develop a working prototype.

"That gives us the hardware and the time to develop the software and have it vetted by the FAA," Byers said.

Given the current climate of strident demands for federal frugality within the halls of Congress, neither Byers nor Raleigh County airport commissioners are optimistic the FAA will finance prototype development, though the system drew promises from West Virginia's congressional delegation that funding will be sought, according to local press reports. Byers hopes to find much of the needed funding from the private sector, though "it'll take somebody who can handle the risk."

Byers said the system is both viable, in the sense it can enhance safety when human controllers are not available, and marketable to airports small and large. "Everything that we've seen so far suggests that yes, it's both," Byers said.

The potential market includes both towered and nontowered airports. Byers noted that many control towers are staffed part time, leaving overnight arrivals and departures to see and avoid without radar support. Just as automated weather systems are often turned on at closing time, a tower staff of the future could flip a switch and let the computer take over traffic calls when the tower is closed.

'Looking for alternatives'

Byers estimates that once the technology is developed and tested, an autonomous system could be installed for \$1 million to \$1.5 million per airport, about half the cost of building a manned control tower. A synthetic system could be operated much more cheaply than a manned control tower. Byers estimates that annual maintenance would cost about \$50,000 or less, about one-tenth of the cost of staffing a typical Class D tower for 14 hours a day.

In addition, the radar and other data (such as transponder returns) captured by the automated system can be fed to any number of users, including controllers at other airports, and even pilots in cockpits. Airport managers could use data gathered over time to answer questions about traffic volume over time with precision.

The first step, financed by the Raleigh County Airport Authority, was to verify that a radar system built to track migratory birds (and warn aviators of avian activity that could impact flights) can adapt to track airplanes.

"The demonstration project really gave us the encouragement to go forward," Byers said. "Boy, did this thing work just superb."

The radar, a portable unit on a trailer developed by DeTect of Panama City, Fla., tracked airborne targets that were confirmed by an observer. Another company, PASSUR Aerospace, demonstrated the potential of its own systems to augment the



DeTect's radar provided real-time tracking of aircraft operating around Beckley, W.Va. in July. Image courtesy of David Byers.



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AOPA

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Social 6:30 pm

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primary radar with a Web-based system that combines data from a variety of sensors—including devices that “ping” transponders and can triangulate an aircraft’s position based on the return—into a complete picture of what’s in the air, and what’s on the ground.

While cameras could further augment everyone’s situational awareness, Byers said the system is fully autonomous, and that makes it different from other approaches to “virtual” air traffic control that pipe radar and camera signals to a remote, human controller.

The one thing the synthetic system won’t do that a manned tower will is suggest a course of action to resolve a traffic conflict. While software can be written to identify a potential collision, be it in the air or on the ground, FAA regulations and liability issues preclude suggestions by the computer. It may still prove the best option left for many airports: Byers suspects many of the contract towers currently serving airports around the country will be empty sooner than later.

“I feel I’ve got a window of about two years. That’s when the towers are going to really start shutting down,” Byers said. “People are going to be looking for alternatives.”

Byers has worked with upward of 70 airports over the past 15 years, analyzing data and making a case to install or retain control towers. When the FAA announced in March plans to close 149 contract towers (a decision later reversed), Byers calculated the cost: 101 aircraft destroyed, 216 lives lost, and \$2.5 billion in net loss in the first six months. Byers said he arrived at those figures using the FAA’s own cost/benefit analysis methodology.

While the towers were spared, this time, Byers, who is also a pilot and longtime AOPA member, believes their days are numbered. Even if the current towers survive, airports like Raleigh County Memorial seeking new towers will find the sledding tough.

“My sense is that nobody wants to grow the program any further than it’s already gone,” Byers said of contract towers. “I hope I’m wrong.”

Cochran said he was “much impressed” by the July demonstration, and local officials may extend further financial support beyond the \$75,000 already provided in the interest of finding a solution that could serve many.

