



Freeman Flash

NEWSLETTER of the FREEMAN FIELD
FLYING ASSOCIATION

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Larry Bothe, Editor

Website: www.freemanfield.org

2020 Runway Work Plan Revealed

At the airport authority meeting on 10/21, BF&S (engineering) representative Paul Shaffer explained to the board the 3 phases of runway construction to take place next year. This work is for the purpose of moving runway 5/23 1000 feet to the southwest in order to provide clearance away from the new Burkhart Blvd. bypass around the south side of Seymour.

Phase 1, 90 days, to begin whenever the weather permits (ground dries up enough to dig, probably early April): *Runway 5/23 will be closed for the entire 90 days.* Runway 14/32 will be open, full-length, during all of Phase 1. It is necessary to close 5/23 because work will be done on both ends simultaneously. On the NE end, the first 500 feet of runway will be removed. The next 500 feet will be remarked as displaced threshold, and designated as a jet-blast area. A new connector will be constructed from the parallel taxiway out to the new runway 23 threshold, now moved 1000-feet to the SW. On the other end, 1500 feet will be added to the SW end of the runway, and a parallel taxiway constructed adjacent to the 1500-foot extension.

Phase 2, 15 days, to begin when Phase 1 is completed: Runway 5/23 remains closed.

Runway 14/32 is temporarily reduced to 4000 feet (threshold of rwy 32 displaced 1500 feet). During this roughly 2-week period, the extension of runway 5/23, where it touches 14/32, will be constructed, and some taxiway connection work completed.

Phase 3, 15 days, begins when Phase 2 is completed: Runway 5/23 open, to the new full 6000-foot length. *Runway 14/32 closed* in order to complete the taxiway work at the southeast end. Note that there may be an option to displace the threshold of 32 an additional 100 feet or so during Phase 2, and that slightly longer displacement could allow 14/32 to remain open, at the reduced length, during Phase 3.

The entire project is expected to take 120 days. It will begin in the spring, and go well into summer. Think April-May-June-July. Paving construction is very weather dependent. If it's a wet spring, and/or it rains a lot during the construction period, it will take longer than 120 days. If it dries up early, and it doesn't rain very much, they will start sooner and be finished in less time.

Other Airport News

The **Star Party** (celestial observation activity) held on September 28th was a

moderate success. 60 to 75 people attended. Don Furlow said the Louisville Astronomical Society will probably want to do it again next year. Some thought is being given to moving the activity from the center taxiway, over to the remote-control model aircraft flying area. That would eliminate the need to close the airfield. The museum was open at 5:00PM for early-arriving star-gazers. However, the first visitor didn't come into the museum until 6:45, and there were only a few visitors. Next year the museum would likely open at 6:30.

A representative from the **Indy Air Hogs** (powered para-glider group) attended the airport authority meeting. IAH had previously asked the authority to hold a fly-in at Freeman Field in 2020. The rep asked the authority for the specific dates of September 10th through the 13th. Don Furlow replied that the rep should call him in 3 or 4 weeks. By then Don will have a better idea of other activities and dates, and he will be able to discuss specific fly-in dates with IAH.

Member Accomplishments

Jimmy Baker (Cherry Hill mechanic) passed his private pilot knowledge test on 10/22. Now he just needs to brush up and go take the checkride. **Kevin Murphy** (another Cherry Hill mechanic) started taking flying lessons with instructor **Greg Browning**. **Larry Bothe** announced an air show. See article on page 4.

FFFA Meeting News

The educational presentation for our **September meeting** was on the subject of night flight. It included a review of night rules and currency, and both aircraft and airport lighting. Night risk management was also discussed.

The topic for the **November meeting** (Nov. 14th, 7:00PM, at the museum) will be owner-performed preventative maintenance. We'll talk about what you can and can't do, and discuss a 2009 FAA legal interpretation that

substantially changed the scope of owner-performed maintenance.

Our **Christmas dinner and annual meeting** will be held on Wednesday, December 11th, at The Pines restaurant (same place as last year). Also, same schedule: Cocktails (cash bar) at 6:00, eat at 7:00, brief business meeting at 7:45, followed by a door prize raffle and socializing. Out of there by 9:00. The cost is \$15 per person, payable during the cocktail hour. Dues can also be paid at that time. Guests are welcome and encouraged.

Museum Archives

News of the Freeman Army Airfield Museum



The Freeman Army Airfield Museum is a completely separate entity from the Freeman Field Flying Association. Some of our board members (L. Bothe) overlap. The FFFA on occasion supports the museum with gifts of money for worthy projects.

