



# Freeman Flash

NEWSLETTER of the FREEMAN FIELD  
FLYING ASSOCIATION

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Larry Bothe, Editor

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

## T-Hangar Rent Increase Delayed

Last month we told you that sometime in early January T-hangar tenants would receive notice of an up-coming rental rate increase. No letters were received, but that doesn't mean the rent increase went away. At the January airport authority meeting it was revealed that after further consideration, the rent increase would be effective January 1<sup>st</sup>, 2022, rather than the originally proposed date of 5/1/21. The basic increase will still be from \$85 per month, up to \$100, with somewhat different increases for certain situations. A letter with all the details is now expected to go out in the next week or two.

**Blue Hangar Space Rental:** There still may be one space available to rent in the Blue Hangar, for \$150 per month. If you want your plane to be at Seymour, in a modestly-heated hangar, call Diane at 812-522-2031.

### Other Airport News

The airport authority is moving ahead with the plans to rehabilitate the pavement on runway 14-32 in 2022. They would like to get the design work done in 2021. The FAA is waffling a bit on the availability of funds, so grant application will be made 2 ways. The first is as above; design in 2021, and do the work in 2022. The alternative is a 1-year delay; design in 2022, and work accomplished in 2023.

Brian Thompson has been appointed to another 4-year term on the airport authority,

and will remain as President of the authority in 2021. The other officers remain the same as well.

### FFFA News

**What's in Your Flight Bag?** Was the theme for our January meeting. The idea was for those in attendance to show and talk about what they take to their airplane every time they go flying. Tell us why the items are important; how they make flying safer and more enjoyable for them.

In our small group regular attendees, we found a gender difference. The two women who regularly attend have dedicated flight bags they bring with them to each flight, and they had a lot of things in there. In contrast, the men simply no longer had flight bags; although they used to have them in the past.

The dominant item that everyone seems to have these days is an iPad. All the charts, manuals and airport directories they need are on that device. No more bulky binders full of paper. Male aircraft owners leave the items they need in their planes, except of course for the iPad. It goes home for recharging, downloading of chart updates, etc. We had a lively discussion about why certain items are important, backups for iPads (usually an iPhone), and clinging to paper charts. It was a good meeting. So was the dinner before.

**FFFA dues for 2021:** It's a story of halves. We started out with only about half of our

members owing dues for 2021. The other half are already paid one or more years in advance. The half the owe 2021 dues were sent an invoice. Now, as of 1/20, about half of those who owed 2021 dues have paid, and about half of them have paid for more than one year. So now were down to about 20 members who still owe dues. Please pay your dues this month, and save us from doing a lot of follow-up work. Thanks.

**February meeting program:** We don't yet have a formal program for the February meeting. A member asked a question about what's in an aircraft maintenance manual, and how to use it, but we haven't figured out how to wrap a program around that. If you have an idea for a presentation or discussion for February, please let your editor know.

**Dinner before the meeting:** A group of us meet at the Poplar St. Restaurant (513 S Poplar St, Seymour) at 5:00PM for a bite to eat before each FFFA meeting. Please join us for dinner. We talk about whatever has happened to us lately in the aviation world. Information flows. Lots of fun!

## FFFA Member Activities and Accomplishments

**Lance Bartels** has completed 1 year flying for UPS. That's significant because at UPS, a new hire is on probation for their 1<sup>st</sup> year. If they turn out to have bad work habits, don't adhere to UPS rules, or in general don't fit into the UPS culture, their services are terminated. But if you pass muster, then you go into the pilot union, that will now stick up for your rights, and oh-by-the-way, you get a substantial pay increase. It's sort of like a college professor attaining tenure. Congratulations to Lance for reaching that milestone.

It seems like it's Cherry Hill month. Jimmy Baker, who has been in an aircraft apprenticeship program at Cherry Hill, crossed over the required 3 years of experience in order for the FAA to allow him

to sit for the mechanics test. Starting Monday, he attends 2 weeks of school to brush up on regulations, documentation requirements and privileges & limitations. Upon completion of the course, he takes the final test right there at the school, and comes home with his official FAA Airframe and Powerplant mechanic certificate.

## 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, K.*

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

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

The Focke-Wulf Fw-190 tail wheel and vertical stabilizer/rudder assembly display has moved forward to the point that we need the steel stand that Crane Hill Machine is building for us in order to complete the work. In the meantime, we have reorganized the other German aircraft parts, and made new signs for them.