“We’d like to see Beckley as the lead on this,” Cochran said. “We initiated it. We had the interest. We took the risk. This system would not only serve Beckley, but other places across the country that have the same issues that we have.”

Radar coverage that begins 5,000 feet above the field thanks to mountainous terrain currently

limits IFR arrivals and departures to “one in, one out” and can discourage business and commercial traffic that Raleigh County hopes to attract. Beyond serving the massive Boy Scout facility, the county is actively marketing a pair of industrial parks flanking the airport.

“We want to be able to be an airport that can be utilized by everyone,” Cochran said, noting both business and commercial operators would probably be less reticent to use the airport if traffic advisories were available. “A lot of corporate aviation will not fly into an uncontrolled field.”

Byers said there are technical issues to be worked out, such as writing the algorithm that will allow the system to recognize potential conflicts and trigger advisories, but he is confident that with funding, the system could be available for airport use before time runs out on the towers.

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FAA Safety Team

How Much Fuel Do You Have?

Notice Number: NOTC5020

Fuel Starvation and Exhaustion are still causal factors in many General Aviation Accidents. Fortunately, a large selection of fuel totalizing and monitoring options are available to help you prevent these very preventable accidents. But, technology only helps when pilots apply it consistently and correctly. Follow these three simple steps to avoid becoming a fuel accident statistic:

-Whether you're "sticking the tanks" or relying on cutting edge fuel management software, know how much fuel you have on board before each takeoff. If you have a fuel management system on-board, make sure you program it with accurate information before Every Flight.

-Know how much fuel you plan to burn and how much fuel you're burning. If you don't have on-board equipment to answer this question, calculate your fuel burn before each flight and confirm your calculations each time you refuel. Comparing your actual fuel burn to your calculated fuel burn will give you confidence in your fuel planning and you can often uncover fuel leaks or other small problems before they become big ones.

-Finally, make a commitment to join the many pilots that have a personal minimum not to land with less than one hour's fuel in the tanks. This will exceed any regulatory reserve fuel requirements and you'll never be anxious about pushing your fuel.

For more information contact Kevin Clover, FAA AFS-850. kevin.l.clover@faa.gov

"Certified Flight Instructor (CFI) Practical Test Preparation Clinic"

Topic: CFI Practical Test Preparation Clinic
On Friday, November 8, 2013 at 8:00 AM
Location:
Fox Valley Technical College - Oshkosh, WI
3601 Oregon Street

Oshkosh, WI 54903,

Select Number: GL1352298

Description:

Comprehensive & Interactive Certified Flight Instructor (CFI) Practical Test Preparation Clinic Certification Outreach Forum Conducted By FAASTeam & FAA Aviation Safety Inspectors Sponsored By The FAA Milwaukee Flight Standards District Office (GL-13 FAA MKE-FSDO)

The sponsor for this seminar is: FAA MKE-FSDO/FAASTeam

The FAA Safety Team (FAASTeam) is committed to providing equal access to this meeting/event for all participants. If you need alternative formats or services because of a disability, please communicate your request as soon as possible with the person in the 'Contact Information' area of the meeting/event notice. Note that two weeks is usually required to arrange services.

The following credit(s) are available for the WINGS/AMT Programs:

Advanced Knowledge 1 - 1 Credit

Advanced Knowledge 2 - 2 Credits

Master Knowledge 1 - 1 Credit

"Wis DOT Flight Instructor Refresher Course"

Topic: Two Day CFI Renewal Course
On Saturday, November 9, 2013 at 7:00 AM
Location:
FAA Safety Center, Wittman Regional Airport
3130 Knapp Street

Oshkosh, WI 54902
Select Number: GL1352369

Description:



This WisDOT CFI Refresher Clinic (FIRC) is an FAA Approved 2-day interactive course that meets the FAA requirement for the renewal of your CFI. There is a fee for this event, please see Additional Seminar Information below.