FMI www.freemanarmyairfieldmuseum.org.

The 2-month long examination of museum files and stored items has been completed. Our files are now much better organized. Old, useless items, both papers and other physical items, have been either sent to other museums or recycled. Some items are being given away via a Free Stuff table in our lobby. The final finishing touch to the clean-up was facilitated by the donation of flat-file cabinets by attorney Jeff Lorenzo. We can now properly store and protect our drawings, large photos, and posters. Thanks, Jeff.

We still need a volunteer to take care of our library. A few hours a month would do it. Surely somebody out there would like to help us with this worthy project.

Finally, just in time for the fall rains, the City installed a slit drain at the end of our sidewalk. We no longer have a 3-inch deep puddle to wade through every time it rains. It's nice to live and work in a city that gets things done.

LSC Glider News

A Day in the Life of a Tow Pilot

By Bob Walker (OB1)

The tow pilot is a key person in LSC (Louisville Soaring Club). The pilot typically arrives prior to noon and helps extract the 180-hp Bellanca Scout from the tightly packed hangar. Once the Scout is out on the ramp, the tow pilot performs a thorough preflight inspection. This includes a test of the tow hooks and a visual inspection of the entire length of the tow rope and rings.

After the preflight, and sometime prior to the first tow of the day, the he meets with the glider pilots to discuss the best runway to use. The pilots consider wind and power traffic pattern as primary factors in the decision; safety and minimal impact to the power aircraft is a top priority at LSC. The tow pilot and individual glider pilots will also discuss preferred towing speeds and release point.

The midpoint of runway 14/32 is the preferred area for glider operations. In very rare instances involving strong southwest winds, runway 23 has been used. During all operations, the tow pilot will monitor and report his position and intentions on 122.8. Tow pilots are aware that power aircraft departing Runway 23 are not visible to the glider staging area. For this reason, tow pilots will delay operations until a power aircraft has safely departed 23. Timely radio communication is key to a safe operation.

Once airborne, the tow plane and glider usually climb to the west of the field. At a safe altitude, and clear of all pattern traffic, the flight of two will often turn toward the airport and pass overhead. Most gliders release between 2,000 and 3,000 feet AGL. After release, the tow pilot monitors the traffic situation and heads back to the field, landing on 14 or 32.

Power pilots should know that the tow pilot is the best source of general information for glider activity. Don't hesitate to initiate a

radio call and ask about glider activity – the tow pilots are eager to give an operations report. As you can see, the tow pilot's job involves much more than launching a glider. The tow pilot is key to a safe and efficient operation.

Airliner Performance, Part III

By Adam Springmeyer

Hello FFFA Members, and welcome to October of 2019. This newsletter was started when I was sitting in Indianapolis during my annual ground school session. It felt good to be back in the state that I will always call home. The remainder of the article is being written while sitting between flights at Miami International (MIA) before operating a flight to Atlanta Hartsfield-Jackson (ATL.)

This month we will wrap up airliner performance, and discuss the engines for the ERJ-170-100/200. During my initial training in the C-172 Skyhawk I had to memorize some basic information about the engine. I still remember the acronym "L-HAND," (L-Lycoming, H-Horizontally Opposed, A-Air Cooled, N-Normally Aspirated, D-Direct Drive, 160hp) when describing that to our editor (my Private Pilot Examiner) many years ago. In the airline world, nothing has changed. We still have to memorize some basics about the engines we use every day.

On the ERJ-170-100/200 we have 2 Pratt and Whitney CF-34-8E5 turbofan engines. This engine is able to produce up to 14,200 lbs. of thrust. It has a maximum operating temperature of 1002°C during Go-Around Reserve Thrust mode, with a normal operating temperature of 920°C, and a maximum start temperature of 880°C. The temperatures are monitored from the cockpit on the EICAS (Engine Indication and Crew Alerting System) display.

What some people may not know is that when an airline buys a brand-new airliner, they are not buying the engines or the APU. For your price tag of approximately \$75 million (ERJ-170 cost), an airline gets all the

instrumentation, galleys, and the shell. The engines are leased, not purchased. The airline has a choice of who they want to lease the engines and the APU from. To the airlines, this makes more financial sense. Under a lease, the basic maintenance (adding oil, oil changes, fan blade replacement, etc.) is done by that airline's mechanics. Heavy maintenance of the engine, rebuilding, swapping, tear down, etc. is done by the lessor, and can be very costly.

