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NEBRASKA

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DEPARTMENT OF TRANSPORTATION

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The Amazing Flying Savidge Brothers

By Penny Rafferty Hamilton, Ph.D.



In 1911, the seven Savidge brothers teamed up to make aviation history. (L-R) Phil, John, Dave, Joe, Louis, Matt, George. (Explore Nebraska History)

Imagine it is 1907 and your large family is living on a homestead in Ewing, Nebraska, in Holt County. Without electricity, you work by candlelight and oil lamps. Your family uses a wood stove for heat and cooking. No telephone, no radio, no TV, no cell phone, and no internet.

This was the way of life for the Savidge family. Their seven sons were always tinkering with the farm equipment. Neighbors knew they were always improving operations on their homestead.

In late 1907, they began to experiment with a "flying machine." They studied the hawks which often circled the homestead. They constructed model gliders. Over time with lots of experiments, they perfected a full-size glider. At first they launched on top of the barn. With the help of the local Ewing hardware store and reading lots of magazines and newspapers about the Wright Brothers, they began building models with powered flight.

The whole family helped. The Savidge women sewed materials for the fabric wings. Sometimes younger sister Mary rode on the plane's wings to stabilize early test flights. Even the one-eyed barn cat was used in test flights.

The pilot sat on a seat salvaged from the family farm mowing machine. The biplane frame was constructed of wood and metal tubing. The wings were covered with muslin cloth, which was heavily shellacked. Incredibly, the young men were able to purchase the engine, propeller, and wheels directly from a catalog from an aeronautical supply company back east.

New Flying Machine

Their biplane looked very similar to those of famed aviation pioneer, Glenn Curtiss. The audacious Savidge brothers invited the whole community to a public demonstration of their new flying machine. Wow! This was big news. The date was Sunday, May 7, 1911. Neighbors dressed in their Sunday best, and many arrived by horse and buggy to witness this mind-blowing event. It was a huge success.

Brother Matt was the pilot that day, but it took all the brothers to launch, maintain, repair, and share in piloting. Word spread quickly about the amazing Savidge Aviation Team. In no time, they were booked for county fairs. The intrepid Nebraskans spent five years barnstorming throughout the Great Plains. Adventurous Matt even developed a method of skywriting, which always wowed the crowds.

The Savidge brothers built and flew three different biplanes during those years. Their legendary accomplishments are published in Duane Hutchinson's book, *Savidge Brothers, Sandhill Aviators*. After a wildly lucrative barnstorming tour in Texas, the brothers returned to the Ewing homestead to rest, repair, and improve the plane. Then, on June 17, 1916, tragedy hit the enterprising family. Matt was testing the plane when he perished in the crash.

The family demanded that this dangerous pursuit end. Sadly, the brothers agreed. The planes were dismantled. Some of the parts were stored in the barn, but many were used on the homestead as needed for the farm equipment. In early 2008, the Flying Savidges were inducted into the Nebraska Aviation Hall of Fame. The town of Ewing commemorates their accomplishments with an historic marker.

Astronaut Buzz Aldrin said, "Unfortunately, pioneers will always pave the way with sacrifices." That was certainly true of the Savidge family of Ewing.



Historic marker on South Spruce Street in Ewing shares the Savidge brothers' important aviation accomplishments.

Magic Carpet

By Dan Petersen

One of my best experiences has been traveling to new and exciting destinations that I have never visited before, using my aircraft as a magic carpet. I had flown to every country in Central America except one, Panama. Last summer I finally made it to Panama City, thus completing that milestone. My wife Josette joined me and we visited all the sites, including the Panama Canal, which was amazing.

Flying into an unfamiliar airport can be challenging, depending on terrain, complexity of the airport, airspace, international destination, or if it is a busy airport with a lot of traffic. With the airlines, our destinations are limited and, more than likely, one of the two or three pilots have been there before and can provide some advice from their previous experience. The airlines also have everything packaged together for the pilots.

