

PIREPS

PIREPS

August– September
2020

Volume 71, Issue 5

Published bi-monthly by

**Nebraska Dept. of Transportation
Aeronautics Division**
PO Box 82088
Lincoln NE 68501
402-471-2371

dot.nebraska.gov/aeronautics

Governor Pete Ricketts
NDOT Director
Kyle Schneeweis

Aeronautics Commission
Diana Smith, Chair

Michael Cook Tom Trumble
Dick Trail Scott Tarry, PhD

Administration

Director Ann B. Richart, AAE
Deputy Director..... Andre Aman

For Comments/Questions, Contact
david.morris@nebraska.gov
Circulation: 3320

NEBRASKA

Good Life. Great Journey.

DEPARTMENT OF TRANSPORTATION

Thunderstorm Avoidance

By Dan Petersen



Dan Petersen in plane on St. Kitts island, looking for potential storms in the distance.

From early on in our flight training, we have learned about thunderstorms and the associated hazards such as turbulence, hail, lightning, wind shear and microbursts. With knowledge of these hazards you would think that we would be smart enough to avoid them. Yet we still have incidents and accidents involving thunderstorms with both private and professional pilots.

Maybe we have gotten away with it before by flirting on the edges of a storm. You might not be so lucky the next time. The best action is to avoid all thunderstorms, give them a wide berth and have a healthy respect for the might that they can wield.

Avoidance of thunderstorms starts with a good preflight weather briefing. Look at the NEXRAD Radar and determine how extensive and severe the storms are, as well as their general direction of movement. I also look to see if they are general airmass type storms or are formed by frontal activity.

Frontal thunderstorms can extend for hundreds of miles and be very difficult to get around, especially in slower aircraft. I might fly around a line of storms 200 miles long, but in a jet flying 8 miles a minute, it only takes 25 minutes. If you are in a small single-engine aircraft the storm might advance too fast for you to make a run around the end, and the best course of action would be to wait it out on the ground. We wait it out on the ground in the airlines, too

Strategic Planning vs Tactical Avoidance

A lot of us in general aviation as well as the airlines use iPads to download weather while in flight. This is a great tool to help us avoid thunderstorms. Remember that what you see on the screen might be several minutes old and will not exactly represent what the storm looks like now. It probably has moved and

Pireps Is Going Electronic

**Beginning With The
August – September
2020 Issue Of Pireps, The
Publication Will No Longer Be
Available In
Print Form.**

**If You Would Like To Receive
Pireps Electronically, Please
Send A Current Email Address**

To: david.morris@nebraska.gov

might be more severe now than what your iPad shows. Use the iPad and satellite weather for strategic planning to avoid storms.

The only tool in the cockpit to use for tactical avoidance of thunderstorms is the onboard radar. It is the only weather avoidance tool that displays what is happening right now and right in front of the aircraft.

An example of the effective use of onboard radar occurred during a flight northeast of Montgomery, Alabama. It was a line of storms along a cold front for over 160 miles. It showed very strong radar returns with steep gradients and asymmetrical shapes – both indicators of a very severe storm. I always try to get on the upwind side of thunderstorms so that the movement is away from our course. Under this situation, I was on the leeward side due to where we departed. When on the leeward side of a severe storm, we give the storm a 20-mile berth and on the other side at least 10 miles.

I hope you have noticed that I always mentioned using these tools for AVOIDANCE never for penetration. Pilots have gotten themselves into trouble thinking that they could go through that little area of mostly green and a little yellow to only find that the storm got more severe and the hole was no longer there, but it was too late. ■

Time to Submit Nominations for Nebraska Aviation Hall of Fame

By Marcy Meyer

The Nebraska Aviation Hall of Fame began in 1991, created to preserve the memory of extraordinary aviation-related contributions by citizens of the great state of Nebraska. Many individual efforts have been made in the pioneering, growth and development of aviation and space exploration in Nebraska.

The first year there were 11 inductees. The list has grown steadily and now includes more than 121 inductees. The nominee's achievements of service in aviation may have been accomplished worldwide, nationally or in Nebraska. The inductee must be a native-born Nebraskan or have performed significant portions of their service to aviation-related endeavors while a resident of Nebraska. They can be from all walks of life: educators, FBO operators, military pilots, designers and manufacturers, spray pilots, airport managers and administrators. Inductees may be nominated by any firm, organization or individual familiar with the nominee's achievements.

