

PIREPS

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NEBRASKA

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DEPARTMENT OF TRANSPORTATION

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Airports Honor Aviation Pioneers

By Penny Rafferty Hamilton, Ph.D.

Brewster Field, Holdrege (KHDE)

Dr. Frank A. Brewster, born in Gage County Nebraska in 1872, made history in 1919 as the first civilian doctor to fly to a patient's bedside. Known as the "World's First Flying Surgeon," he was the first physician to purchase an airplane for use in making professional calls. Brewster built one of the first airports in Nebraska at Beaver City. Then, Dr. Brewster financed and built airports in Grand Island, Holdrege, and another in Oberlin, Kansas. In 1960, the Holdrege Municipal Airport was renamed Brewster Field in his honor, with a dedication ceremony and air show. In the late 1930s, his last airplane used in flying medical service was a four-seater Ryan Navion. A few years later, in 1943 Dr. Brewster learned to fly at Yankton, South Dakota at



Dr. Frank Brewster was a pioneer known as the "World's First Flying Surgeon." (WikiCommons)

the age of 71. In 1998, Frank A. Brewster joined other legends in the Nebraska Aviation Hall of Fame.



Searle Field sectional chart.

Ogallala Municipal Airport/ Searle Field (KOGA)

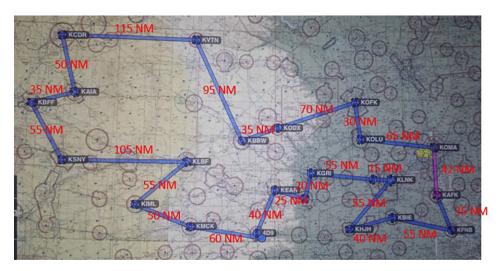
Born in 1896, Ogallala's Rector E. Searle grew up in historic times. Utah had just become the 45th state in the Union. William Jennings Bryan delivered his Cross of Gold speech which propelled him to the Democrat nomination for President. Only months later, William McKinley would win the Presidency. Rector loved cars. He started the R.E. Searle Motor Co., which he operated from 1916 to 1967. In 1919, Searle bought a World War I surplus Jenny, the first airplane in all of Keith

County. He developed an airport site on the Searle Ranch, just west of Ogallala, where he erected a hangar. Searle sold his first airplane in 1921. During the next fifty years, he sold more than 2,000 airplanes and was awarded the coveted million dollar sales award three times from Piper Aircraft Corporation. In 1935, Rector got his first pilot's license. The City of Ogallala acquired the land for a municipal airport in 1970. It was dedicated Searle Field in ceremonies held in 1972. Searle flew more than one million miles in his 15,000 hours in numerous aircraft. In 1995, Rector Searle was inducted into the Nebraska Aviation Hall of Fame

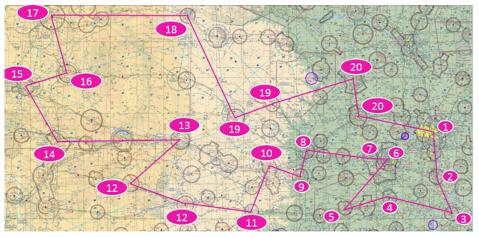
Dr. Penny Hamilton writes on aviation and women's history topics. Her recent book, 101 Trailblazing Women of Air and Space: Aviators and Astronauts, was selected as one of three book finalists in the Colorado Author's League Annual Writing Competition.

The Nebraska Air Trail

By Yasmina Platt



Total Route: 1,215 NM At 120 kts., that's about 10 hrs. of flight time.



Legend:

- Nebraska Air Trail

- Omaha
- Nebraska City
- Falls City
- Beatrice
- 6 Hebron
- 6 Lincoln
- Seward
- 8 Grand Island
- 9 Hastings
- 10 Kearney
- 11 Alma and Red Cloud

- 12 McCook and Imperial
- 13 North Platte
- 14 Sidney
- 15 Scottsbluff
- 16 Alliance
- 17 Chadron
- 18 Valentine
- 19 Broken Bow and Ord
- Norfolk and Columbus

Some pilots need reasons to fly and I can always find good reasons! The idea of the Nebraska Air Trail is to bring flying and tourism together. It allows us to not only enjoy the friendly sky and the wonderful views it provides, but also to land at some neat airports, visit some cool towns, explore the outdoors, try some other aviation and non-aviation activities, eat at some good airport restaurants, stay at unique hotels or camp out under the wing, and learn some history lessons among other things.