The sponsor for this seminar is: MKE FSDO FAASTeam

The FAA Safety Team (FAASTeam) is committed to providing equal access to this meeting/event for all participants. If you need alternative formats or services because of a disability, please communicate your request as soon as possible with the person in the 'Contact Information' area of the meeting/event notice. Note that two weeks is usually required to arrange services.

The following credit(s) are available for the WINGS/AMT Programs:

Basic Knowledge 1 - 1 Credit

Basic Knowledge 2 - 1 Credit

Basic Knowledge 3 - 1 Credit

Advanced Knowledge 1 - 1 Credit

Advanced Knowledge 2 - 2 Credits

Master Knowledge 2 - 2 Credits

Master Knowledge 1 - 1 Credit

Cockpit Concepts

Adopting "Best Practices" Part I

By Robert M. Jenney

The term "best practice" is used throughout industry and government. In fact, the requirement to adopt such practices is written into quality management standards (with the inevitable by-product of consultant specialists). In aviation, IS-BAO itself is described as "a code of best practices designed to help flight departments worldwide achieve high levels of safety and professionalism." But today's topic is more about how a functioning Safety Management System's procedures might be positively influenced by considering the practices that others have put to use.

What is a best practice? From Wikipedia: "A technique or methodology that, through experience and research, has proven to reliably lead to a desired result." This source concludes, "a commitment to using the best practices in any field is a commitment to using all the knowledge and technology at one's disposal to ensure success." All well and good, but the term itself is open to criticism—if it is "best" does that mean it can't be improved? And, to some, the process of taking someone else's work as your own to solve your problems stifles creativity and may not lead to the most desired outcome.

So, let's not be literal but, instead, think in terms of a "smart practice" or "proven practice" that can be continually reevaluated and improved over time. Also, in aviation at least, there is no list of best practices or pre approved solutions. Through networking, sharing, searches and research you will learn of problem solving methods that other operators have incorporated into their management systems. Certain details may not be available and not all aspects will fit, but the concepts and ideas can be adopted and perfected into a practice that works well in your operation. That practice will then be yours; you will own it.

A quick trip to Skybrary (<http://www.skybrary.aero>) will provide examples of operational and training processes that, with the references cited, might be adopted and form the basis for some best practices. Communication discipline, preventing runway incursions, fatigue policies, avoiding CFIT are examples of the many topics that are treated. All good stuff; however the broad subject matter contained in the SMS protocols cannot be found at any one source.

Suggestions and additional references will be provided in a future issue of SMS Perspectives. Hopefully, these may be helpful in adopting aviation best practices and evaluating their effectiveness. As always, comments and ideas are welcome—this readership will benefit from your experiences in improving your SMS policies and procedures.

NBAA

AirMail

Topic: Expired Aircraft Registration

Today, I had a client come in who had reserved a vanity N number and used that number recently when the aircraft was repainted. The FAA processed the registration, but he didn't realize that the Airworthiness also needed to be changed. (91.203)

I happen to be aware of an individual who is in this position. The registration has lapsed. He can't lease his plane back to the local flight school, so he's dead in the water. Most likely his own fault for being slow to re-register.



NOTAMS

If there's nobody there to see the violation did the violation actually occur? Kind of on the same plane as if a man says something and there's no woman around to hear him is he still wrong? Both valid questions that will probably both get me in a lot of trouble.

There is a serious side to that question. If you are operating any aircraft contrary to law, then an accident may be your undoing. There are "insurance" claim issues, "criminal" issues, and "licensing" issues.

I believe Mr. Xxxx caught the humor and was simply bringing up the serious side to it but mine was a 100% joke. For anyone tragically born without a sense of humor of course it's still against the law.

Well, as you know, because of the current situation, the local FSDO can't change the Airworthiness Certificate. His attitude is; Heck, the plane was airworthy before, and it's airworthy now; all they did was paint and re-number the plane. Just because I can't swap out the paperwork doesn't make the plane unairworthy, and anyhow, it's the governments fault because the FSDO would give me any appointment to get a new airworthiness Cert, he says.