In General Aviation, the airports that we can operate into are virtually unlimited, and often there is only one pilot onboard. We have specially tailored charts for our specific airline and destination that provides a wealth of information, including special techniques or any "gotchas" to help us operate into a particular airport. We also have engineering departments that ensure that we have the capability to operate into each airport with arrivals, approaches, takeoffs, and departures. In General Aviation, it is all on us as the Pilots-In-Command.

In previous articles, I have mentioned a common theme: preparation and planning. Use current charts to plan your route, take special note of any challenging terrain or airspace that you may encounter, and determine how best to navigate through those challenges. Aircraft performance could be especially problematic if you are flying in mountainous terrain or if you are unable to fly to your intended destination, with less options for a diversion. There are many excellent commercial products available that can show you what the airport looks like, including an aerial photo and helpful information about operating into and out of the airport.

For those of us in General Aviation, we may have to work a little harder than airline pilots to gather all of the information, but it is just as crucial for us to be thoroughly prepared to operate safely to any airport. Fly safe and enjoy wherever your magic carpet takes you. ■

Dr. Hamilton writes about unique Nebraska trailblazers. She is a graduate of the University of Nebraska and learned to fly at BIE 29 years ago. She is the author of several aviation books.
www.PennyHamilton.com ■

Changes Ahead in 2022



NOTAMs

The Federal Aviation Administration (FAA) has changed the nomenclature in the acronym NOTAM. *Notice to Airmen* is now *Notice to Air Missions*. This change was codified in **Order 7930.2S, Change 2 Notices to Air Missions**, which was issued December 2, 2021. Since the acronym hasn't changed, you won't need to think about this one much. This language change was recommended by the Federal Women's Program Manager at the FAA. The Federal Women's Program was created in 1969 when gender became a prohibited form of discrimination in Federal employment. So more than 50 years later, *Airmen* is changed to *Air Missions* in NOTAMs. However, the technical term for *pilot* remains *airman*.

5G

5G is the Fifth Generation technology standard of broadband cellular networks. For our cell phones, 5G should be a good thing. It should provide faster speeds and be able to carry more information. 5G networks operate on frequencies very close to the range used by radio altimeters. The FAA, Boeing, Airline Pilots Association (ALPA), International Air Transport Association (IATA), and others have been noting concerns of impacts to aviation safety that could be caused by this radio interference with 5G networks. The FAA and the Federal Communications Commission (FCC) are working to mitigate any possible interference, such as limiting 5G access near airports, but a mutually acceptable solution has not yet been found. FAA has issued Airworthiness Directives (ADs), which would change the frequency that aircraft radio altimeters use to eliminate the possibility of interference. Here is a partial list of aircraft systems that may be impacted by 5G interference:

TAWS-A	Windshear Detection System	Primary Flight Display of height above ground
EGPWS	Envelope Protection Systems	Alert/Warning or Alert/Warning Inhibit
TCAS II	Altitude Safety Callouts/Alerts	Stick Pusher/Stick Shaker
Take-Off Guidance Systems	Autothrottle	Engine and Wing Anti-ice Systems
Flight Control (control surface)	Thrust Reversers	AFGCS
Tail Strike Prevention Systems	Flight Director	

On December 23, the FAA issued possible Sample NOTAMs that may be issued if a mitigation to the radio interference can't be developed. Omaha's Eppley Airfield (OMA) is one of the airports that may be impacted. If you fly an aircraft that uses a radio altimeter, please check your NOTAMs and be prepared to make alternate arrangements if your instrument approach or other system cannot be authorized. If you are flying commercially through OMA, please be aware that there may be some delays associated with this interference. Also, just to be clear, 5G does not cause COVID infections, does not reduce our immunity to COVID, and is not a plot by Bill Gates to infect all of us.

New Year's Resolution

As we begin the new year, I'd like to leave you all with a note of hope in the form of this quotation from Alfred Lord Tennyson: "Hope smiles from the threshold of the year to come, whispering it will be happier." ■

UNO Aviation Students Attend Southwest Airlines Leadership Day

By Scott Vlasek, UNO Aviation Institute



Destination 225°! Nine Mavericks have charted an exciting professional flight career development course with Southwest Airlines.

