



# Freeman Flash

NEWSLETTER of the FREEMAN FIELD  
FLYING ASSOCIATION

Volume XIX, Number 3, March, 2017

Larry Bothe, Editor

Website: [www.freemanfield.org](http://www.freemanfield.org)

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## Fuel Flowing at SER, Hopefully

By the time you read this fuel should again be flowing at Freeman Municipal Airport. A new 100LL pump was set on Monday. The credit card reader technicians are here today, Wednesday, March 29<sup>th</sup>, to get the point-of-sale part working again. After that we can sell and deliver fuel. All this work is required as a result of the storm damage described below.

Violent thunderstorms we had in the middle of March fried our fuel pumps, along with some other electrical systems at the airport. The 100LL pump was cooked, as was the credit card reader and pump control. The Jet-A pump was spared and was able to be operated manually. In addition to the fuel system, several security cameras and the internet router were destroyed. The bills are not all in yet but airport manager Don Furlow estimates the damage at 50 to 70 thousand dollars. The authority carries \$1000 deductible insurance for this sort of catastrophe so most of the loss will be covered.

Don Miller and Lance Bartels both keep bulk fuel on the field for their own use. Neither are officially designated FBO's so they are not authorized to sell fuel to the general public. However, both offered to assist any airplane/pilot who was on the field without sufficient fuel to safely go to a nearby field to get fuel. Your editor is not aware of any instance where that was actually required, but it was nice of Don and Lance to offer. Thanks, guys.

### Other Airport News

**Birds gone:** It appears that the sand hill cranes have moved back north with the advent of warmer weather. Thank God! Those stupid birds are a true aviation hazard. (Pardon me for my bird-bias.)

**New grass strip:** Airport manager Don Furlow met with INDot officials. They agreed that the new grass strip being created for the glider operation would be brought up to INDot grass strip standards, which are a minimum length of 2000 feet and a width of at least 100 feet. The new strip was originally seeded at 1800' x 75'. Additional seeding will be done soon to bring the strip up to the larger dimensions. Don further advised that the current (old) 1600' grass strip will be used through the 2017 summer season. This is to allow the grass on the new strip be well-established before it is used for aircraft operations.

**Bumps, humps & blow-ups:** There was no mention of fixing the pavement "blow-ups" at the airport authority meeting on March 27<sup>th</sup>. But it's getting warmer, and once we get past our fuel crisis it is hoped that the bumps and humps will be addressed and corrected over the summer.

### FFFA March Meeting

Our March meeting was held in the museum to take advantage of the comfy chairs and media system. Louisville Soaring Club (LSC) president Bob Walker explained how the

club operates at Seymour and what it takes to add a glider rating to an existing power pilot certificate. Bob also showed a video about glider operations out west. Since Bob belongs to a soaring club out there he was able to make first-hand comments as the video progressed. It was a nice and informative presentation. Thanks Bob.

### FFFA April Program

For April we are working to coordinate a joint activity with the LSC. The idea is to expose FFFA members to the fun of gliding/soaring. The soaring season (in our latitude) starts in April and runs through Thanksgiving. Since the LSC just moved to Seymour, and they are working to establish safe and efficient glider operations at Seymour, they are not ready to host a lot of guests early in April. Right now we're considering having a joint "meeting" in late April. We're working toward April 29<sup>th</sup>, mid-afternoon, after the LSC is finished flying for the day. FFFA would provide food (fried chicken?) and we'll work the rest out later. In the meantime, mark the afternoon of 4/29 in your calendar for the April FFFA meeting. We'll send you an email when the details are worked out.

### 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 &*

*B. Grant) overlap. The FFFA on occasion supports the museum with gifts of money for worthy projects.*

*FMI [www.freemanarmyairfieldmuseum.org](http://www.freemanarmyairfieldmuseum.org).*

The museum is working on a lot of projects all at once. The boat we're fixing up for sale has an engine problem with the gear shifting mechanism. .... We bought a new computer, which is now awaiting set-up. Once the new one is up and running the old one, with a dual-monitor video card, will be moved over to enhance our media cart capabilities.

We put out a call for a small flat screen monitor and actually received a couple of them, and a 22" TV. .... Our old tabletop fridge died. We put out a call for one of them and got two, plus a water cooler to boot. People have been very generous about donating things to the museum. We always send out a thank-you letter for donations. The museum is a 501.c.3 federally-recognized charity so donations, in cash or in kind, are tax-deductible.