Nominations should be submitted to the Nebraska Aviation Hall of Fame committee and received by September 15.. The selection process by the board takes place in October. The inductees are honored at a banquet during the annual Nebraska Aviation Symposium held each year in January. For more information on the Nebraska Aviation Hall of Fame go to www.dot.nebraska.gov/aeronautics and click on the "Hall of Fame" tab for more information, the application form and a complete listing of inductees. ■

Frontal Thoughts

By Jesse Schulz, NDOT Meteorologist

I think most of us are familiar with weather fronts. We've seen the blue triangles on a map indicating a cold front, or the red half circles indicating a warm front. But have you ever thought about what a front is exactly and how one forms? This article will give some background on weather fronts.

The base definition of a front is the boundary between air masses of different properties, such as temperatures and humidity. A front will form when one air mass moves over another air mass.

A cold front will form when cold dry air from the north pushes south; the boundary between the warm moist air and cold dry air is where you find the front. Since the cold air is denser, it will push the warm moist air up. As the air gets forced up, it will condense to form clouds; therefore, cold fronts are usually associated with the most severe weather.

A warm front is the opposite of a cold front, where warm moist air will replace the cold dry air. In this system, cold air is still more dense than the warm air moving over it. The warm air will still be forced up over the cool air, but not as violently as a cold front. Precipitation is still possible with a warm front, but not to the extent of a cold front.

Both types of fronts are usually associated with a low pressure system. This system results from a disturbance in the atmosphere and is trying to correct it. Air flows counter-clockwise around the low pressure center, and as it gets to the center the air has no place to go but up, which is why all of the hazardous weather comes from the low pressure system.

Cold and warm fronts will usually follow a low pressure system. As the air turns around the center of the low, the cold front will move quicker than the warm front. As the low pressure system becomes more mature, a cold front will overtake the warm front. This is called an occluded front. At the point of occlusion, the storm system is at its peak intensity. However, as the cold air keeps circulating around the lowest pressure, the storm system will begin to weaken and eventually dissipate. ■

Wake Turbulence

By Lt. Col. Randy Douglas

I have had the “joy” of several encounters with the phenomenon known as wake turbulence during my time with the Nebraska Air National Guard and learned some valuable lessons about it. The Aeronautical Information Manual (AIM) states that this is a byproduct of a wing producing lift. Every aircraft generates wake turbulence in flight. The greatest vortex strength occurs when the generating aircraft is heavy, clean and slow. Many times, these are the parameters of operation for our aircraft, the KC-135R.

To give you an idea of the KC-135R’s capability, our max gross takeoff weight is 322,500 pounds. While it is rare for us to take off near this weight, if a mission has us dragging fighters or other aircraft across the ocean, it is possible for us to depart weighing close to that. On normal training missions out of Lincoln, we will weigh around 190,000 pounds. We can do touch-and-go training up to 200,000 pounds and full stop landings at 235,000 pounds. What this means is that when you see one of us in the pattern, there is a good chance that we are producing a fairly strong wake behind us.

Scary Encounter

Before I was selected for pilot training, I started my career in the Air National Guard working on ejection seats of the RF-4C Phantom. While probably the most awesome aircraft to ever take to the sky, the only thing you had to worry about was the noise. When we transitioned to the KC-135R, I was fortunate enough to earn one of the coveted boom operator positions. It was in this position that I experienced the scariest encounter with wake turbulence I’ve had in my 32-year career.

We regularly take off in formation in the KC-135. It is required training for all pilots at least twice every six months, including a large formation of three or more tankers once a year. We normally take off in 30-second intervals. However, if directed, that time can be decreased.

Many years ago, I was the boom operator on a crew that accomplished a 30-second spacing formation takeoff. At around 500 feet above the ground, the aircraft shuddered and began a rapid roll to the right. The pilots were commanding full left aileron with left rudder and the aircraft was still rolling to the right. Passing through about 50 degrees of bank, we finally “fell” out of the wake. The aircraft started to right itself and we were able to climb out uneventfully.

Since I wasn’t a pilot at the time, I was hoping that what I perceived as a pretty close brush with death was an

overreaction. But when both pilots – one a seasoned airline pilot with thousands of hours – looked at each other and exchanged a few expletives, I knew that what we had just experienced spooked us all.