From left to right: Owen Brennan, Lucas Freitas, Braden Bean, Joshua Chipman, Keisuke Takagawa, Charles Earhart, First Officer Jennifer McIntyre, Kaleb Ricke, Kenneth Thomason, and Daniel Adams

Nine UNO Aviation students who have been accepted into the Destination 225° program had the opportunity to attend a Leadership Day hosted by Southwest Airlines at the airline's Training Center in Dallas, Texas. Prior to the visit, the students each successfully completed the ADAPT Assessment tool to see if they fit into the Southwest culture. They also passed an interview with the Southwest pilot hiring board.

The Leadership Day represents an initial "touchpoint" for students accepted into the program to visit the Southwest training facility and meet with the program's lead mentors and other Southwest representatives from the airline's flight operations division.

Southwest Airlines currently partners with four university aviation programs and three industry partners to provide an accelerated career path for students who participate in the program. Students who successfully complete their degree programs will flight instruct for approximately two years or until they meet a 750-hour flight time requirement. Graduates are then placed at Jet Linx Aviation or one of the other industry partners to fly business jets or Boeing 737s in charter operations for two or three years before they move on to Southwest Airlines and begin their Part 121 Carrier careers.

The partnership is a tremendous opportunity for students, UNO's aviation program, Jet Linx Aviation, and Southwest Airlines. The demand for pilots for scheduled Part 121 air carriers like Southwest Airlines and Part 135 charter operators like Jet Linx Aviation is growing. Despite the impact of COVID, the demand for air travel is returning much sooner than some analysts predicted, and Destination 225° is ideally suited to prepare students at the UNO Aviation Institute for these opportunities.



UNO students explore training devices at Southwest Airlines Training Center in Dallas, Texas.



Destination 225° program mentors answer questions during classroom session.

The focal point of the Leadership Day was a daylong classroom session with two Destination 225° lead mentors, including First Officer Jennifer McIntyre, who has been at Southwest for just over two years and is a 1998 graduate of the University of Nebraska at Omaha Aviation Institute. Students learned about Southwest's Operational Priorities, which emphasize safety above all else, while balancing the airline's commitment to low-cost operations, reliability, and hospitality. The students also learned about Risk and Resource Management, which guides decision making across the airline.



UNO students participate in Leadership Day activities.

Students also heard from Southwest Airlines senior management, including David Retnam, Senior Manager of Flight Operations, and Bob Waltz, Vice President of Flight Operations. Both spoke about the Destination 225° pathway, the current state of the airline industry, as well as current and future needs for pilots at Southwest. Students toured the Southwest Airlines Training Center, taking a close-up look at a number of state-of-the-art flight simulators and training devices, as well as a full cabin simulator that flight and cabin crews use to practice emergency procedures, including in-cabin fires and emergency landings. Students also viewed Southwest Airlines artifacts and memorabilia displayed throughout the facility dating back to the airline's beginnings in 1971.

The aviation industry is once again poised for tremendous growth opportunities. While finding qualified pilots is the goal of the Destination 225° program, there is also a need for flight attendants, aircraft mechanics, maintenance specialists, dispatchers, air traffic controllers, airport operations supervisors, training personnel, and more. Successful companies like Jet Linx Aviation and Southwest Airlines are thinking outside the box to recruit and retain talented employees.



Students learn about the full cabin simulator during their tour of the Southwest Airlines Training Center.

The Destination 225° program and Leadership Day gives students a sense of belonging, as well as a clear pathway to starting their career. 225° is not just a compass heading, but a Destination for success. Southwest Airlines and Jet Linx Aviation are charting a new direction for students in the University of Nebraska at Omaha Aviation Institute. ■

Photos courtesy of UNO Aviation Institute



Thank you Scottsbluff!!

Nebraska Wing Civil Air Patrol extends our sincere appreciation to the following for making the JROTC Flights a success!!