### Member Accomplishments

**Monte Gullion** passed his Private Pilot checkride on March 12<sup>th</sup>. He and wife Mindy (also taking lessons) have made a couple of trips in the Piper Cherokee 180 they recently purchased. This is what private, recreational aviation is all about.

### Treasurer's Report

For the period: February, 2017

<b>Opening bal, all funds</b>		<b>9,676.56</b>
<b>Opening bal, chkg acct</b>		<b>2,633.30</b>
<b>Income</b>		
Dues	110.00	
Other		
<b>Total Income</b>		<b>110.00</b>
<b>Expenses</b>		
Electric bill	127.62	
Sewer bill	9.14	
Water bill	15.28	
Other	27.37	
<b>Total Expenses</b>		<b>179.41</b>
Transfer from MMF		
Transfer to MMF		
<b>Closing bal, chkg acct</b>		<b>2,563.89</b>
<b>Mny Mrkt Fnd, opng bal</b>		<b>7,043.26</b>
Checks written		
X-fer in from chckng		
Interest earned		
<b>Closing bal, MMF</b>		<b>7,043.26</b>
<b>Net change, all accounts</b>		<b>-69.41</b>
<b>Grand total, all funds</b>		<b>9,607.15</b>

### FFFA Dues

Stragglers are slowly paying their dues. We always have some members who are away for the winter and don't pay until they return. Those who have not paid and

haven't responded to communication attempts will be removed from our rolls over the next couple of months.

## Louisville Soaring Club News & Views

Provided by Maggie Hettinger, LSC Board  
FMI [www.soarky.org](http://www.soarky.org)

Traditionally, the LSC is most active from April thru Thanksgiving. We are beginning to assemble at Seymour. Trailers and sailplanes are getting lined up and members are gradually getting hangars. A great soaring day last weekend is encouraging us on! We also see that the RC club is starting to come out. The LSC annual meeting is set for April 8, 10:30, at D's Diner (located on the field at Seymour). Lunch can be ordered off the menu. This is our season kickoff. <https://www.facebook.com/DsDiner2015/>

But today, it's raining. No soaring today! What to do? As always, every pilot plans to take the time to seriously review the FAA Soaring Handbook. Today is a good day for that. [SoaringSafety.org](http://SoaringSafety.org) offers flight training videos and more.

I'm going to add here a list of computer-oriented activities that are not going to take the place of soaring, but perhaps give a taste of it, or extend skill, or just keep our hand in when we are not flying. These are in no particular order, but I know some of our club members spend time with these resources.

**SeeYou** (<http://www.naviter.com/>) is a "flight planning and analysis tool. Its functions before the flight allow you to plan tasks, manage waypoint lists and upload all that to the navigation device of your choice. After the flight it allows you to download flights from GPS devices, see your flight on the map, analyze it into the tiniest details through Statistics and 3D view."

**Condor: The Competition Soaring Simulator** is "designed to recreate the ultimate experience of competition soaring

on your PC. A lot of attention was put in to create an environment which would create an immersion of real competition flying. This means that the aerodynamics and weather physics were a focus of the development. The result is amazingly real feel of flight in all flight regimes and weather conditions which challenge a real soaring pilot on a competition day." Several LSC members have experience with the program, and we have this sim at the clubhouse. It includes instruction for basic flight skills, soaring skills, and competition. (\$\$) A number of our glider pilots use tablets and PDAs in the cockpit. There is an Oudie Flight Simulator that can be run on your computer. [Oudie Simulator for PC](#). (free)

I have used **X-Plane flight sim** (starting with glider tow) to get used to an area, practice emergency landings, and also just to spend some time "in the air" when I'm not. Weather can be set for thermals, and there are several gliders in the basic package (including the space shuttle), with more available online. It links to Foreflight on the iPad. (X-Plane runs natively on Mac and PC; many others are only for PC.) (\$\$)

Meteorologist Dr. Jack Glendening's [DrJack's Home Page](#) is the online destination for soaring forecasts.

And somewhere, President Bob Walker and others store all their flights, and we can check them out for inspiration. Perhaps someone will post the link on LSC Soaring Flight on Facebook.

See you all soon!  
Maggie

### Interesting Aviation Links

**B-29 "Doc" flies.** The last restorable B-29 in existence takes to the skies. Link contributed by Jim West. 8-min video.