The new trim/throttle/mixture/flap controls that mimic the ones found in a Cessna 172 Skyhawk are now fully functional. Those new controls, along with the Honeycomb yoke and Redbird rudder pedals we added last year, make the flight simulator a lot easier to fly. With the control upgrades finished, the next simulator improvement is to add detailed airport building scenery, and expand the photo-realistic geographic background scenery to the north and west of Seymour.

Marty Schwab is making good progress on modifying the kiddie sim enclosure to accept electronic flight simulator components. So far he has shortened the legs and added casters, and fabricated and installed a computer shelf. The old seat has been removed, and a new adjustable-position seat is being installed. We need a rent-a-kid to help get the new seat in the right place. After the seat, a shelf out

front to hold the display monitor needs to be installed, and we're ready for the electronics.

Here's a fun thing. We have a mannequin in the museum entry room that displays Captain Richard Freeman's (airfield namesake) uniform. The head on the mannequin was bald, and it looked weird with no hair around the ears or in the back of the neck. Connie Beck, stylist from The Buzz hair salon here in Seymour, rounded up a "shag" women's wig. She brought it out to the museum and styled it into a man's haircut, right on the mannequin. Here's a picture of it as we were admiring her handiwork just when she finished.



Note Capt. Freeman's portrait on wall at upper left, and excess hair on floor at his feet. Thanks for donating your time and expertise to the museum, Connie.

### Amazon Smile

Are you shopping for after-Christmas bargains at Amazon? By going to [smile.amazon.com/ch/35-2060830](https://smile.amazon.com/ch/35-2060830) to place your order, you can **help the museum**. Amazon will give 1/2 of 1% to the museum, at no cost to you. Thanks for helping us this holiday season, and all year long.

### Kroger Community Rewards

Kroger Foods (includes Jay-C Stores) has a program similar to Amazon. Most Kroger shoppers have a Kroger "frequent shopper" card. If you go online to <https://www.kroger.com/i/community/community-rewards> and register your card, Kroger will donate 1/2 of 1% to the museum, just like Amazon. You only have to register once; after that it's all automatic when you show your card at checkout. You already do that anyway to get the discounted price on the specials for that day.

### Eagle Avionics Situation – Coronavirus is causing major delays in their shop work.

FFFA member **Tim Sparks** had inquired with **Andy Ziegler** at Eagle Avionics (also an FFFA member) about a panel upgrade for his Cardinal. Tim hadn't heard anything for a long time, so he followed up. Just before New Year's he received the following reply from Andy: *The whole shop has been out with Covid since right before Thanksgiving. My step-dad had it and was in the hospital. He is out now and is doing much better. My Mom has it now and isn't doing very well. My wife and I just got over it. I was pretty sick so I haven't been doing any work at the shop, and not very much from home. As you can imagine, I'm running way behind on everything. That is why I haven't gotten back with you, or anyone*

*else, for the past month. I hope you had a Merry Christmas, and wish you a Happy New Year as well.* (Ed. note: Andy's message was slightly edited for clarity.)

Since this information is now nearly a month old, I called Andy today (1/22) for an update. He said the entire shop is back to normal as far as employees go, and they expect to get some big projects completed soon. However, due to the backlog they had going into the 6 weeks they were essentially shut down, and the lost time, they are scheduling new projects for July. Andy can and will work in maintenance needs for their customers (they are doing on-site transponder and pitot-static certifications today in North Vernon), and a single radio installation may be possible, but whole-panel makeovers are about 6 months out.

## LSC Glider News –

What is a Total Energy (TE) Variometer?

By "UPS" Bob Walker

The term "variometer" is used to describe an instrument that measures variation. In powered aircraft, the VSI (Vertical Speed Indicator) is a type of variometer. (Yes, I realize we never refer to the "variometer" in a Cessna, but I had to start somewhere with this article.)

Gliders also have variometers (hereafter referred to as "vario"). Typically, the varios in gliders have been designed to measure a rate of change in energy. These are called TE (Total Energy) varios. This month's article describes the purpose and function of a TE vario.

**Purpose of a TE Vario:** A TE vario measures the rate of energy change in a glider. Remembering your high school physics, you'll recall that a rate of change in energy is simply a measure of "power." That's right – unpowered gliders have a power meter (TE

Vario)! At first glance, this might seem counterintuitive, and you're asking, "Why does an unpowered aircraft need a power meter?"

The next step is to decide on the units of power the vario should display to the pilot. Units of power include horsepower, Watt, ergs per second, foot-pounds force per second (my favorite), Joules per second, etc. Thankfully, a TE vario uses none of these units. Instead, the rate of energy change (power) is calibrated and displayed as a climb (or descent) rate (see photo).