It's hard to argue with the logic of that.

Well, actually, it may be logical, but it's also illegal.

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Regrettably you weren't 100% joking. Some people operate aircraft believing that if nobody catches their illegal behavior, then it's ok.

Take for example those who are part 91 but run as a Part 135 business, sometimes called a Part 134 1/2 operation.

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A Temporary Registration is good for 90 days isn't it. Send in your registration application and your 5 bucks and use the pink slip.

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Yes, it is 90 days and that might be an excellent workaround based on current circumstances.

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Hold on everybody .. I'd hate to lead someone down the wrong path. (And for the life of me, I cannot believe I am disagreeing with Mr. Xxxx on this one!)

If we are talking about the requirement to re-register an aircraft and not register one due to transfer of ownership, you CANNOT use the pink slip. I'm looking for a document to prove what I'm saying ... but you cannot use a pink slip to re-register an aircraft.

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You are correct! IF the current registration is expired, you cannot fly the aircraft at all until the reregistration is valid, THEN you can do the sale and run on the pink temp.

The rub comes in that the old registration is expired and therefore the tail number is or could be invalid if someone else has jumped in and reserved it for another aircraft while you were "asleep at the switch".

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Currently working this very issue only 2 aircraft, one of which the sale closed in Sept., but since the registration had expired, we were told we couldn't fly the aircraft till we received a valid registration with the same tail number.

I inquired about changing the tail number, and getting a fly wire to bypass/ short cut a long wait (approx 45 days), to start running the aircraft. The potential end run was blocked, we were expecting one registration on Oct 10 and the other on Oct 11 th.

Who can say when it will get here now.

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Along those same lines, our small 2 pilot/ one airplane 135 operation will have both pilots needing 135.297 rides in November. Wonder how that schedule will play out?

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Mike, Wayne sent me an FAA document that specifically stated you could not use the temporary registration process (I am paraphrasing here) for re-registration purposes or once the hard card has been issued. I think that was pretty clear. However, under the current circumstances I am wondering what will be acceptable. We have gone from sequester to a government shutdown and if that does not end soon we are going to be faced with economic challenges, which could very well put our industry in crisis mode. While I always try to stay as far from politics as possible, where is the leadership here?

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I read the same one. While I'm not saying it is incorrect, what my question is where exactly is the reg that states this or is it an interpretation by OKC and therefore open to further interpretation if and when they are allowed back to work. Does anyone have a temp handy they can see if it expressly forbids it?

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Here is the chapter and verse for what you were looking for Mike:

When aircraft registration has ended as prescribed by §47.41 (e.g., expiration, destruction, etc.) the assignment of an N-number is no longer authorized for use. (The exception remains for the 90 day temporary operating authority of the second, or "pink," copy of the Aircraft Registration Application, following ownership transfers under §47.31(c)).

Wikipedia

Future Air Navigation System

The Future Air Navigation System (FANS) is an avionics system which provides direct data link communication between the pilot and the air traffic controller. The communications include air traffic control clearances, pilot requests and position reporting.[1] In the FANS-B equipped Airbus A320 family aircraft models, an Air Traffic Services Unit (ATSU) and a VHF data radio (VDR3) in the avionics rack and two data link control and display units (DCDUs) in the cockpit enable the flight crew to read and answer the controller-pilot data link communications (CPDLC) messages received from the ground.[2]

Overview of FANS

The world's Air Traffic Control system still uses components defined in the 1940s following the 1944 meeting in Chicago which launched the creation of the International Civil Aviation Organization (ICAO). This traditional ATC system uses analog radio systems for aircraft Communications, Navigation and Surveillance (CNS).

Air traffic control's ability to monitor aircraft was being rapidly outpaced by the growth of flight as a mode of travel. In an effort to improve aviation communication, navigation, surveillance, and air traffic management ICAO standards for a future system were created, this integrated system is known as the Future Air Navigation System (FANS) and allows controllers to play a more passive monitoring role through the use of increased automation and satellite based navigation.