<http://mortefontainevillage.pagesperso-orange.fr/marcbrecy/b29.html>

**Naval Air Museum**, Pensacola, FL: Reader Floyd Hollandbeck sent along this link to an extensive collection of pictures of the planes at the Naval Air Museum. Your editor was fortunate to finally spend a day at the museum 2 or 3 years ago. It is impressive. And since it is a US military facility, like the Museum of the Air Force in Dayton, OH, admission is free and so is parking. I thought one of the neatest exhibits is a PB4Y Catalina with the fuselage skins removed from the sides so you can see into each compartment of the aircraft. The picture of it is about 2/5's of the way through the slide show. If you go get the staff to tell you the location of the German restaurant a few miles from the museum. The food there is good and very reasonably priced. Worth the trip. Here's the link to the pictures: [CDSG Forums :: View topic - NAVAL AIR MUSEUM, PENSACOLA 2008](http://www.cdsgforums.com/viewtopic.php?p=100000)

**Concorde:** Takeoff, landing, cockpit view.... 9-min video. The Concorde last flew in 2003 (Ed. thinks). Also from Floyd Hollandbeck. <https://www.youtube.com/watch?v=1bjzoh3iQJc>

**Special low pass**, a Ukrainian jet shows how it's properly performed. From Rob Wilmoth, 3/16/17. <https://instagram.com/p/BRorlF0BR77/>

**The Last Bomb:** B-29/P-51 actual WWII footage. This is spectacular live video of the 3,000 mile round trip air assault on the Japanese mainland, with 3 bomber wings and a host of P-51's. No matter what war footage you have ever seen before, this is the real deal and will keep your undivided attention. The P-51 & B29 footage is remarkable. The strafing runs by the P-51 pilots were incredible. There are several "breaks" as the film canisters are changed; just wait for the countdown. (View full screen/sound on. 36 min. runtime.) From Mike Brueckman, 3/16/17. <http://www.archive.org/details/TheLastBomb1945>

**Funny flight attendant announcement** (passenger briefing). You might want to listen to the video twice as it is VERY fast

(and very funny!). Read the subtitle text as the video proceeds. 3 min. From Dan Kiel; 3/20/17. <https://www.youtube-nocookie.com/embed/TxNrizGdhtY?vq=hd720&rel=0&showinfo=0&start=0&end=>

**Go fly a kite!** (5-min video from 2004) The man flying the 3 kites is in his 80s, and he's from Canada. He comes to the Washington State International Kite Festival every year. His skin is like leather as he normally flies with his shirt off. He is deaf so when he flies we hold our hands up and wave them for applause. He flies 2 with his hands and the 3rd one is attached to his waist. Enjoy! You must watch to the end to see the amazing landing of that last kite! Beautiful. From reader Jan Harris, 3/24/17. [http://www.youtube.com/watch\\_popup?v=nr9KrqN\\_Ig](http://www.youtube.com/watch_popup?v=nr9KrqN_Ig)

## Takeoff Performance Revisited

By Zach Grant

After we published Adam Springmeyer's article about airliner takeoff performance last month your editor received the following extensive comments from Zach Grant. (*Caution: If you're not really into airline operations and heavy aircraft performance your eyes may glaze over. Ed.*)

Just a couple of technical comments about Adam's column. First, the Dispatch release does not include all of the supplementary information that he states. The release is a simple statement that the captain and the dispatcher agree that the flight is safe to go based on that supplementary information that includes the flight plan, wx, notams and electronic logbook/deferrals/CDLs. So yes, you can kill a tree with all of the other stuff! I know, splitting hairs but I want to be accurate.

As for takeoff performance. This is much more complex for FAR 25 transport category aircraft than it is for our CAR3 or FAR 23 certified light aircraft. Takeoff performance has to be assured with an engine failure just prior to V1, as well as the stopping distance assured so that the aircraft ends up on a portion of the prepared takeoff surface in the event of an aborted takeoff. This surface may not be the runway itself but is a surface that would not result in severe damage

to landing gear and would be free from obstacles. Overruns and clear ways are not necessarily stressed for landing but may be used in these calculations. Many times the only way to get numbers that work on some hot and high runways is to use an unbalanced field. Normally V1, which is the highest speed that the pilot can take initial action to stop the aircraft, happens at a point in which the distance is the same for the aircraft to takeoff and clear 35 feet of altitude as it is to come to a complete stop (balanced field).

By reducing V1 to a slower speed, brake energy is reduced and thus a higher weight can go fly if the runway is available to get airborne if the engine fails just prior to V1, but the runway must be sufficiently long as the acceleration rate with a single engine from V1 to VR will be much slower than with two, and by reducing V1, the delta in the speeds will be greater, so more time will be spent at the lower acceleration rates.