Airlines are in the business to get our customers from point A to point B in a *safe*, and *timely* manner. This of course earns them money. In order to keep more money in their pockets, and not pay for expensive unwanted maintenance, fines, and fees; airlines will try to reduce unexpected maintenance costs wherever they can. On most airliners, the airline sets up a contract that if an engine is returned to the lessor, and it shows just normal wear and tear, then the lessor gives the airline a discount for the life of the engine, or any additional engines used from that company. There can also be other perks negotiated during the contract. To that end, we don't want to use 100% of the available power on an engine unless absolutely necessary. Using max power burns more fuel, increases noise around the airport (incurs fines), and decreases the time between engine maintenance cycles. All these things cost a lot of money.

This is why most airlines "Flex" the takeoff power on the engine. "Flexing" the engine power reduces the total thrust output, and decreases the internal operating temperature. This increases the lifespan of the engine, and reduces the chance the engine could overheat. This process is done by "fooling" the engine to thinking that the temperature that is inputted by the pilots is the correct temperature and not the actual temperature outside. Most of the time we input a higher temperature (40°C - 45°C), which tells the engine not to add as much fuel to the hot air. This reduces the fuel used, reduces the total thrust during takeoff, and

keeps the temperature within a safer envelope.

Example #1 - We were operating from Pittsburg International going to Miami. The runway that we were using was 11,400 feet long. The OAT Temperature was 4°C. We told the engine that it was actually 40°C. We used about 6,000 feet of the runway to takeoff, but still had more than enough to clear all obstacles, and stop on the same runway if necessary. Our thrust for this flight was about 88.4% of the 14,200 lbs. per engine.

Example #2 - I was leaving Newark (EWR) and heading to Kansas City (MCI) a few weeks ago. There was Low Level Wind Shear (LLWS) being advertised on the ATIS. In this case, we want all available power, so we did NOT "Flex" the engine power.

"Flexing" is not always used, but is a great tool to get the required performance of the airplane, but still keep the airplane, passengers, and crew safe.

Thanks for reading my article. If you have any questions that you would like to have answered, please email me at adam.springmeyer@gmail.com. Fly Safe, and Blue Skies.

Amateur Airshow Announcer

By Larry Bothe, 10/16/2019

It's Amateur Hour. Larry Bothe announces an air show. Huh? How did that happen? Well, as usual, it's the FAA's fault. Here's the story.

We all know about the big, "world class" airshows; like EAA-Oshkosh, Sun 'n Fun, Chicago Air & Water Show, etc. National demonstration teams, like the Blue Angels, Thunderbirds or the Snowbirds, perform. But there are also smaller local air shows all over the country, every weekend. One such show is the annual Madison (Indiana) Air Show, held the last weekend in September every year at Madison Municipal Airport, KIMS. This year it was on September 28th. Admission and parking are free and food is inexpensive.

They ask for donations but they aren't pushy. It's a low-cost family activity for the good people of Madison and surrounding communities.

As you can imagine, there are FAA rules for putting on an air show. All air shows have an Air Boss. The Air Boss is responsible for the air safety of the show. He or she does the safety briefing for the aerobatic pilots and coordinates with the FAA representatives onsite. (The FAA almost always sends inspectors to air shows, but they pass on fly-ins, where no aerobatics will be performed.) The Air Boss is also responsible for closing the airfield during the show, and clears each "act" for takeoff and landing. Finally, he or she makes sure that the performing airplanes are far enough away from the spectators, based on the speed-class of the airplane. The minimum distance is 500 feet. Easy-to-see markers (orange/white road barrels work well) are set up for the pilots at the various distances. The Air Boss makes sure the spectators do not stray across the crowd line during the performance, so the set-back distance is maintained at all times. Air Bosses go to seminars to learn these requirements in detail, and are certified to perform their function. The point of all this is that the Air Boss is a very busy person and has an enormous amount of responsibility for public safety.

And therein lies the problem, and created the opportunity for me to try my hand at air show announcing. You see, the Air Boss is usually a friend of the home-town aerobatic performer, and very often serves as the announcer, in addition to being Air Boss. The FAA, however, has decided that announcing is too distracting from the Air Boss' otherwise demanding safety duties, and wants to split the announcing function away from Air Boss. For 2019 the rules are not yet firm, but in the interest of enhanced safety, Madison decided to do the split this year. The FAA has strongly hinted that for 2020, the split will be required. All of a sudden Madison needed an announcer, and they put out the word,

looking for a volunteer. Since I know both the headliner aerobatic performer, Cliff Robinson, and his long-time announcer/air boss, Tom Spielmann, I answered the call. I have worked with them both in times past, and it sounded like fun. I do a lot of public speaking. How hard could it be?