In 1983, ICAO established the special committee on the Future Air Navigation System (FANS),

charged with developing the operational concepts for the future of air traffic management (ATM). The FANS report was published in 1988 and laid the basis for the industry's future strategy for ATM through digital CNS using satellites and data links. Work then started on the development of the technical standards needed to realize the FANS Concept.

In the early 1990s, the Boeing company announced a first generation FANS product known as FANS-1. This was based on the early ICAO technical work for automatic dependent surveillance (ADS) and controller-pilot data link communications (CPDLC), and implemented as a software package on the flight management computer of the Boeing 747-400. It used existing satellite based ACARS communications (Inmarsat Data-2 service) and was targeted at operations in the South Pacific Oceanic region. The deployment of FANS-1 was originally justified by improving route choice and thereby reducing fuel burn.

A similar product (FANS-A) was later developed by Airbus for the A340 and A330. Boeing also extended the range of aircraft supported to include the Boeing 777 and 767. Together, the two products are collectively known as FANS-1/A. The main industry standards describing the operation of the FANS-1/A products are ARINC 622 and EUROCAE ED-100/RTCA DO-258. Both the new Airbus A380 and Boeing 787 have FANS-1/A capability.

ATC Services are now provided to FANS 1/A equipped aircraft in other Oceanic airspaces, such as the North Atlantic. However, although many of FANS-1/A's known deficiencies with respect to its use in high density airspace were addressed in later versions of the product (FANS-1/A+), it has never been fully adopted for use in continental airspace. The ICAO work continued after FANS-1 was announced, and continued to develop the CNS/ATM concepts. The ICAO standard for CPDLC using the Aeronautical Telecommunications Network (ATN) is preferred for continental airspace and is currently being deployed in the core European Airspace by the EUROCONTROL Agency under the LINK2000+ Programme. Mandatory carriage of the ICAO compliant system is now the subject of an Implementing Rule (for aircraft flying above FL280) issued by the European Commission. This rule accommodates the use of FANS-1/A by long haul aircraft. All other airspace users must be ICAO compliant.

Several vendors provide ICAO ATN/CPDLC compliant products. The Airbus ICAO compliant product for the A320 family is known as FANS-B. Both Rockwell Collins and Honeywell provide ICAO compliant products for Boeing aircraft, such as the Boeing 737 and 767, and the Boeing 787 will also support ICAO ATN/CPDLC compliant communications. The main standards describing the operation of ICAO compliant products are the ICAO Technical Manual, ICAO Docs 9705 and 9896, Eurocae ED-110B/RTCA DO-280B and Eurocae ED-120/RTCA DO-290.

Background



Aircraft are operated using two major methods; positive control and procedural control.

Positive control is used in areas which have radar and so is commonly referred to as **Radar control**. The controller “sees” the airplanes in the control area and uses VHF voice to provide instructions to the flight crews to ensure separation. Because the position of the aircraft is updated frequently and VHF voice contact timely, separation standards (the distance one aircraft must be separated by another) is less. This is because the air traffic controller can recognize problems and issue corrective directions to multiple airplanes in a timely fashion. Separation standards are what determines the number of airplanes which can occupy a certain volume of airspace.

Procedural control is used in areas (oceanic or land) which do not have radar. The FANS concept was developed to improve the safety and efficiency of airplanes operating under procedural control. This method uses time-based procedures to keep aircraft separated. The separation standard is determined by the accuracy of the reported positions, frequency of position reports, and timeliness of communication with respect to intervention. Non-FANS procedural separation uses Inertial Navigation Systems for position, flight crew voice reports of position (and time of next waypoint), and High Frequency radio for communication. The INS systems have error introduced by drifting after initial alignment. This error can approach 10 nm (19 km). HF radio communication involves contacting an HF operator who then transcribes the message and sends it to the appropriate ATC service provider. Responses from the ATC Service Provider go to the HF radio operator who contacts the airplane. The voice quality of the connection is often poor leading to repeated messages. The HF radio operator can also get saturated with request for communication. This leads to procedures which keeps airplanes separated by as much as 100 nmi (190 km) laterally, 10 minutes in trail, and 4,000 ft (1,200 m) altitude. These procedures reduce the number of airplanes which can operate in a given airspace. If market demand pushes airlines to operate at the same time on a given route, this can lead to airspace congestion, which is handled by delaying departures or separating the airplanes by altitude. The latter can lead to very inefficient operation due to longer flying times and increased fuel burn.