42 Amazing young people and their parents for allowing us to fly them!!

Allison Baer, Lilliana Abshire, Jacob Green, Daniel Vidlak, Samantha Kite, Keane Meyer, Jacob Zwetzig, Dayce Sutton, Natalie Zeiler, Ricarda Littlewalker, Reese Abts, Mia Sutton, Emma Rogers, Tehya Baldwin, Elijah Lara-Johnson, Cody Sherfey, Michael Mickey, Ashley Lemoine, Norah Fleming, Lucy Peterson, Anastasia Tkachenko, Patricia Moreno, Caleb Schanaman, Aaron Coffman, Brody Burgess, Elizabeth Roberts, Alex Martinez, Hayden Perkins, Shelby Mathson, Danara Abshire, Nolan Lambertson, Jaron Lambertson, Wyatt Haught, Payton Woodring, Jewelle Craig, Sunny Edens, Charley Edens, Thomas Eitler, Ashlee Hall, Lilian DeWitt, Hayden Heine and Ethan Elam.

Western NE Regional Airport — Raul Aguallo & Lorraine Greenwalt

Roma Italian Restaurant— Noti and Preston

Scottsbluff High School JROTC—Colonel Jeff Johnson & Sgt Bill Runk

Colorado Wing Civil Air Patrol - Nebraska Wing Civil Air Patrol

- Steven Balsom
- Richard Calahan
- Lori Fussell
- Michael Mitchell
- Sanjay Tyagi
- Mitchell West
- Chase Whitney
- Robert Yusko
- Charles Kuskie
- Josef O’Hearn
- Charles Moe
- Vernon Platt
- Brian Schlueter
- John Sidle
- Dean Dike
- Debra Dike
- Steven Hicks
- Celina Pennisi
- Donna Tope
- Stephen Weinhart



Civil Air Patrol Celebrates Successful JROTC Flights

By 1st Lt. Brian Schlueter, Director of Operations, Nebraska Wing Civil Air Patrol

On Saturday, November 6, members of the Nebraska Wing Civil Air Patrol (CAP) gathered in Scottsbluff, Nebraska, to provide flights for 42 members of the Junior Reserve Officer Training Corps (ROTC). It was a great day for flying in the friendly skies out in western Nebraska!

With the ongoing pilot shortage, it was exciting to see these CAP cadets on their very first adventure in learning about aviation and flying. As one could imagine, Denver Center was very busy tracking the cadet flights with flight following, a CAP safety requirement for orientation flights.

We had 8 aircraft, with 13 pilots and a great ground crew from Colorado and Nebraska who did an awesome job. We also had a great group of volunteers who contributed to a successful event. As Director of Operations, it was an honor to do volunteer service for our cadets. We are very proud of them all! ■



Big Blue Express Case Determines Airplanes Subject to Sales and Use Tax

By Daniel J. Hassing

In July 2021, the Nebraska Supreme Court decided an important case on the Nebraska sales and use tax and how it is applied to aircraft. In the case, *Big Blue Express, Inc. v. Dep't of Rev.*, 309 Neb. 838 (2021), the supreme court concluded that the "sale for resale" exemption found at Neb. Rev. Stat. § 77-2701.34 did not exempt an aircraft from sales and use taxes when the owner failed to show that it had purchased the airplane to lease it in the normal course of business with the intent to result in gain, benefit, or advantage to the owner.

As with all legal questions, the case turned on the unique facts presented by the situation. The taxpayer, Big Blue Express, was a Nebraska corporation with the same individual serving as the corporation's president, treasurer, and director. The corporation was wholly owned by another corporation and the sole shareholder of that corporation was the same individual who was Big Blue's president, treasurer, and director. The sole shareholder also had business relationships with several other entities.

Big Blue purchased a two-thirds interest in a business jet from a seller in Kansas without paying any sales or use tax in Kansas. Another entity, Robinson's Hanger, purchased the remaining one-third interest. Big Blue and Robinson's Hangar entered into a joint ownership agreement. When Big Blue applied for insurance on the aircraft, it indicated that the plane would not be operated for hire or reward.