I flew in around 10:30 in the morning so I would have time to find out what was expected of me, meet the participants, and attend the safety briefing. The show was scheduled to start at 1:00PM. There was already a good-quality public address system set up, playing music, when I arrived. I stood at the table, staring at the system and looking stupid, until a person walked over and asked if I needed help. That got me a briefing on sound, and where some other people I needed to see were located.

The sound guy pointed out two gentlemen who were the FAA inspectors. I went over and introduced myself. The FAA presence at air shows is typically low-key. They aren't there doing ramp checks or looking for nit-picking little problems to hassle people with. Rather, they are there to ensure that overall public safety is being served, and that there aren't any hot-dog pilots endangering everybody else. From the FAA inspectors I learned that the safety briefing for the air show pilots, first responders, FAA, and other interested parties, would be held at noon.

The briefing was conducted by the Air Boss (Tom Spielmann). He started with self-introduction by all the participants. The performers told who they were, where they were from, and what kind of airplane they would be flying. Tom emphasized that safety would be the order of the day. He explained the location and description of the ground distance markers, and reviewed which airplanes, classed by speed, would have to stay outside of which sets of markers. There was a private home that pilots needed to avoid as they flew their routines.

One interesting thing I had not thought of was that each performing pilot had a sheet

with him explaining how to get him out of the wreck in the event of an accident. They are called Extraction Instructions. The instructions were collected from each pilot and given to the emergency first responders, who were also in the briefing. There were 7 different types of airplanes flying in this show, and each has a different means of egress (normal doors, sliding canopy, gull-wing doors, etc.), and each one can be forced open or broken into in a different manner. I got a look at the instructions. Some were very basic, like smash a window and yank open the door, but others were detailed, telling where to pry and giving several alternatives.

Since I now had all the performers in one room, I endeavored to get information about each one, for the purpose of introducing them as their act began. Only about half had information sheets with them, and there was no time to conduct an interview. I would just have to wing it for the ones without printed PR information. After the briefing I got a quick bite to eat, and then it was show time.

The first glitch happened immediately. As I took my position at the sound system table, the Air Boss came up to me and said "OK, you can play the national anthem now. Blank stare. Huh? What? I had not thought about me being responsible for playing the *Star-Spangled Banner*. But there, just off to my right, was the color guard, 4 men in uniform, with flags and parade rifles, waiting. Then the sound system person walked up to me, but instead of calling the anthem up on the iPod he was using for music, he said "hang on a minute". Then, out of the crowd, a young man in jeans and a T-shirt walked up to me and said "I'll do the anthem". I quickly, off mic, asked him his name, introduced him, and handed him the microphone. The guy could sing! He performed a very credible a-cappella rendition of the *Star-Spangled Banner*. The crowd applauded, and we were off.

I was provided with a list of the order in which the acts would fly. In some instances, I knew the pilot and/or recognized the type of airplane. My airplane partner, Frank LaGreca, was there assisting me. He put the few information sheets I had in order with the performer list, and kept track of the other pieces of paper people handed us. He also interfaced with the people who came up the announcer's station and wanted something. I couldn't always stop talking on the mic whenever somebody walked up, so having an assistant was a big help.



Larry Bothe (left) and Frank LaGreca, announcing the Madison Air Show. Photo by Chris Fowler.

One of the things I was asked to do was publicly thank the sponsors who gave money to help put on the air show. I was handed a list of who to thank, mostly companies. When I had a break in announcing acts and talking about the planes and pilots, Frank handed me the Thank You list. I started to thank the supporters, but soon found out that the list was written in abbreviations. The companies were listed just by initials, and, not being from Madison, I didn't recognize most of them. After stumbling with a couple of the names, I apologized to the crowd and said I would return to thanking sponsors later in the show. Frank went and found the airport manager, who in turn created a list with written-out company names, and brought it to us. In the end everybody got properly thanked, but at the outset I was standing there with my lips flapping.