If you take the aircraft airborne, the aircraft must be of a weight that it can cross the end of the runway no lower than 35 feet (think airport fence), clear any obstacle in its flight path up to the stated acceleration altitude and maintain the required climb gradient required for the departure segment to be flown, all with the loss of one engine. This is all pretty standard and on hot days with high density altitudes, or short runways, the limit weight of the aircraft can be significantly less than max structural gross. (There can also be a tire limit speed that adds a weight limit as you must calculate your ground speed at takeoff. This is calculated as true airspeed at liftoff which is Vr compensated for pressure altitude and temperature, plus 15 kts plus any tailwind or minus any headwind.)

On the other end of the flight, the aircraft must be able to land, so the limiting weight may be max structural landing weight. Takeoff weight minus planes fuel burn must equal max structure landing weight or less. Additionally you could be runway limited to a lower weight due to stopping distance or surface condition penalties for wet or cluttered runways.

The next interesting limit is that you be able to make the landing climb gradient required of the aircraft to fly the published missed approach should an engine be lost at the missed approach point. This is often times the more restrictive weight than landing weight, especially at high altitude airports in the winter. Just like the

brake energy issue that is somewhat counterintuitive, even though the density altitude is lower when it is cold, there is a chance that there might be ice on the aircraft. This is required to be accounted for during certification of the aircraft, and is applied as a performance weight penalty anytime icing conditions may occur (IFR flight and freezing temperatures).

This penalty can be significant. For example, if a 737-900ER has a max structural landing weight of 154000# (and no more limiting runway weight limit), and has a landing climb limit weight of 162000# on this particular day and particular airport (and configuration, as the landing flap setting is assumed to fail in the position it is in), there is no problem right? You would never plan to land over max structural wt. Let's say that due to needing fuel for an alternate and because it's Christmas break the flight is full so you are planning to land right at max landing weight. Now, add in the icing penalty weight of 18000# performance weight (this is funny math. The weight isn't there but is added into the performance weight calculations to see how the aircraft will really perform under the conditions) for ice that MIGHT be on the airplane on unprotected surfaces, and you will see that you are 10000# over your climb limit weight to land. The dispatcher and the Captain must resolve this before takeoff (this is a dispatch function and doesn't matter if ice is really on the plane or not, or what weight you really get to your destination). So a closer alternate is found requiring less fuel to be carried, and 20 people and their bags are bumped due to performance issues that will never in truth ever be an issue, but are mandated as worst case scenario by the FAA during certification.

After writing all of this, I'm frankly surprised we ever get airborne!

Zachary J. Grant

## **FAA Shutting Down VORs**

By Adam Springmeyer

Hello FFA Members. I would like to thank everyone for all of the comments that I got on the last article. I would specifically like to thank Captain Zach Grant. Captain Grant is correct on the details of my last article. There are many other performance factors that are present in Transport Category aircraft, and those aircraft flying under FAR



Part 121. As a reminder, please look over your performance numbers before you go flying.

For this month's article we are going to focus on the VOR closures that started in June of 2016. The program will be done in 2 phases. Phase 1 will end in 2020, and Phase 2 will run through 2025. VORs are not the only thing that will be decommissioned. If the VOR has an associated instrument approach to a nearby airfield that approach will also be removed. The same thing goes for the associated Victor airways. The FAA has determined that the VOR system is too costly to maintain.

Indiana has made the list for Phase 1. The Nabb VOR was taken out by a tornado a few years ago, and its service volume does not currently effect the airway system. Other nearby VORs that will be decommissioned include Kankakee (IKK), Lawrenceville (LWV) and Mattoon (MTO) in IL, Bowman (BQM) in KY, and Battle Creek (BTL) in MI.

Phase 2 has a long list of VORs that will be decommissioned. There are a great deal of VORs in the state of Indiana including: Boiler (BVT) in Lafayette, Goshen (GSH) near South Bend, Muncie (MIE), Kokomo (OKK), Webster Lake (OLK) near Fort Wayne, Knox (OXI) near Valparaiso, Marion (MZZ) outside of Indianapolis, Hoosier (OOM) in Bloomington, Terre Haute (HUF), and Richmond (RID).

The only VORs that will remain operational in Indiana at the end of Phase 2 (~2025) will be Pocket City (PXV) just outside of Evansville, Brickyard (VHP) north of Indianapolis, Shelbyville (SHB), Fort Wayne (FWA), and Gipper (GIJ) near of South Bend.