Nebraska encompasses the prairies of the Great Plains, the towering dunes of the Sandhills, and the Panhandle's dramatic rock formations. While the Omaha skyline surprises visitors with its big city feel, part of the real beauty of Nebraska lies in its rural areas (especially while watching a sunset) that spread across the rolling plains.

The proposed route around the "Cornhusker State" is a circular one to make it easier to follow. Too many possible stops may be identified, but you can start/stop this route from any airport and fly it in any order or direction you prefer. You can also skip and add other stops as you please; these are just suggestions.

In its entirety, the state of Nebraska has a far more dynamic topography than one would expect. While it may fit the mark of a "fly-over state" from FL350, it reveals at least four different types of terrain that stand out to those of us at lower altitudes.

The eastern part of the state starts with bluffs along the Missouri River that turn into the rolling hills of the "Bohemian Alps" west of Lincoln. If one flies north or south along the western edge of those hills, you can see where the edge of an ancient glacier once flowed (and flattened the middle part of the state).

The mid-portion of Nebraska is flat plains; however, there are numerous rivers running through the entirety of the state, which are interesting to follow.

The Sandhills' territory starts about the midway point through the state, with hundreds of bodies of water filled by the Ogallala Aguifer.

The Western portion (Panhandle) has the greatest amount of hills, bluffs, and the beginnings of mountainous terrain. Whether flown from east to west, or west to east, the Panhandle of Nebraska is a striking beginning or end of an enjoyable air tour of this great state.

To read the details of the Nebraska Air Trail or any of the other air trails, visit www.airtrails.weebly.com. Fly safe and fly often. ■

Director's View

WANTED: Your story about the value of Nebraska's aviation system: Investment in Nebraska's Airports



On November 15, 2021 the Bipartisan Infrastructure Law was passed by Congress and signed by the President. BIL is a once-in-a generation investment in America's transportation network. It will modernize infrastructure, increase equity in transportation, help fight climate change, strengthen the supply chain, and create jobs. The FAA will invest \$25 billion in airports and infrastructure to meet these goals. These special grant funds, which are in addition to the regular Airport Improvement Program grant funds, are very competitive. Everyone who reads PIREPS and all your friends and colleagues, will need to work together to demonstrate to the Nebraska Aeronautics Commission, Nebraska Legislature, FAA, and Congress that investing in Nebraska's airports will further these goals.

Consider how investing in Nebraska's aviation system can increase equity in transportation:

- Commercial service to small and rural communities provides a link to the National Airspace System that would otherwise only be available to those living in larger cities,
- Airports with appropriate weather reporting and NAVAIDs in rural communities provide emergency medical access to help get people to needed medical care in the urgent first hour,
- Nebraska's Agriculture Industry relies on jet-capable airports to:
 - · Quickly replace parts when equipment goes down,
 - · Bring cattle buyers to ranches,
 - Allow corporate executives to visit rural facilities,
- Many smaller GA airports are critical to facilitate aerial application, which is necessary for our farm production,
- Flight instruction at airports throughout Nebraska ensures a stream of pilots to meet the current shortage,
- School students have the opportunity of hands-on learning of Science/Technology/Engineering/Math from a visit to the airport and a Young Eagle flight,
- And much, much more!

We need to ensure that decision-makers at all levels understand how important a comparatively small investment in aviation is to ALL Nebraskans.

Will you share your story? Have you been unable to improve your local airport because your community couldn't fund the local match for a grant? Has there been a tragic medical emergency in your area that could have been averted with better aviation infrastructure? Has a manufacturing facility been down, and people out of work for an extended period waiting for a part to be delivered by truck?

Help us tell your story! Send your example of a Nebraska community concern that could be alleviated by an investment in aviation. No story is too large or too small! You can send your story to me at ann.richart@nebraska.gov.

Thanks for helping us help you!!

OUR VISION

A dynamic aviation system which enhances quality of life through infrastructure and services that meet the diverse and evolving needs of all Nebraskans.

Promoting Aviation in Omaha

By Jim Beyer

In August 2022, Experimental Aircraft Association (EAA) Chapter 80 celebrated one year of promoting aviation in what has been coined the Aviation Building Laboratory and Aviation Center for Education (ABLE ACE) at the Oakview Mall (144th and Center) in west Omaha.

Over the past year, numerous radio-controlled aircraft have been built and repaired. In addition, dozens of kids have built (and later launched) model rockets, a Zenith STOL CH750 is nearing completion, a RV-12ULS has resumed construction, numerous club meetings (including EAA's IMC and VMC Club) held, and even Halloween candy was given to 700+kids who came through the ABLE ACE during the mall's indoor Trick or Treat event.