Power Impressive

The power of that wake was impressive, especially considering that the 135 has both ailerons and spoilers for roll control. It seemed like they were not working at all. I have had other encounters since then; it’s almost inevitable when we takeoff in formation. But that one experience has

stuck with me throughout my career. Thankfully, I have never experienced one so strong and so low to the ground since.

How does this pertain to general aviation? As I mentioned earlier, all aircraft generate wake vortices – it’s not just the big ones. A Cessna 152 could experience the same type of roll effect we experienced, following after a larger business jet. The point is to always be ready.

There are mitigation procedures you can practice to help lessen the chances of entering wake vortices. On takeoffs, note where the previous aircraft rotates; that’s where the wake will start. If you can, rotate before that spot and climb out above the preceding aircraft’s flight path. Observe what the wind is doing. Vortex movement near the ground with no wind should move outward, away from the runway centerline. A light crosswind could blow the vortex right back on the runway, right into your flight path.

And remember, it’s not just the takeoff phase, but the landing phase where you could experience wake vortices. Try to observe the preceding aircraft’s touchdown point, and if possible land past that. Lastly, pay attention to the type of aircraft you’re following. Is it bigger than you? What if it’s a KC-135 or even the E-4 (747-200) that comes to Lincoln on occasion to do approach work? Be on your guard.

I’ll close with one final thought: Going upside down on purpose, in an aircraft that is built for it, and you have been trained for, is one of the funnest things I’ve done in aviation. Going upside down not on purpose, in an airplane not built for it, and not expecting it, would be one of the most terrifying. ■



Nebraska Air National Guard’s KC-135R aircraft.

Director's View

Airmail in the United States



Ann B. Richart, AAE

Airmail in the United States has a remarkable history. The first aerial flight in North America occurred January 9, 1793 by balloon. This flight, from Philadelphia to Deptford, NJ carried a personal letter from George Washington to the owner of whatever property the balloon landed on. This was America's first airmail!

In 1911, the US government flew letters from Santa Rosa, CA to Petaluma, CA and from Garden City, NY to Mineola, NY – both on Long Island. The first scheduled US airmail service began in 1918 using Curtiss Jenny aircraft, and operated between Washington, DC and New York City, with a stop in Philadelphia.

Scheduled transcontinental airmail service began on September 8, 1920 – nearly 100 years ago. Our own Bill Moore of Papillion has worked with the United States Postal Service (USPS) and pilots all across the country to commemorate the 100th anniversary of this historic service. Volunteer pilots will fly the original route, from New York to San Francisco, in September.

Some of the airports used in 1920 no longer exist and some are too busy to accommodate the excitement of this flight, so slight adjustments have been made. The 2020 transcontinental airmail route will begin at 7:00 am on Tuesday, September 8, at Republic Airport in Farmingdale, NY. Stops will be made in Bellefonte, PA; Middlefield, OH; Bryan, OH; Joliet, IL; Iowa City, IA; Omaha, NE (Millard); North Platte, NE; Cheyenne, WY; Rawlins, WY; Rock Springs, WY; Bountiful, UT; Elko, NV; Carson City, NV; Sacramento, CA; and end in Concord, CA near San Francisco.

We are proud to have two important stops in Nebraska and are so impressed that Bill was able to put this grand fete together!

Please plan to meet the volunteer pilots at the Millard airport (MLE) on Wednesday, Sept. 9, between 11:45 and 12:15 pm or at the North Platte Regional Airport (LBF) that same day between 1:45 and 2:15 pm. For more information, go to airmail100.com. ■



Nebraska DOT Airport Inspection with Drones

By Jon Starr, BTSD and Dave Lehnert, Aeronautics

Nebraska DOT has been implementing a UAS (Unmanned Aircraft System) program over the past year. In doing so, we are using drones for a variety of tasks, and evaluating how well they increase our efficiency, provide better quality data, and enhance safety; not only for NDOT employees but the public as well.

As a result of the merger of Aeronautics and Roads to create the Nebraska DOT, we've been working together to implement UAS and other technologies into our airport inspection process. The goal of this investigation is to evaluate traditional inspection processes vs. processes using the UAS to determine if we can meet the overarching goals of efficiency, data quality and safety. The airport inspection process includes evaluating runway approaches for obstructions, identifying which obstruction is the controlling obstruction, whether there are any close-in obstructions, and identifying any objects that violate the Primary Surface or the Transition Zone.

