



Freeman Flash

**NEWSLETTER of the FREEMAN FIELD
FLYING ASSOCIATION**

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Website: www.freemanfield.org

SER Fuel Prices Lowered! 100LL now \$3.85/gallon, Jet-A \$2.50

The price of auto fuel at your friendly neighborhood gas station is based on the anticipated *future* price of gas, not what the gas station paid for what it has now. That's why we see frequent and immediate changes in the price of gas for our cars every time there is some news affecting the world oil market. Airplane fuel, on the other hand, especially at smaller airports, is based on whatever the operator had to pay for it, plus a markup to cover overhead expenses and make a reasonable profit.

The "operator" these days is very often the local airport authority at smaller airports. That's true here at Seymour, and at our surrounding airports of North Vernon, Madison and Bedford. You have to get to the size and business level of Bloomington or Columbus before private enterprise can turn a profit selling fuel. Since small airports buy only one or two tankers (8000 gallons per tanker truck) of fuel a year, the price of fuel to the pilot at that airport stays the same for a long period of time, regardless of what is happening out on the street at gas stations.

Seymour recently took deliveries of both 100LL and Jet-A. Prices have come way down since the advent of coronavirus, so our prices at the pump are greatly reduced. 100LL used to be \$4.75, and Jet-A was \$3.40.

Runway Construction Update

You will recall that it is necessary to "move" runway 5-23 1000-feet to the southwest in order to make proper clearance space for the Burkhardt Blvd. bypass around the east and south sides of the city. That involves physically removing 500 feet of pavement at the northeast end, and setting the threshold of runway 23 at 500 feet down the remaining part of the runway. On the other end, to the southwest, that 1000 feet will be added back, plus an additional 500-foot extension, bringing the total runway length for 5-23 to 6000 feet. In order to get out to the beginning of runway 5, a 1500-foot parallel taxiway has to be constructed.

You may also recall that our center taxiway, taxiway C, has been slated to be reconstructed for several years. That will give taxiway C a known certified bearing weight, thus closing the loop of taxiways A and C, and runway 5-23, all having certified bearing weight. Our airport will then meet the rules for certain heavier aircraft to land only at airports having certified bearing weight pavement wherever the airplane will travel on the field.

Finally, the way our 2 runways now come together in the shape of a 90° V, with a taxiway leading to the point of the V, is no

longer an acceptable airport design. Reconstructing taxiway C, and adding the 1500-foot parallel taxiway out to the beginning of extended runway 5, will eliminate the offending runway/taxiway intersection.

At the airport authority meeting on Monday, May 18th, BF&S Engineering VP of Airport Development, Paul Shaffer, gave an update on revised construction plans and schedules. First, he said that the reconstruction of taxiway C will be done concurrently with the runway 5-23 move/extension, and the new parallel taxiway. It's all going to get done this year, and in this construction season.

The work was supposed to have begun back in April, but the wet weather has prevented the contractor, Dave O'Mara, from getting started. It now appears that work will begin on or about June 1st. The first part of that work will be doing grading and establishing proper drainage in the area where the southwest 1500 feet of new runway and taxiway will be built. That work is sufficiently far away from our current runways that they can both remain open, full-length. Right now, the best guess is that runway 5-23 will be closed for about 90 days, starting right after the 4th of July holiday. Most of that time runway 14-32 will remain open, full length. Toward the end of the project, probably in September, the threshold of runway 32 will have to be temporarily displaced 1500 feet for a period of approximately 2 weeks. That will result in the usable length of 14-32 being reduced to about 4000 feet for that 2-week period. The threshold displacement is necessary so that construction workers can safely build the new taxiway crossing in that area. The entire project will hopefully be completed by mid-October.

Other Airport News

Corporate hangars: Lance Bartels came before the airport authority to request that they consider the private construction of some larger, corporate-style hangars for bigger airplanes; turboprops and jets. Lance

believes he can attract several such operators to our airport. The authority was open to the plan. They invited Lance and potential operators to meet with airport manager Don Furlow to determine locations where hangars could be constructed.