Of special note is the 2021 Nebraska Aviation contest winners' drawings display (see picture at right). Overall, the past year was exceptional at showing youth (and some adults) all types of aviation-related opportunities, and the future is bright as we look forward to the next year.

One final event to highlight is the annual Aviation STEM Day, hosted by Omaha Aviation STEMaha on September 24 at the Millard Airport. This focused on igniting and inspiring youth interest in STEM-aligned aviation fields, with hands-on activities and many types of airplanes, helicopters, and even a youth-built airplane. Fly safe!





2021 Nebraska Aviation contest winners' drawings display

Aviation Art Contest 2023 "Air Sports & The Environment"

By David Morris

The sense of liberty that pilots and skydivers feel when flying through the skies often comes hand-in-hand with a deep appreciation of the blue and green planet below.

Aviation has always been at the forefront of technology and over the generations, those involved in aeronautics have felt an ever-increasing pressure to protect our planet.

By letting our imagination fly, we ask you to explore the ways that air sports can interact harmoniously with our environment. How can air sports help inspire others to protect our earth? How can technology and greener fuels be used to power aircraft? How could aviation be involved in reducing, reusing and recycling?

Youngsters ages 6 through 17, now is the time to get out your favorite artist supplies and give free rein to your imagination for the 2023 Aviation Art Contest. Create a poster that represents your thoughts about this year's theme: "Air Sports & The Environment."

For further details and/or an entry brochure, contact David Morris at the NDOT − Division of Aeronautics david.morris@nebraska.gov or call (402) 471-2371. The following link is available to download the 2023 Aviation Art Competition brochure. All entries must be postmarked no later than January 10, 2023. ■

Vlasek Receives Coach of the Year Award

By Diane R. Bartels



Scott Vlasek, University of Nebraska Omaha flight team coach

Scott Vlasek, University of Nebraska Omaha flight team coach, was selected as the 2022 NIFA (National Intercollegiate Flying Association) Coach of the Year at the annual SAFECON (Safety and Flight Evaluation Conference) in Columbus, Ohio. The Coach of the Year Award is based on Leadership, Inspiration and Support of Flight Team, Professionalism, Organization and Delegation of Team Responsibilities,

Professional Development and Instructional Skills, and History of SAFECON Excellence.

Twenty-seven university and college flight teams from across the United States qualified to compete in the ground and flying events during the week of May 9-14. Vlasek played an integral part in providing the leadership that resulted in the Mavericks flight team being invited to the national event for several years.

Vlasek secured major sponsorships for his flight team with companies such as Jet Linx and Adidas, as well as being included in the UNO's athletic department contract with Adidas. He also serves as the national president of the Alpha Eta Rho aviation fraternity and has been instrumental in increasing the number of collegiate men and women who have joined and committed to its goals. He has helped to develop a culture of involvement and support for other organizations at the Aviation Institute, such as Black Aviation Professionals and Women in Aviation International. In addition, he has served as a NIFA regional representative on its board of directors and a SAFECON judge for nearly 20 years. Vlasek has touched the lives of many current and future aviation professionals.

According to Owen Brennan and Hunter Pehrson, flight team members who wrote the Coach of the Year nomination, "Mr. Vlasek is an aviation professional who has a wide range of knowledge and experience. He excels in the role of mentoring, accountability, and organizational skills." They concluded the nomination with, "His support for NIFA and SAFECON is unmatched, and if there is anyone who deserves the respected award of Coach of the Year, it is Mr. Vlasek."

Vlasek was recently appointed to serve as director of the Aviation Institute at the University of Nebraska Omaha.

The Safety Case

Statistics support value of upset training Aviation Brief Magazine

According to the International Civil Aviation
Organization (ICAO), Loss of Control in Flight (LOC-I)
accidents accounted for just three percent of all
accidents in 2015, but represented 33 percent of fatal
accidents. Data from the International Air Transport
Association's (IATA) 2019 Loss of Control in-Flight
Accident Analysis Report revealed that from 2009
through 2018, there were 64 LOC-I accidents resulting
in 2,462 fatalities. While the occurrence of LOC-I
accidents is low, 94 percent of those accidents resulted
in fatalities to passengers and flight crew. The study
also showed that LOC-I accidents accounted for more
fatalities than any other accident category.