A positive rate shown on the TE vario indicates the glider is gaining energy. Conversely, a negative rate indicates the glider is losing energy. As we'll see later in this article, the TE vario might show 4 knots up when the glider is flying straight and level. (Note: 1 knot is roughly 100 feet per minute.) Therefore, the face of a TE vario might have the appearance of a VSI, but the needle behaves very differently.

### **How Does it Work (without formulas)?**

In principle, a TE vario uses altitude and speed to calculate potential energy (PE) and kinetic energy (KE), respectively. The total energy (TE) of the glider is PE+KE (whoops, that's a formula, sorry).

By measuring the rate of change in TE, along with some algebraic magic, the TE vario shows the rate of energy change calibrated in a rate of climb or descent. An important

point that gets lost in the math is that the mass of the glider is not a factor in these power calculations. A more rigorous discussion of the physics involved would show that the mass can be eliminated from the equations. Consequently, a TE vario will work in any glider without modification – it needs no customization to account for variation in glider mass or aerodynamic differences in glider models.

### **A Look at Specific Examples**

**Ex. 1:** Glider is flying in still air; airspeed is constant and descent rate is 2 knots. The TE vario would read -2 knots. In this rare case, the TE vario behaves as a VSI. Its PE is decreasing, and KE is constant.

**Ex. 2:** Glider is flying through strong lift; airspeed is increasing while altitude remains constant. The TE vario would read a climb rate (although the glider is not climbing). Its KE is increasing, and PE is constant.

**Ex. 3:** Glider is flying in still air; the pilot gently pulls back on the stick and the airspeed decreases while the altitude increases. In theory the TE vario would not show a change. In this case, the KE is decreasing while the PE is increasing. Nothing is perfect, so some small variation would be seen, but that's for another article.

### **Summary**

Without an engine to provide a reliable source of power, energy management is a key part of all glider flights. The TE vario is the one instrument that provides a real time indication of energy change.

Best wishes and safe flying to all.

## **A Quick Vario Story**

By Larry Bothe, 1/22/21

Some of you may know that I am commercially rated in gliders. I got the rating back in the summer of 1978, when I needed a flight review. I took the training over a long weekend at the Schweizer factory school in Elmira, NY. They did a lot of this sort of weekend glider rating training, and the weekend I was there they ran out of sailplanes in which to do the training. In order

to alleviate that problem, they simply went across the field and got a brand new single-place 1-26 glider, and brought it to the training area. I had soloed after 3 flights, was already a power CFI, and had the most total time of any student there that weekend, so they decided to trust their brand-new aircraft to me. The 1-26 doesn't have any better performance than the stodgy 2-33 (glide ratio about 20:1), but it was a hoot to have the brand spanking new single place ship in which to practice and get the required number of flights in order to be able to test for the commercial glider rating.

Of course, the 1-26 had a variometer. I don't know if it was of the Total Energy variety discussed by Bob Walker above (remember, that was 43 years ago), but I do know that it was "instantaneous reading"; that is, the second you entered lift or sink it would immediately show you the amount of up or down motion you were getting. This is in contrast to a regular VSI, which takes 7 seconds to show the full amount of up-or-down motion of the airplane.

At one point I sensed that I was going up, but the vario didn't show it. I thought the instrument might be stuck, so I tapped on the front of the instrument with my finger. Bad move! The glass on the instrument broke. Now I had a brand-new glider with a broken instrument, and I had to land and fess up. I sure couldn't blame it on anyone else; nobody (except the factory test pilot) had ever flown it before. After my last flight (the vario still worked, with e cracked glass), I called the instructor over and told him what had happened. He wasn't happy, because he knew his boss was going to be very *unhappy*. But he signed me off for the checkride, I passed, and went home with my Commercial Glider rating. My flight review requirement was satisfied. I never flew a glider again until a couple of years ago when Lance took me up in his 2-place, high performance (glide ratio 37:1) Grob 103, and let me fly it for about half an hour.

## **Airline Perspective -- Optimistic Thinking???**

By Adam Springmeyer

2021 is here! We are done with the dreadful year of 2020, which can go down as one of the worst in history. That being said, I hope this article finds you and your families all safe and well. I hope everyone's Christmas and New Year celebrations were enjoyable.

We start off with some great with news from the different airlines:

**Republic Airways** – All the flight attendants have been recalled from their leaves of absence. The total number of pilots on leave is less than 10%; and decreasing each month due to the increased amount of flying. There are still 37 Pilot Trainees on furlough.