We recently performed UAS missions at the Creighton airport (July 15) to support this effort. This airport was one of a few airports that were considered good sites to perform the initial drone operation and evaluation. It was chosen based on current conditions, and because a recent inspection had been completed using traditional methods with which we could compare results. The operation involved members from the NDOT UAS team (Jon Starr and Shawn Jording), as well as Aeronautics Division team members (Dave Lehnert and Thomas Jacobson). In addition, the team coordinated with the Creighton Airport Authority, which published a Notice to Airmen (NOTAM) regarding the operations and timelines.

The team utilized a DJI Phantom 4 RTK system to gather data on all four approaches, as well as the entire airport property. We are analyzing the data and looking at different workflows with technologies to produce deliverables that satisfy the inspection requirements. Early analysis has shown that the data acquired via the UAS is proving to be highly accurate, more efficient and more easily understood compared to traditional methods of visual observation. We will continue to work on this proof-of-concept and provide an update on our findings in the next edition of this newsletter. ■



Jon Starr prepares drone for initial airport inspection.

Unintended Engine Start

By David Morris



Hand propping an airplane

As I think about the many “safety practices” pilots exercise when around aircraft, while flying or securing an aircraft after a flight, I am reminded about the recommended procedures we utilize while hand propping an airplane. Pilots are well aware of safety practices, and I think we all agree that most of us continually think about safety while in or near an aircraft.

I was present when an aircraft was being hand propped. There seemed to be good communication between the individual at the controls (student) and the individual (flight instructor) propping the airplane. As the flight instructor verified with the student in the aircraft that the ignition was in the proper position (off), the instructor began to position the propeller to the desired position (compression). And, as the instructor stood directly in front of the propeller, the engine started.

Point here is: While we believe we have communicated properly, and the instructions are understood by all persons involved, ALWAYS double check when propping an aircraft. No one was injured, but what a setup for disaster.

Recently, an individual was propping an airplane. The key had been removed from the ignition during positioning of the propeller. The engine started. What could have possibly allowed this to happen?

Turns out, the ignition and key were worn enough that the key could be removed from the ignition while in one of the “on” (magneto) positions. Adding to the confusion, the ignition switch was positioned in the panel as such that from the pilot’s view, when the key appeared to be in the “off” position, it was actually in the left magneto position.

Unfortunately, this incident ended in a fatality. As we continue to enjoy the experience of piloting an airplane, let’s all remember safety cannot be overdone. ■

New FAA Video Series Aims to Reduce Runway Incursions

By Tom Frakes, Runway Safety Program Manager, FAA

While high-profile runway safety incidents involving commercial (part 121) aircraft make the headlines, safety data shows that general aviation (GA) pilots are involved in a vast majority of these events. One of the common contributing factors to these pilot errors is a lack of awareness or misunderstanding of local runway and taxiway configurations.

To help reduce the occurrence of wrong surface incidents, runway incursions and other high-risk events at U.S. airports, the Federal Aviation Administration (FAA) has developed the “From the Flight Deck” YouTube video series, that is targeted to GA audiences.

Each 4-5 minute video focuses on approach, landing and taxi scenarios at selected U.S. airports. The videos feature high-definition footage, along with professional graphics, animations, runway diagrams and narration to help identify and illustrate airfield hazards and hotspots.

All “From the Flight Deck” videos are available at faa.gov/go/FromTheFlightDeck and hosted on the FAA Youtube Channel (@FAANews).

Lincoln Airport is featured in the initial roll-out of these videos featuring large and small mixed-use airports with a variety of traffic types. Simply select the LNK Airport from the U.S. Map of filmed locations to see the video, current airport charts, construction news and other information that pilots should “Know Before You Go.” New airports will be added throughout the year; subscribe to the FAA Youtube channel to see the full series and receive notifications when new videos are available. ■



Silence

By David Moll

Every once in a while, I run into a pilot who thinks the less they talk shows some sort of authority. Strange way of showing teamwork, isn't it?