The AOPA Air Safety Institute's Joseph T. Nall Report notes that most accidents in both commercial and non-commercial GA are related to pilot action. For example, 58 percent of commercial fixed-wing accidents in 2019 (the most recent year with complete data) were determined to be pilot-related, 21 percent attributed to mechanical issues, and 21 percent for other or unknown reasons. The percentage of pilot-related accidents among non-commercial operations was higher (62 percent), including nearly half of all fatal accidents. Because the NTSB takes approximately two years to issue probable cause statements, data for 2020 and 2021 remains preliminary.

Aviation Quiz

- 1. Why are there generally no hurricanes in the South Atlantic Ocean?
- 2. What was the deadliest hurricane in American history?
- **3.** Why do hurricanes nearly never cross the equator?
- 4. What is Coriolis Force?
- 5. What are the Laws of Flight?
- 6. What is the fastest aircraft ever built?
- 7. Who designed the Boeing 747 aircraft?
- **8.** Who is the only U.S. president from Franklin D. Roosevelt to William "Bill" Clinton that did not have an airport named after them?
- **9.** What is the oldest continuous airport in operation in the U.S.?
- **10.** How much do people dehydrate during flight?

see page 7 for answers.

Contact Approach Clearance

By David Morris

A Contact Approach is an approach available to aircraft operating on an Instrument Flight Rules (IFR) flight plan, where the pilot may deviate from the published Instrument Approach Procedure (IAP) and proceed to the destination airport by visual reference to the surface. The contact approach is often used as a time and fuel savings method of working the Air Traffic Control (ATC) system to a pilot's advantage.

However, this shortcut comes with two important warnings: It is essentially a legalized form of scudrunning; a potentially very dangerous practice. After a pilot requests a contact approach, ATC will issue a contact approach clearance if the ground visibility is at least one statute mile. In addition, the pilot must remain clear of clouds. ATC will not issue a fixed altitude on a contact approach but may clear the aircraft to maintain an altitude at or below a specified altitude, if necessary for vertical separation. The following clearance is an example of a contact approach clearance:

"Cessna N314DM, cleared for contact approach at or below 4,000 feet."

The controller cannot initiate a contact approach. The approach must be requested by the pilot; and the airport must have a published instrument approach. When a contact approach clearance is requested, the pilot likely would expect the ability to remain clear of clouds to the destination airport

FAA moved AD Databases Aug. 16

David Morris

The FAA decommissioned several Airworthiness Directives databases August 16, 2022, in the <u>Regulatory Guidance Library</u>, including:

- Emergency Airworthiness Directives (EAD)
- Airworthiness Directives (AD)
- Airworthiness Directives: Biweekly (AD Biweekly)

After Aug. 16, the AD documents will only be available on the newly developed <u>Dynamic Regulatory System</u> (<u>DRS</u>).

FAA officials note that PDF tutorial guides for the new system are available if you contact them via email at 9-AVS-AIR-Regulatory-and-Guidance-Library@FAA.gov.

You can subscribe to receive notifications about published ADs and EADs by navigating to the <u>FAA</u> <u>GovDelivery</u> Service. If you are already subscribed to notifications, you don't have to take any other action, FAA officials reported.

Additionally, the FAA will continue to mail copies of the AD Biweekly, which is a paid subscription of all ADs issued in the Federal Register over the previous twoweek period, officials noted.

Revv Aviation will expand to Eppley Airfield with flight school

By Dan Crisler, Omaha World-Herald

A Midwest aviation services company is making its foray into Nebraska by expanding to Omaha's Eppley Airfield.

The highlight of Revv Aviation's expansion is a flight school that will be paired with Revv's existing flight school at Council Bluffs Municipal Airport. The company is headquartered in Aurora, Illinois.

Revv's Eppley flight school will be the second one at Nebraska's largest airport, joining one operated by Nebraska Flight Center. Revv is leasing offices at the TAC Air fixed-base operator at Eppley.

Chief flight instructor Jerome Howard said Wednesday that pilots who are well into their training with Revv will be able to gain experience with Eppley's professional structures, including coordinating with air traffic controllers on flights.

"The majority of students who get into flight training want to go into professional aviation," Howard said. "Operating at an airport such as Eppley will give them that experience."

Revv's expansion also deepens the company's relationship to Omaha. The company, which recently rebranded to its current name, has partnered for a number of years with the University of Nebraska at Omaha's Aviation Institute to train students. Revv also trains pilots who aren't going through a university program.

Pilots who train through a university and earn a degree must fly for at least 1,000 hours in order to become fully certified and thus eligible to fly for airlines.

Revy's expansion into Eppley also means the shifting of instruction of multi-engine aircraft to Eppley. The majority of Revy's instruction, including on single-engine aircraft, will stay at the Council Bluffs airport. Revy's aircrafts that are used for training include the single-engine Cessna 172 and the twin-engine Piper Seminoles.