Blue Hangar Vacated: The blue hangar is being vacated by the present tenant at the end of May. The authority is strongly considering renting individual spots in the hangar for owners to keep their planes. Airport secretary Diane Schepman reported that there are 13 people on the hangar waiting list.

How is coronavirus affecting our immediate aviation life?

Your Editor: Not instructing. Flying the Champ alone, occasionally.

Cherry Hill Aviation: Working. Lots of planes to fix.

Airport Office: Open, cautiously. Airport authority meetings are back to being live, with social distancing.

Freeman Army Airfield Museum: Reopens Saturday, June 20th.

LSC Glider operation: Limited operations. Call President Mike Carlson for more information.

Coronavirus Event Schedules

What about AirVenture? Cancelled
Museum Airplane Ride Day: Cancelled

FFFA Meeting News

There were no meetings in March, April or May, due to coronavirus. We intend to **resume meeting in June**. The date is June 11th; please mark your calendar. Larry Bothe will do a program on how to comply with the rules, and stay safe, for those of us flying airplanes not yet equipped with ADS-B Out. This meeting will qualify for FAA Wings credit, and other area pilots are invited to attend. Note that the museum media room now has added seating; up to 30 people. That was accomplished by moving the AT-10 aircraft display to a different room.

We're not sure what to do about a July meeting. We usually don't have one, because many members go to Oshkosh. But with Oshkosh being cancelled, Karen is thinking about some activity in July. More later.

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.

In keeping with Governor Holcomb's guidelines, the museum intends to reopen on Saturday, June 20th.

During the coronavirus shutdown, we completed the room usage changes that have resulted in the increased seating capacity in the media room, having the AT-10 aircraft and cadet information/pictures in a separate room, and a new staff area, combined with the office/computer area, in the south end of the library room.

The next museum project is to create the pictorial history of the development of Freeman Field. We have aerial photos from the farm fields of the late 30's, creation of a military base, and up through the current combination of modern industrial park and municipal airport. These large photos will be displayed on the back wall of the media room, and will nicely compliment the other airport historical information and diorama.

Late last year the museum was given quite a number of WW-II aircraft models. Besides them, we have additional WW-II models that were acquired earlier from the Grissom Air Museum. Of the 30 or so total number of models, some are very nice, some not so nice, and some are damaged. There are duplicates. We need a volunteer to go through all these models, decide which ones to display, repair those in need, and then

decide where/how to display the keepers. Anyone interested in helping with that should contact Larry Bothe at LBothe@comcast.net, or 812-521-7400.

Member Accomplishments

Helmut Weislein moved his airplane to Breckinridge County, KY airport (from Leitchfield, KY) to take advantage of a leasing a brand-new hangar. It looks like there's room for a DC-3 in there!



Glider Topics - Sources of Lift

By Bob Walker (UPS Bob, not Dr. Bob)

In ideal conditions, it's not uncommon for gliders to travel hundreds of miles in a single flight. A high-performance glider with 21-meter wingspan might only descend at 100 feet per minute (FPM) while cruising at 70 knots. In spite of this efficiency, gliders must continually find sources of lift to regain altitude and remain aloft. This month's article covers the three most common sources of lift – thermals, wave and ridge.

THERMAL LIFT

Thermal lift is the most common lift found in soaring. As the ground heats up in the midday sun, a bubble of air is created that's warmer and more buoyant than the surrounding air mass – solar energy reaching the ground triggers thermals. As the bubbles of air rise (like bubbles in a glass of soda) they often encounter cooler surrounding air. This is due to the properties of the atmosphere. If these bubbles were textbook perfect and no heat exchange took place with the surrounding air, the bubbles would cool

at the dry adiabatic lapse rate of 3°C per 1,000 feet. As long as the bubbles are warmer than the surrounding air, they continue to rise, and the glider pilot happily circles in this rising air. This is solar energy at work.