Many years ago, while making a huge detour for thunderstorms, I told my co-captain it looked like a pretty large hole had formed to our 2:00 o'clock position and asked what he thought about it. Absolutely no answer. Several minutes later, Air Traffic Control (ATC) said airplanes were getting through the hole at our 2:00 o'clock position and asked if we wanted to take a look at it. I asked him how he wanted me to respond to ATC. Again, no answer. ATC came back and asked for our intentions, so I responded: "You've asked him twice, I've asked him twice, and he hasn't given either one of us an answer." Had I had more time to say that better, I would have, but it surely got his attention.

After the flight, the Chief Pilot got involved to clear the air. He did so very quickly by saying, "Our Operations Manual clearly says if this pilot was asked a question three times, and he did not respond, he clearly showed incapacitation." What is the lesson in this? If he had answered "I don't agree," or "I'm thinking," would that have been sufficient? Absolutely, because then it's solely my responsibility to find out why he doesn't agree, or what other information would be helpful. In this case, silence solved nothing.

Frequency Change

There are times when 5-10 seconds of silence is needed. When changing frequencies, far too many pilots just flip the switch and start talking. On my last trip I heard ATC giving a clearance, and so many pilots tried to check onto the frequency at the same time. Their argument: ATC has approved the frequency change, so they know I'll be checking in. I agree, but this does not mean the other 30 airplanes on the frequency really care about you checking in, because it's their job to hear their clearances clearly without you butting in. This is another trend that solves nothing.

With the age of today's corporate pilots increasing by the day, hearing aids are now commonplace. My wife has worn hearing aids for most of her adult life. If she doesn't hear something I said, it's not her fault – it's because I didn't do my job. All young pilots need to "hear" basic common courtesy on how to talk to others whether they wear hearing aids or not. First, look at the person. Next, enunciate clearly and get rid of the mush mouth because if you're not moving your lips, even people with excellent hearing can't understand you. Today (August of 2020), wearing face masks sadly gives us the exact same barrier. Lastly, be patient and if you have to say it again, so what. As the saying goes: "It is better to be safe than sorry." ■

The Anxiety of Being a Third Wheel

By David Morris



Photo Courtesy of Wikipedia

Here is a bit of physics that perhaps can be applied to our general aviation activities. As we all know, a bicycle has two wheels. When these two wheels are on the ground, they create a line. If we could add a third point, we would have established a plane; not an airplane, but a flat surface that is created by a straight line and is referenced to a fixed point in space.

So, what does this have to do with general aviation? When the bicycle is standing on its two wheels and we let go, the bicycle tends to fall over. If we add a third point, maybe a kickstand, the bicycle continues to stand after we let go. Airplanes typically have three points (wheels), which is what prevents the airplane from falling over when the engine stops and the propeller is no longer turning.

The Wright Flyer had no wheels, but wooden skids for landing. As Wilbur and Orville got to the Model B, wheels had become a standard. The skids (main landing gear) were replaced with wheels; however, the rear skid remained for some time. A wheel-equipped dolly was used at the rear skid to maneuver the airplane on the ground. Then, someone had the idea to remove the rear skid and replace it with a wheel.

Considering Newton's First Law of Physics, some of us know what an occasional wild ride is potentially in store for us while flying a conventional gear (tailwheel) airplane. I cannot imagine the excitement experienced by some pilots before it was established that an object will continue in a straight line until it is acted upon by an outside force, i.e., crosswinds, incorrect rudder inputs, etc.

Before much thought was given about the center of gravity being to the rear of the main landing gear, and brakes being of little use on the moist grass landing areas, I think how exciting it must have been for some pilots to discover a maneuver which became known as the ground-loop. To reword some statements shared by these early pilots, if you fly conventional wheel (tailwheel) airplanes, either you've experienced one of these ground loops, or there is one in your future.

So, take this advice from someone who admits he has performed this maneuver unexpectedly: Ensure you are well trained in the aircraft that has its third wheel to the rear of the aircraft before setting out on your own and discovering the anxiety of being a third wheel. ■

Hospice Care in a Cessna 150

By Tom Winter

"Look out the window, Frank, and watch our shadow get farther and farther away from the runway! It's a way we pilots have of seeing ourselves climb up into the sky."

But my big brother, Frank, and I are not in my Cessna 150. I'm in a chair next to his gurney. He lies there gaunt, barely able to speak, his left arm shaking with Parkinson's. It never stops, except when he is sleeping. His last post-retirement job was as a line guy at Lansing Municipal, in Michigan. He loves airplanes, even though his only "flying" was on his motorcycles. He lost the Lansing Airport line job when they realized the old man that they were trusting to tug the jets around had Parkinson's.