"It's not like we're moving the whole operation or anything," Howard said. "The aircraft are still going to be based here at Council Bluffs."

Howard acknowledged the new flight school should help slightly alleviate the pilot shortage. He said, however, that is only a secondary objective given that the shortage is "a continuous cycle" that sees major airlines pulling from regional airlines and regional airlines subsequently filling those gaps down the chain.

The Bureau of Labor Statistics projects an average of 14,500 openings for airline and commercial pilots each year this decade mainly because of retirements and pilots who leave for other occupations.

Revv's expansion to Eppley ties into the former's desire to train students from diverse backgrounds. Revv offers internships and scholarships for students.

"We want to get as many people, especially young people, into aviation. We want diversity. We want more female pilots and more female mechanics," marketing director Rod Kelly said, adding that Revv is also focusing on attracting people from underserved communities into the aviation industry.

Howard echoed that.

"If you want to come out and learn how to fly, no matter the walk of life you come from and no matter where you come from, aviation is something for everybody," Howard said.

Article reprinted with permission of the Omaha World-Herald.■

Aviation STEMaha Big Annual Event

By Jim Beyer



These young ladies from Eurkea! Girls Inc had an incredible orientation flight as part of EAA Chapter 80's Young Eagle flight program. Photo by Jim Beyer

The Aviation STEMaha group hosted their 5th annual Aviation STEM Day (aka Explore Aviation) at the Millard Airport on Saturday, September 24, 2022. Hundreds of participants visited nearly two dozen organizations from the greater Omaha area and over 40 youth took to the skies participating in EAA Chapter 80's Young Eagles introductory flight program. Their next outreach event is planned for February 18, 2023 inside the Oakview Mall next to EAA Chapter 80's Aircraft Building Laboratory and Aviation Center for Education. Next summer's event is planned for September 23, 2023. ■



These Civil Air Patrol cadets are showing great interest in a conversation with the gentleman from Nebraska Freeflighters.

Photo by Jim Beyer

Events Calendar

Please check the Aeronautics web page for a list of upcoming aviation events.

Great Plains Wing of the Commemorative Air Force Third Wednesday Cookout (TWCO) – 3rd Wed. of every month, April through October, Council Bluffs Municipal Airport KCBF, GPW Hangar, 1730-1900 hours, burgers, brats, chicken.

Contact Jeff Hutcheson, 402-981-4633 Or jeffhutcheson3@gmail.com

Nebraska Chapter of the Antique Airplane Association hamburger cookout last Saturday of the month March-October, Hastings Municipal Airport, same time and contact info as June-July issue

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

Answers to Quiz on Page 5

- 1. Strong wind shear, which disrupts the formation of cyclones, as well as a lack of weather disturbances favorable for development in the South Atlantic Ocean, make any strong tropical system extremely rare, and Hurricane Catarina in 2004 is the only recorded South Atlantic hurricane in history.
- 2. The Galveston hurricane of 1900
- **3.** There is no Coriolis force at the equator and why hurricanes rarely form near the equator. The Coriolis force is simply too weak to move the air around low pressure.
- 4. An effect whereby an air mass moving in a rotating system experiences a force (the Coriolis force) acting perpendicular to the direction of motion and is caused by the earth's rotation. On the earth, the effect tends to deflect moving objects to the right in the northern hemisphere and to the left in the southern and is important in the formation of cyclonic weather systems.
- 5. The four forces of flight are always acting on an aircraft: thrust (forward), drag (rearward), lift (up), and weight (down). Managing those forces and their equal and opposite reactions to each other is how a pilot makes an aircraft break free of gravity, then maintain control.
- **6.** The Lockheed SR-71 Blackbird is the fastest jet aircraft in the world, reaching speeds of Mach 3.3–that's more than 3,500 kph (2,100 mph) and almost four times as fast as the average cruising speed of a commercial airliner. Key elements of the SR-71's design made this possible.
- 7. Joseph Frederick Sutter was an American engineer for the Boeing Airplane Company and manager of the design team for the Boeing 747 under Malcolm T. Stamper, the head of the 747 project. Air & Space/Smithsonian magazine who has described Sutter as the "father of the 747."
- 8. Richard Nixon
- **9.** College Park Airport, KCGS, College Park Maryland, established in 1909 when Wilber Wright arrived at the airfield to train two military officers in the U.S. Army.
- **10.** On average the human body loses 1.5 liters of water on a 3 hour flight.