Now here's some information you may not have known. Around Seymour, the average thermal is roughly 200 to 300 FPM. However, on good days, the thermals far exceed 500 FPM, and often carry the glider up past 7,000 FT. At this altitude, a high-performance glider can safely glide more than 25 nautical miles (NM). Using high school physics, the glider is staying aloft with solar energy equivalent of only 2 to 4 horsepower. Strong thermals can provide 10 to 20 horsepower. Not bad for free energy.

WAVE LIFT

Unfortunately, wave lift doesn't occur around Seymour. However, some of you may have encountered wave lift on the leeward side of the Rockies or Sierras. Under rare atmospheric conditions a standing wave will set up downwind of a mountain range. The wave has areas of strongly rising and descending air, and this pattern repeats for many miles. If there's enough moisture in the atmosphere, standing lenticular clouds will form and mark the peaks of the wave.

The formation of waves requires wind that's nearly perpendicular to the mountain range. The wind is usually 25 knots at the mountain top, and gradually increases with altitude. In addition, the atmosphere must be relatively stable for the wave to set up. Spring and Fall are ideal times to catch a wave out west.

Wave is high altitude flying. On September 2, 2018, Jim Payne and Tim Gardner reached an altitude of 74,298 FT while flying the Perlan II glider in El Calafate, Argentina. I've had the pleasure of meeting Jim, Tim and other members of the Perlan II team many times. Their story, especially the technological advances in aerodynamics and weather models, is fascinating.

RIDGE LIFT

Ridge lift is probably the easiest to understand. On breezy days, the wind strikes the upward slope of a mountain ridge and is directed upward. For the more technically minded, this is called orographic lift. The glider flies in the rising air, close to the ridge surface. With strong lift, gliders can fly at relatively fast speeds and great distances.

Ridge lift is often encountered up and down the Appalachian Mountain range. In 1983, Thomas Knauff used ridge lift to set the U.S. out-and-return distance record of 1023 miles.

This article was intended to provide an overview of lift sources. The cross-country glider pilot is constantly searching for sources of lift. Around Seymour, thermals are the primary source of lift. Each time we stop in a thermal to climb, it's the equivalent of stopping for gas, but it's free. Until next time, fly safely.

Airline Recovery Progress

By Adam Springmeyer, May, 2020

I hope that you and your family are doing OK in these trying times. In spite of the first news below, I still have a job.

The bad news first. Republic Airways (my employer) had to lay off a series of pilots and dispatchers. The company cited that the delay in receiving the CARES Act money, and our reduced flight schedule, resulted in the need for these layoffs. In addition, Republic has eliminated 300 office jobs. The total loss of people was 369.

Per the CARES Act, once the wage continuation money is transferred, Republic cannot lay off or terminate more than 10% of the total work force. Currently, Republic Airways has about 6700 employees. This means that Republic could lay off a total of 670 people and still keep their funds. Let's hope that this epidemic passes soon, and we won't have to give more bad news to any

additional employees. There are a few other airlines that have also had to lay people off during this pandemic, but official numbers haven't been released yet.

On the bright side, one airline that was on the verge of closing its doors, Sun Country Airlines, has signed a contract with Amazon and will be flying some of their Amazon Prime cargo flights. Sun Country is converting three of their Boeing 737 passenger planes to cargo configuration, and will soon acquire 4 more 737 freighters. The freight contract with Amazon will allow Sun Country to remain in business.

The overall airline picture is improving, but it is still far below where it was a year ago. Last week we were back up to carrying 1.25mm passengers per week, up from the abysmal low of just .4mm/wk. But we still have a long way to go. Last year at this time we were emplaning double the current level, or 2.5mm passengers per week.

In order for this increased passenger carriage to be safe, some new procedures will have to be followed:

1. If you are flying on United, JetBlue, or Alaska Airlines you will be required to wear a mask for the entire duration of the flight. Other airlines encourage but do not require wearing masks.
2. There will be a very limited food & beverage service for the foreseeable future.
3. Pilots, flight attendants, and gate agents will continue to wear masks in order to limit their exposure to the virus.
4. If you are flying on an economy fare, and traveling on an aircraft that has a middle seat, that seat will be blocked off to provide social distancing. If you are flying First Class or Business Class, and the seating is 2 seats on each side of the center aisle, then only one seat in each pair of seats will be sold. This will limit the total seats to around 75% of Economy and 50% in First/Business class.