ATC using FANS

The FANS concept involves improvements to communication, navigation and surveillance (CNS).

Communication improvements

This involved a transition from voice communications to digital communications. Specifically ACARS was used as the communication medium. This allowed other application improvements.

An application was hosted on the airplane known as controller–pilot data link communications (CPDLC). This allows the flight crew to select from a menu of standard ATC communications, send the message, and receive a response. A peer application exists on the ground for the Air Traffic Controller. They can select from a set of messages and send communications to the airplane. The flight crew will respond with a WILCO, STANDBY, or REJECT. The current standard for message delivery is under 60 seconds one way.

Navigation improvements

This involves a transition from inertial navigation to satellite navigation using the GPS satellites. This also introduced the concept of actual navigation performance (ANP). Previously, flight crews would be notified of the system being used to calculate the position (radios, or inertial systems alone). Because of the deterministic nature of the GPS satellites (constellation geometry), the navigation systems can calculate the worst case error based on the number of satellites tuned and the geometry of those satellites. (Note: it can also characterize the potential errors in other navigation modes as well). So, the improvement not only provides the airplane with a much more accurate position, it also provides an alert to the flight crew should the actual navigation performance exceed the required navigation performance (RNP).

Surveillance improvements

This involves the transition from voice reports (based on inertial position) to automatic digital reports. The application is known as ADS-C (automatic dependent surveillance contract). In this system, an air traffic controller can set up a contract with the airplane navigational system to automatically send a position report on a specified periodic basis (such as every 5 minutes). The controller can also set up deviation contracts which would automatically send a position report if a certain lateral deviation was exceeded. This contracts are set up between ATC and the aircraft systems. The flight crew has no workload associated with this set up.

FANS procedural control

The improvements to CNS allow new procedures which reduce the separation standards for FANS controlled airspace. In the South Pacific, they are targeting 30/30 (this is 30 nmi (56 km) lateral and 30 nmi (56 km) in trail). This makes a huge difference in airspace capacity.

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Racine EAA Chapter 838

The People

Meetings
Third Thursday's 7:00 pm
Social 6:30 pm

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Welcome

New Chapter Members

Rebecca Schmitt	September 2013
Bill Myers	June 2013
Bill Schalk	June 2013
Michael Ratchford	May 2013
Merritt Adams	Feb 2013
Michael Arts	Feb 2013

EAA Chapter Distribution

Chapter 18	Milwaukee
Chapter 217	Kenosha
Chapter 414	Waukegan
Explorer Post 218	Racine
Steve Hedges	AOPA

Sean's Answer

N/A

Monthly Meetings

Boards Meetings	Second Thursdays	7:00 pm
Chapter Meetings	Third Thursdays	
	Social	6:30 pm
	Meeting	7:00 pm
Shop Night	Every Monday	7:00 pm
Explorer Post 218	Second Thursdays	7:00 pm
	Fourth Thursdays	7:00 pm
Young Eagles	Second Saturday	9:00 am
	(March - November)	

Upcoming Meetings & Speakers

Nov 21 st	Eric Whyte	<u>History of The AirVenture Cup Races</u>
Dec 6 th		<u>Christmas Party</u>
Jan 17 th		
Feb 21 st		
Mar 21 st		
Apr 17 th		
May 15 th		
Jun 19 th		
Jul 17 th		
Aug 14 th		
Sep 18 th		
Oct 16 th		

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