After purchasing the aircraft, Big Blue entered into use agreements with other entities that were affiliated with its president. The use agreements all provided that the plane would be rented at \$1,300 per flight hour and the lessees would be responsible for providing a pilot and crew and expenses such as fuel, insurance, and hangar costs. The agreements provided that Big Blue would send invoices to the lessees and that those invoices would accrue interest if not paid within 15 days.

Big Blue, however, often sent invoices in a lesser amount than the agreement dictated and did not send them until the end of the year. Even more, the lessees did not pay the

invoices until the Department of Revenue contacted Big Blue about its sales tax returns. Indeed, evidence

Daniel J. Hassing is a partner at the law firm of Lamson, Dugan & Murray, LLP in Omaha. Dan is a member of the firm's transportation group, which advises clients on issues arising in the railroad, trucking, and aviation industries. Dan is a remote pilot and a private pilot working towards his instrument rating. He is licensed to practice law in Nebraska, Iowa, and Illinois.



Nebraska Supreme Court

presented to the court showed that many invoices went more than a year without being paid and that when the invoices were paid, they were paid with funds from an investment account owned by the president of Big Blue and his wife.

Testimony showed that Big Blue would have had to lease the aircraft for 200 hours a year at a rate of \$1,300 an hour to break even on operating costs. The evidence, however, showed that Big Blue invoiced about 237 hours of flight time over the course of two years, or about one-half of what was necessary to break even on the plane. Despite the obvious lack of business necessary to break even on the plane, Big Blue made no efforts to market the aircraft for lease.

In 2014, after an investigation, the Nebraska Department of Revenue issued a deficiency determination after concluding that the purchase of the aircraft was not exempt from taxation. The Department's deficiency was calculated at 7% of two-thirds of the purchase price of the aircraft plus penalties and interest. Big Blue protested the determination and sought administrative review. The Tax Commissioner found that Big Blue was liable for the tax and affirmed the Department's assessment. Big Blue then appealed to the district court, which affirmed the Tax Commissioner's decision, and then to the Nebraska Supreme Court.

The supreme court began by explaining that Nebraska imposes a tax on each item of tangible personal property in the state at some point, unless the item is specifically excluded from taxation. For items purchased in Nebraska, a sales tax applies. For items purchased outside of the



Photo by Scopio from Noun Project

state, a use tax applies. Because it was agreed that Big Blue purchased the airplane in Kansas without paying tax in that state, the question before the court was whether an exemption to the use tax applied in Nebraska.

The principal argument of Big Blue was that it did not owe use tax because its purchase of the airplane was a "sale for resale." Because a "sale for resale" is not a retail sale as defined in the statutes, sales for resale are exempt from sales and use tax. See *Intralot, Inc. v. Neb. Dep't of Rev.*, 276 Neb. 708 (2008). Neb. Rev. Stat. § 77-2701.34 defines "sale for resale" to mean "a sale of property or provision of a service to any purchaser who is purchasing such property or service for the purpose reselling it in the normal course of his or her business, either in the form or condition in which it is purchased or as an attachment to or integral part of other property or service." As an example, the statute indicates that a sale for resale includes "a sale of property to a purchaser for the sole purpose of that purchaser renting or leasing property to another person, with rent or lease payments set at a fair market value."

In reaching its decision, the supreme court relied on cases that had interpreted similar statutory language in analogous situations in Ohio and Michigan. Drawing from these cases, the supreme court explained that to determine whether the aircraft was being leased in the normal course of the taxpayer's business, a court may consider factors such as whether the leases are entered into with consumers who are related to or associated with the taxpayer, whether terms of the leases and the parties' conduct reflect an arm's-length business transaction, whether

the leases produced reasonable revenue for the taxpayer's business in relation to operating expenses, and whether the taxpayer held itself out to the public as being in the business of leasing the property.