A full list of the VORs can be found under this link: <https://www.gpo.gov/fdsys/pkg/FR-2016-07-26/pdf/2016-17579.pdf> The primary reason for all of these closures is due to the safety and accuracy of the GPS system, and

the cost associated with keeping the entire VOR system running. The list of the VORs that will be decommissioned were based on the following information: If a VOR is directly supporting an Instrument Landing System (ILS), if the VOR is above 5,000 feet AGL, if the VOR is supporting the Oceanic Air Routes, or if the VOR is in mountainous terrain, they will remain in operation.

Thanks for reading, and I look forward to helping everyone next month. Fly safe!

Adam

### **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](mailto:adam.springmeyer@gmail.com) and receive a personal reply directly in your e-mail.

### **FFFA Officers - Contacts**

**Karen James**, President, 812-498-4482

[Flygirl172@me.com](mailto:Flygirl172@me.com)

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**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 4<sup>th</sup> of July.

**Freeman Flash** issues going back to 1999 are available if you contact the editor.

## Local Event Calendar at a Glance

**Apr 29 (tentative), FFFA April meeting, in the afternoon at the LSC hangar**

Sun 'n Fun 2017 April 4-9, Lakeland, FL

**May ???, field trip to Indy tower. Date TBD.**

**June 8, Safety Meeting, SER terminal building, 7-9 PM. Larry Bothe will present *Fly the Easy Way: 21 tips and tricks I have learned in 44 years of flying.* Counts as credit for FAA Wings pilot proficiency program.**

Jun 10, Columbus, IN Airport Day

Jun 11, Sinful Sunday at Lee Bottom

Jun 25, air show, Clay City, IN\*

Jul 9, Sinful Sunday at Lee Bottom

**July; no FFFA meeting. Have fun at Oshkosh.**

AirVenture 2017, July 24-30, Oshkosh, WI

**Aug 10; FFFA meeting, in museum, members relate Oshkosh experience. Bring pictures.**

Aug 13, Sinful Sunday at Lee Bottom

Sep 2, Fly-in & air show, Waynesville, OH (Red Stewart Field)\*

Sep 9-10, Putnam Co. Aviation Days

**Sep ???; field trip to Air Force Museum, Dayton, OH. Date TBD.**

Sep 23, North Vernon Airport Awareness Day, fly-in and air show\*

Sep 30 & Oct 1; Danville, IL, fly-in & air show\*

**Oct 12; 7PM, FFFA meeting, in museum, guest speaker.**

**Oct 14, Seymour Aviation Day, sponsored by Cherry Hill Aviation**

**Nov 9; 7PM, Veteran's Day program, guest speaker, probably in museum**

**Dec 14, Christmas party & annual meeting, 6PM, D's Diner**

*(Bold items are FFFA meetings/activities)*

\*An asterisk means Cliff Robinson will be performing aerobatics at that event.

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**Freeman Field Flying Association** meets the 2<sup>nd</sup> Thursday of each month at 7:00 PM, FFFA Bldg. No meeting in July. Christmas dinner in December.

**Airport Authority** meets the 3<sup>rd</sup> Monday of each month at 7:15 PM, terminal building conference room.

**Museum Board** meets the 3<sup>rd</sup> Tuesday of each month, 6:15 PM, main museum building library room.

## **Sell – Buy**

Have something you want to sell or buy? FFFA members get a free ad. Contact the Editor, Larry Bothe, 812-521-7400, or e-mail [LBothe@comcast.net](mailto:LBothe@comcast.net) to place an ad.

## **Local Aircraft for Sale**

### **½ share of 1963 Beech Musketeer**

Mark Kendall's brother-in-law lost his medical. He'll sell his share for \$16,500. Aircraft is IFR-equipped and the annual was just completed by Cherry Hill Aviation. Call Mark for more info, 812-216-1147

## **Cliff Robinson Aerobatics**

Open cockpit bi-plane rides in 500HP Stearman Acro and tailwheel training in Super Decathlon  
Cliff Robinson, Madison, IN 812-701-9990  
[cliffrobinsonaerobatics.com](http://cliffrobinsonaerobatics.com)

## **Eagle Avionics**

Radio repair and installation, shop at BAK  
Authorized dealer for Garmin, Aspen, Avidyne, Lynx (L3), Dynon, Stratus, and several others.  
Contact Eagle Avionics for your ADS-B solution.  
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## **FAA Handbooks for Pilots on CD**

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