5. Airport facilities (restaurants, bars, shops) will continue to slowly open up based on the rules of the state in which they are located.

As the passenger count is increasing, so are the departures per major hub. The highest gain in operations was at 72.3% from Newark Liberty (EWR), which was all but shut down because NJ & NY were very hard-hit by the virus. The smallest gain was from Louisville (SDF) at 1.27%. This is because UPS, the principal carrier at that airport, just kept on flying (actually increased!), so the change in passenger flights didn't have very much impact at SDF. The only major hub that showed a decrease in operations in the past 30 days was Chicago O'Hare (ORD) at minus 3.12%. The overall average was a gain in 24.53% of operations. This is a great sign, not only for the United States markets, but international markets as well.

Finally, I want to congratulate Lance Bartels on his employment with UPS! Lance was my tailwheel instructor, and I am glad to see him advance to this next step. I also would like to thank all the members who have sent me emails on learning more about the airline industry, and offering encouraging words. I appreciate the messages. If you have any questions that you would like answered, please feel free to email me at adam.springmeyer@gmail.com. Fly Safe, and Blue Skies. Adam

Aviation on the Internet

World's largest cargo plane lands at Anchorage: The biggest cargo plane in the world, a Russian AN-225, landed at Anchorage, AK on May 1st during a flight bringing medical supplies from China to Montreal. (The note at the top center says it was "recorded live". Just how else do you make a recording? Dead?) This is an 11-minute video. Save yourself some time. Skip the first 3.5 minutes, and the last 2 minutes. Nothing is really happening during those periods. Sent to us on 5/2/20 by reader Floyd Hollandbeck, who wonders how many

landings they get out of a set of tires. Ed: Do they rotate the tires, rear to front?

<https://www.facebook.com/Ch2KTUU/videos/2600154843574392/>

T-Birds & Blue Angels over NYC, the tribute flight to honor coronavirus frontline workers everywhere. 17-minute video, very well executed, hi-def. From Dan Kiel, 5/8/20.

<https://www.youtube.com/embed/1JESy0CnYPw>

Air Force Museum; drone's eye view; 7-minute video shot from a drone flying inside the United States Museum of the Air Force at Dayton Ohio. Submitted by reader Thomas Miller, 4/24/20. https://youtu.be/m4wLr8_Kaw4

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 Mike Carlson, President, 502-321-6349.

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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.

Association & Meeting Information

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. **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.

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

Freeman Army Airfield Museum board meets the 3rd Tuesday of each month, 6:15 PM, main museum building, Map Room.

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

Local Event Calendar at a Glance

Jun 6*, Columbus Airport Day, BAK

----- BAK Airport Day cancelled

Jun 13, Museum Airplane Ride Day, SER

----- ARD cancelled

Jun 18-20, Aeronca Fly-In, Middletown, OH MWO

----- Aeronca fly-in cancelled

Jul 14 (Tuesday) Hagerstown Flying Circus I61

----- Probably cancelled, since --

Jul 20-26, AirVenture 2020, Oshkosh, WI OSH

----- AirVenture 2020 cancelled

Aug 29* Coles Cnty Airshow, Mattoon, IL MTO

Sep 5, Fly-in/Cruise-in, 7-2, Marion, IN MZZ

Sep 5*-7, Labor Day Fly-In, Red Stewart Field, 40I
(Airshow Saturday only)

Sep 10-12, Midwst LSA Expo, Mt. Vernon, IL MVN

Sep 11-13, KY Sprt Avn Wknd, Rough River, 2I3

Sep 19*, North Vernon Arpt Awrnss Day, OVO

Sep 26*, Madison Air Show, 1PM, IMS

Oct 3*-4*, Bowman Field, Louisville, KY LOU
(Admission fee for this event)

*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.

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Go do it right now!**

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