The hardest thing I tried to do, and failed rather badly, was to keep up with, and announce, the maneuvers a performer was flying, in real time. Even when I had a maneuver list from the performer, I still got lost. The pilots don't always fly their routine in the order on the list, and I don't recognize many of the maneuvers for what they are. Then the pilots name their maneuvers in a non-standard or comedic way. Cliff Robinson calls out different loops by nationality; e.g. Canadian Loop, British Loop, and so on. They have no real meaning; he's just fooling around, but it sure confused me. I have seen plenty of air shows, and have some aerobatic training (flew with Bill Kershner for 3 days back in 1996), but it appears to me that it takes years of experience to get good at running commentary on air show maneuvers.

I really like doing any form of public speaking. Just put a microphone in my hand and turn me loose! I had a great time with announcing the Madison Air Show. If they invite me back for next year (questionable), I will be sure to do these things:

- Get a list of the performers, with contact information, well in advance of the show date, and get an information sheet from each one of them. At a minimum, I want to know where they are from, year/make/model of their plane, and the horsepower of the engine. A list of the maneuvers they will be performing would be a big plus. Other biographical information would be helpful.
- Ask for a sponsor list (not abbreviated) to be available when I arrive the day of the show.
- Find out in advance how they intend to do the national anthem. If playing a recording over the PA system, how is that accomplished? If done by a live

performer, who is it, and where will he/she be the day of the show?

- Get my airplane partner, or someone else, to go with me and help out. Having an assistant was very useful.

Air shows are a lot of fun. Being the announcer is a hoot, if you like public speaking. With a little bit of preparation, you can do a good job. I learned some insider things about air shows, and even got a free lunch. I would do it again in a heartbeat!

Larry Bothe is a past FAA Designated Pilot Examiner, and currently a FAA Team Representative and Gold Seal Instructor in southern Indiana. He is also a Master Certified Flight Instructor Emeritus and has 8000 hours in more than 90 types of aircraft. Larry is part-owner of a 1961 7EC Champ and may be contacted at LBothe@comcast.net. He received the 2015 NAFI Greg Laslo Award for Excellence in Writing.

Just for Fun

Your editor received an invitation to attend a fly-in/camp-in this coming weekend at a private airfield called Rogers International. Along with the invitation came the admonition that if you have never been in there before, you are required to call and get a briefing. Also, attached to the invitation was a release of liability/hold-harmless form that anybody flying in is required to submit. The location on the invitation just says, "Louisville, KY". I looked on the sectional and couldn't find it.

I actually couldn't make it this weekend anyway, because I already committed to fly Young Eagles at North Vernon, and besides, the weather is looking really crappy. But the whole briefing/liability thing, along with not knowing where the field is located, intrigued me. I sent a message to the guy who forwarded the invitation to me. He sent me back a link to a video. After watching the video, I understood perfectly. Have a look. https://www.youtube.com/watch?v=0akTfR_6tiE

Glider Operation Information

The Louisville Soaring Club would like aircraft flying at SER to know that the gliders almost always operate off runways 14/32. However, that does not mean that the wind favors 14 or 32. The gliders and tow plane use 14/32 because it is convenient to where the gliders are stored. ... All the gliders have radios. When approaching the field, especially on weekends, call addressing *Seymour Glider Operations* and ask where the gliders are; they will tell you. It actually works best, when glider operations are in progress, for power planes to use 5 or 23. FMI www.soarky.org, or call President Bob Walker at 502-314-3519.

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Ask an Instructor/Airline Pilot

Do you have a question about some phase of aviation? It could be about pilot certification, logging flight time, FAR's, how airlines do things, instrument flight, or anything else. Send a message to Adam Springmeyer at adam.springmeyer@gmail.com and receive a personal reply directly in your e-mail.

Local Event Calendar at a Glance

Nov 14, FFFA meeting, program TBD
Dec 11 (*Wednesday!*), FFFA Christmas dinner & annual meeting at The Pines, 6:00PM.

*An asterisk means Cliff Robinson will be performing an air show at that event. If you want to see world-class aerobatics with no admission charge, attend one or more of these events.

Freeman Field Flying Association meets the 2nd Thursday of each month, 7:00 PM, at the Freeman Army Airfield Museum. No meeting in July. Christmas dinner in December.
Airport Authority meets the 3rd Monday of each month at 7:15 PM, terminal building conference room.
Museum Board meets the 3rd Tuesday of each month, 6:15 PM, main museum building, map room.

Join FFFA: Dues are \$10 per year. Send a check, payable to FFFA, to Larry Bothe, 1082 Governors Ln, Seymour, IN 47274-1135. Include e-mail address and phone number. ½ price after the 4th of July.
Freeman Flash issues going back to 1999 are available if you contact the editor.

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