**PSA Airlines** – Started to hire new First Officers. All of their furloughs have been recalled and their training is progressing. They had 1000 pilots on furlough or were downgraded from Captain to First Officer. The new hires will not start until later in the summer of 2021.

**SkyWest** – Started to hire 40 new First Officers. All their trainees will be assigned to the CRJ fleet only.

**Southwest Airlines** – Added 5 new cities to their route map. The 737 Max is back in their fleet and will be rotated into their schedules. They have also announced that a deal has been reached to not furlough the pilots on their roster.

**Rav'n Air Alaska** – Started to hire again. This airline serves Anchorage airport and flies to several destinations in the state. This airline was under a different name (Era) that went bankrupt and has reorganized and restarted.

**JetBlue** – They have taken delivery of their first Airbus A220 aircraft. This aircraft is designed to replace the Embraer ERJ-190.

**American Airlines** – Is putting more of their eggs in one (1) basket with announcing an increased number of flights out of New York – LaGuardia (LGA), and New York – John F Kennedy (JFK) airports.

**Delta Airlines** – Optimistic that they will resume hiring as their cash flow declines have slowed. There have not been any published numbers they intend to hire. They have reduced their cash flow loss from \$24 million per day to \$12 million per day.

**ExpressJet Airlines** – This airline was one that was lost in the COVID-19 pandemic, and was solely a United Express carrier. An announcement on their website stated they plan to become their own entity, and will fly to major cities outside of the normal hubs. No further information is available just yet.

Not so happy news from the airlines:

**Republic Airways** – Announced the closure of their Miami International (MIA) base effective April 1, 2021. Its partner, American Airlines, has promised them more departures out of the New York area.

**American Airlines** – Pulled out all 50 seat operations from the New York area. They will be bringing more 70–76 seat aircraft into the area. They also have sold 4 slots into the NYC area to JetBlue.

There is a great deal of news happening. I am hopeful that this news, and our passenger counts, continue to increase. Right now, I still have my job and I'm still based in Pittsburgh, Pennsylvania. I will have more information within the next 3 months as to where the pilots from the MIA base will end up.

I would like to thank each and every member for reading these articles. I would also like to thank all the members who sent in requests for different topics. If you have any questions that you would like to be answered, please email me at [adam.springmeyer@gmail.com](mailto:adam.springmeyer@gmail.com). Fly Safe, and Blue Skies.

### **Orville Toler**

When I stopped by at Cherry Hill Aviation yesterday, Lance informed me that Orville passed away in Florida earlier in the week, on Monday. (Ed. note: Orville, and his wife, Olivia, were the first aviation people that my wife and I met after moving to Seymour in 1998.)

### **Seymour 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](http://www.soarky.org), or call Mike Carlson, President, 502-321-6349.

### **FFFA Officers - Contacts**

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### **Local Event Calendar at a Glance**

Feb 11, FFFA meeting, museum, 7:00pm.  
Program TBA  
Apr 13-18, Sun 'n Fun 2021  
Jun 19, Fly-in breakfast, OVO  
Jun 17-19, Aeronca Fly-In, Middletown, OH  
Jul 20; Flying Circus, Hagerstown, IN  
Jul 26-Aug 1, AirVenture 2021, Oshkosh, WI OSH  
Sep 3-5; Red Stewart fly-in, Waynesville, OH  
Sep 9-11; Midwest LSA Expo, Mt. Vernon, IL  
Sep 25; Madison Air Show

\*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.

### **Ask an Instructor/Airline Pilot**

Do you have a question about some phase of aviation? 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.

### **Association & Meeting Information**

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

**Airport Authority** meets the 3<sup>rd</sup> Monday of each month at 7:15 PM, terminal building conference room.  
**Freeman Army Airfield Museum** board meets the 3<sup>rd</sup> Tuesday of each month, 6:00 PM, main museum building, Map Room.

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

### **Sell – Buy**

Have something you want to sell or buy? FFFA members get a free ad. Send an e-mail to [LBothe@comcast.net](mailto:LBothe@comcast.net) to place an ad.

### **Cherry Hill Aviation**

Aircraft Maintenance & Annual Inspections  
Tube & fabric work a specialty  
Aircraft sales, rental & flight instruction  
**Lance Bartels 812-322-6762**

### **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.**  
**Transponder & IFR certification at your airport**  
Call Andy Zeigler, 812-344-0468

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