Applying these factors to the evidence before it, the supreme court concluded that the taxpayer was not entitled to the exception under § 77-2701.34. The court found that the taxpayer's purchase and leasing of the aircraft was not pursued with the object of its gain, benefit, or advantage. Among the salient facts, the aircraft was leased principally to the sole member of Big Blue or his related entities. Big Blue made little effort to regularly invoice customers and collect amounts due on those invoices. When Big Blue did lease the aircraft to other entities, Big Blue's sole member paid those invoices from his investment account. Big Blue made little effort to market the airplane as available to others. Further, the evidence showed that the revenue generated by leasing the aircraft was substantially less than the costs incurred in owning the airplane. And finally, Big Blue indicated that the plane would be used for pleasure and disclaimed any use for operation and hire when procuring insurance for the plane.

In sum, the evidence led to the conclusion that Big Blue had failed to show "that it purchased the airplane to lease it in the normal course of business in an activity designed to result in gain, benefit, or advantage to Big Blue." Rather, the facts suggested that Big Blue had purchased the aircraft for the benefit of only its president and his family of companies. As a result, the use of the aircraft was not exempt from sales and use tax. ■



Photo by Daniela Simona Temneanu from Noun Project

Breaking Out in 2022

By Kim Stevens

As a pilot, one of the most beautiful sights and satisfying feelings is breaking out of the clouds, especially at night, to see the welcoming lights of the runway environment.

After taking and passing my instrument check-ride in October of 1981, I planned a long cross-country flight to Charleston, South Carolina, the following March in a C-182. It turned out to be a flight that certainly put my newly acquired skills to the test.

I was in or above the clouds pretty much the entire trip. The first leg took me to Evansville, Indiana, where I made my first Instrument Landing System (ILS) approach to an airport that wasn't one of the ones I used in training – that was different. After breaking out, I even asked for and was granted a “circle to land” on a different runway - the first and only time I've done that.

The next leg to Charleston got interesting. Again, I was either in the clouds or between layers the entire trip, as well as in and out of rain. In all my training, no one ever mentioned how mentally taxing that could be. Adding to the mix was losing contact with Center for a while and gaining a lot of ice.



Breaking out of the clouds

After re-establishing communications with Center and descending to a lower and much warmer altitude to lose the ice, I realized how much I was longing for some nice Visual Flight Rules (VFR). Although my training was thorough and I was handling everything that was thrown at me, I was glad to finally be passed on to Approach and vectored to intercept the final approach course.

Still in the clouds, and in growing darkness, I remember finally breaking out and seeing those beautiful runway lights. I think they beckoned to me, saying, “well done, but stay focused, complete your journey safely, and then you can rest.”

These last couple of years with the challenges we've all faced, it feels like we've been flying in the clouds for a long time, in and out of rain, longing for some VFR. But, like my flight to Charleston, even though exhausted, let's not give up hope. We all experience moments that may seem daunting, but trust your instruments, rely on your training, and we'll break out together in 2022. ■

VFR-On-Top Clearances

By David Morris

Of the various types of clearances issued by Air Traffic Control (ATC), some of us may not often utilize the “VFR-On-Top” clearance. Because of the infrequency of utilizing this type of clearance, it is easy to forget some of the nuances that go with it.

When issuing Instrument Flight Rules (IFR) clearances to Visual Flight Rules (VFR)-On-Top, ATC will include a clearance limit, route of flight, and a request to report reaching VFR-On-Top. The clearance limit will usually be a fix in the terminal area toward the direction of flight requested by the pilot.

This type of clearance should not be confused with an

IFR flight plan to the destination with an altitude request of VFR-On-Top instead of a specific altitude request. With the IFR clearance to VFR-On-Top conditions, the pilot is on his own after reaching VFR-On-Top. A typical clearance to VFR-On-Top might be: “Cessna 1234, cleared to the Grand Island VOR, radar vectors, maintain VFR conditions on top. If not VFR-On-Top at 4,000 feet, maintain 4,000 feet and advise.

For those of us who seldom utilize this type of clearance, it may be advisable to review a description of the VFR-On-Top clearance if we anticipate utilizing this procedure. ■

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 a.m.

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

30th Annual Nebraska State Fly-In, Grant
Municipal Airport (GGF)
Saturday, June 18, 2022
Contact: City of Grant, 308-352-2100