Now, it has come to hospice care.

I drove 800 miles to be at his side while my colleagues at the university covered my classes.

I had never taken him flying, but I realized that I actually could; I painted us a word video of a flight, narrating every step, beginning at the gate.

"Frank, we have to wait here for a minute till the gate closes behind us. My hangar is right in the middle of this row, and here we are, Frank, my home away from home. We'll step through the little door and then open the big one."

"Frank, would you pull the chain to open the hangar door? While you're doing that, I'll start the preflight."

The open hangar door lets the morning sunlight into the hangar.

"Just look, Frank. No wonder I call her The Blue Bird of Happiness! 1967 Cessna 150, and it's mine. Ours today!"

I had Frank help me pull the Blue Bird of Happiness out into the sunlight. I talked him through the seatbelt, the shoulder straps, then...

"Here, put on your headset, and I'll turn on the intercom. We'll see if it's working today." [Pause] "Hear me okay?" (Damned if he didn't nod yes!)

"Now, let's see if the engine starts. Prime twice, then pull the starter. Now Frank, just look at that T-handle starter pull, and tell me where you've seen it before. Yes! That T-handle is straight out of a 1950 Studebaker!" [Engine starts] "Listen to that engine. Sounds like a tractor, huge cubes for torque at low revs, and 20 more horses than my old Studebaker Champion. Yup, 100 horsepower instead of 80. Goes faster, too!"

I talked us through the clearance, the taxi clearance, the run-up, mag check, then...

"Lincoln Tower, Cessna 2885 Sierra ready for takeoff. 85 Sierra, Cleared. Fly heading 320."

"320, Frank, that's almost exactly on course for Columbus. We'll see some of the most interesting sights in eastern Nebraska. We're rolling out to the runway end, gently, gently push the power home, and even with two up, we'll be in the air before that first taxiway. Yes. Wheels up! We're flying! Frank, I've done this countless times, but the thrill never fades."

I described the landscape between Lincoln and Columbus, painting puffy clouds in the sky, the sand-braiding Platte and its confluence with the Loup River. I dialed the OLU AWOS, and got Columbus Automated Weather. Altimeter 30.2. Sky condition, clear. Wind, 280 at 10, Gusts, 17.

"Here, Frank, look at my compass rose. We'll land on 14 or 32, and you see the choice is 32, but with a 10 knot crosswind 40° off the runway. This will get my attention, so stay quiet while I deal." [Radio call]

"Columbus traffic, Cessna 2885S turning final, 32, Columbus."

"I'll crab most of the way down, then put the upwind wing low while I flare. I'll let down 20° of flaps. Time to flare! Don't let it land, don't let it land, don't (squeak) And we're down!"

"And look, you'll appreciate this, Frank, there's a line guy guiding us to parking. That's one of the good things about Keith Harbour. Here's Keith himself — he often greets me in person."

"Mornin' Keith! Keith, this is my big brother, Frank. Frank restores and sells Triumph motorcycles. Frank, Keith restores and sells Chinese fighter training planes."

We walk to the Avcraft hangar. I introduced Frank to Frank Cuba and Paul Muhle.

We took off, following the railroad tracks from Columbus to Seward. I named the towns along it, like pearls on a string. I narrated the SWT pattern, I narrated the landing and introduced Frank to Greg and Terri Whisler.

After that, I was going to do the take-off and the flight back to Lincoln, and have Frank help me put the plane away.

But I looked at my big brother. The palsied arm was still. Frank had fallen asleep, dreaming, I hope, of flying. ■

FREMONT ROTARY CLUB

Fly-in Breakfast

Sunday, August 30, 2020

7:00am - 1:00pm

Fremont Municipal Airport
1203 W 23rd Street



RUNWAY 14/32 RT

UNICOM: 122.80

Breakfast - Boy Scout Troop 104 serving pancakes & sausages!

Meals will be individually served & safe social distancing practices will be used

Tickets \$5.00 • Pilots FREE

Tickets available from any local Rotarian
or call 402-212-3963

Tickets may also be purchased at the event.

Western Nebraska Regional Airport

By Ann B. Richart, AAE



Western Nebraska Regional Airport (BFF) in Scottsbluff will be rehabilitating the full length and width of their crosswind runway thanks to an Airport Improvement Program grant from the Federal Aviation Administration (FAA). The 8,002 foot Runway 05/23 has been instrumental in accommodating airlines diverted from Denver International Airport during inclement weather. The airport has experienced dramatic growth over recent years with passenger traffic increasing nearly 500% since 2017. A study being completed by the Nebraska Department of Transportation estimates that the annual economic impact of the Western Nebraska Regional Airport is \$86.4 million. FAA's investment in this runway project will allow BFF to continue to support the economic vitality of the Scottsbluff region. ■

Things We Learn

By Kim Stevens

I didn't want to plagiarize the title of this column by calling it "I Learned About Flying from That," but the title is apt.

In the Spring of 1979, the U.S. was experiencing a fuel shortage – that included aviation fuel. This was due to the Iranian Revolution. Even though this "oil shock" resulted in a global decrease of only 4%, widespread panic resulted in driving the price far higher. It was suggested by one source that price controls may have also created an incentive to withhold gasoline from the market when the prices of crude oil were rising rapidly. That proved to be true in the Midwest and impacted me directly.

I was working on my private rating during this time, and on June 21st of that year, took my first solo long cross-country flight. My route was from Omaha to Fort Dodge, Iowa, to be followed by a leg to Sioux Falls, South Dakota, and then back to Omaha.

The headline in the paper the next day could very easily have read "Student Pilot Fails to Factor Head Winds, Lands Short of Destination." The flight prep and first leg, as I recall was normal, so let me fast forward to arriving in Fort Dodge. I taxied to the Fixed Base Operator (FBO), asked for some fuel and for someone to sign my logbook. The logbook was signed, but to my dismay, they refused to sell me fuel. It seemed because of the fuel shortage, the FBO was only selling to local pilots – or so they said.

The prudent thing to do might have been to check in with my flight instructor; however, after doing some quick calculations, I figured I had enough fuel to either return to Omaha or push on to Sioux Falls. I don't recall if it occurred to me to call the Sioux Falls FBO to see if they would sell me fuel. I think I just assumed that being a larger airport, it wouldn't be a problem.

Strong Headwind

Undaunted, I took off for Sioux Falls. After I had been in the air awhile, I realized I wasn't making very good time. I thought I remembered someone saying that you could stay in the air in a Cessna 150 with full tanks for three-and-a-half hours, so I wasn't too concerned. I started looking at the fuel gauges, however, and watched the needles start to drop in both tanks. Knowing I began the trip with full tanks (visually inspected of course), knowing the total number of gallons in each wing was 13, and knowing the fuel burn was roughly 6.0 gallons per hour, I continued on. However, it wasn't long before I realized I had a pretty strong headwind and began checking the chart, locating

each airport along the way, and re-evaluating whether to continue or land early. I continued to push on.

As Sioux Falls came into view, I knew it would be close, but felt more comfortable as I communicated with the tower and lined up on final. Once I crossed the fence, I took a deep breath. I taxied to the FBO, shut down and remember pausing a moment before walking into the building.

I remember having my logbook signed and waiting for the line guy to come in and report how many gallons he had pumped, so I could pay the bill.

When he walked in, he made a special point to walk right up to me, look me in the eyes, and calmly tell me that he had just put 12 gallons in each wing. He didn't have to say anything else. The way he communicated that bit of information to me was crystal clear.

For a while I'd tell myself that I did OK; I made the calculations, considered the alternatives, but 41 years later the memories of that flight are still with me; I did not do OK, I was cutting it too close – I was unsafe. I also was reminded that the usable fuel in a C-150 with standard tanks is 22.5 gallons. Bottom line, I learned some early lessons on that flight, lessons that have gone on to serve me well as I earned my commercial and instrument ticket, and for the duration of my time in the cockpit. ■

Events Calendar

**York Airport (KJYR),
EAA Chapter 1055 Fly-in breakfast
(free-will donation) on the
1st Saturday of the month, 8:00-10:00 AM.**

**Crete Airport (KCEK),
EAA Chapter 569 Fly-in breakfast
(free-will donation) on the
3rd Saturday of every month, 8:00-10:00 AM.**

**Fremont Rotary Club Fly-in breakfast
Sunday, August 30, 2020, 7:00am - 1:00pm
Fremont Municipal Airport
1203 W 23rd Street**