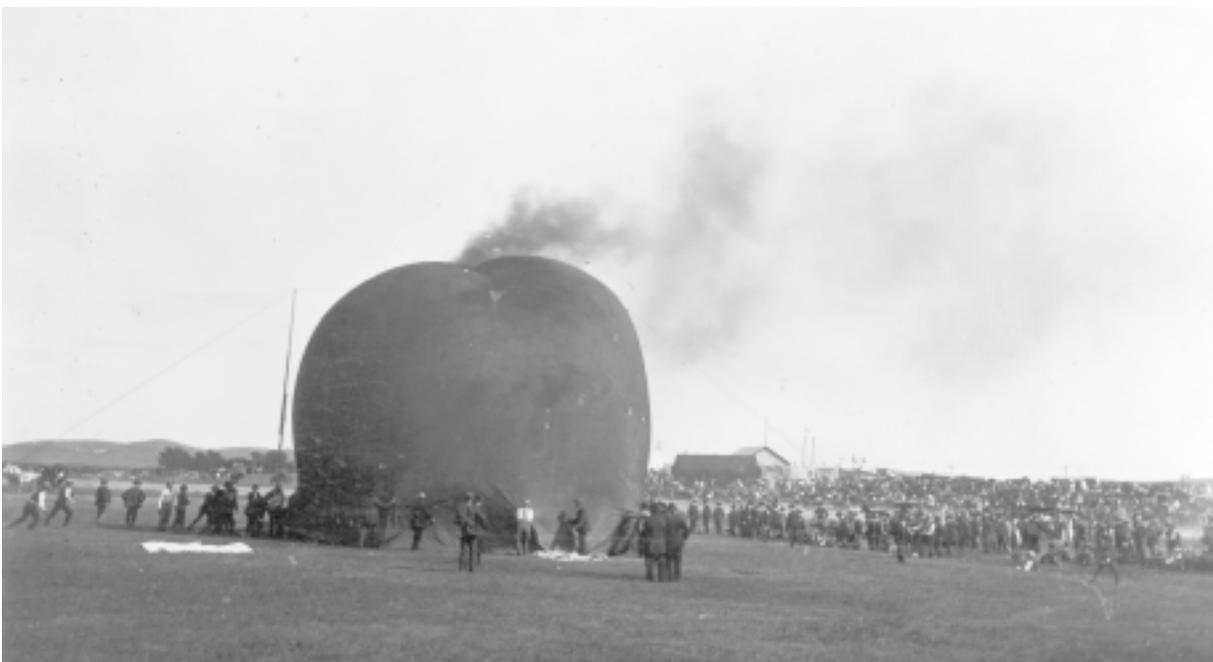




No. 18**Aviation in Nebraska**

Since the beginning of time, men and women have desired to fly like the birds they saw soaring high above them. Many people tried to turn their fantasies into reality. They put wing-like structures onto their bodies and jumped from towers or high walls. The results were usually disastrous.

Some of the first attempts at flying in Nebraska involved *lighter-than-air* aircraft. These were large balloons which used gasses to achieve flight. Most used hydrogen gas which was extremely dangerous and caused many explosions. Eventually, helium was substituted. By then, though, balloons were being abandoned in favor of *heavier-than-air* airplanes which used engine power to fly.



This is a balloon being inflated before takeoff in 1903 in Broken Bow.

Mid-West Aviation Meet
July 23, 24, 25, 26 and 27
 Grounds
 45th and Military Avenue
 Hours, 3 to 6 p. m.
Glen H. Curtiss America's Foremost Aviator will head the Flyers.

This is probably the only meeting in which Mr. Curtiss himself will take part. He will use the same airplane in which he made his famous flight from Albany to New York, and will be assisted by J. S. Hays and Eugene Ely, two of the most daring and successful aviators in America today.

It is one of the few opportunities that have been offered in this country to view every type of crash that flies—the airplane and airplane building, and the latest airplane machines.

It will be practically impossible to furnish tickets in the big amounts at the grounds in advance, and the management has, therefore, placed tickets for sale at the following prices:

General Admission	50c	and back	1.00	and forward	1.50	and return	2.00
Reserved Seats	1.00	and back	2.00	and forward	3.00	and return	4.00
Box Seats	5.00	and back	10.00	and forward	15.00	and return	20.00
Children	25c	and back	50c	and forward	75c	and return	1.00
Automobiles	1.00	and back	2.00	and forward	3.00	and return	4.00

PRICES—Adults, 50c; Children, 25c; Grandstand, 50c; Automobiles, \$1.00

The first flight of a heavier-than-air aircraft in the United States was made in 1903 in Kitty Hawk, North Carolina, by Wilbur and Orville Wright. It was seven years before Nebraskans saw their first airplane flight. On July 23, 1910, seven thousand people in Omaha watched a twelve minute exhibition flight by Glenn H. Curtiss.

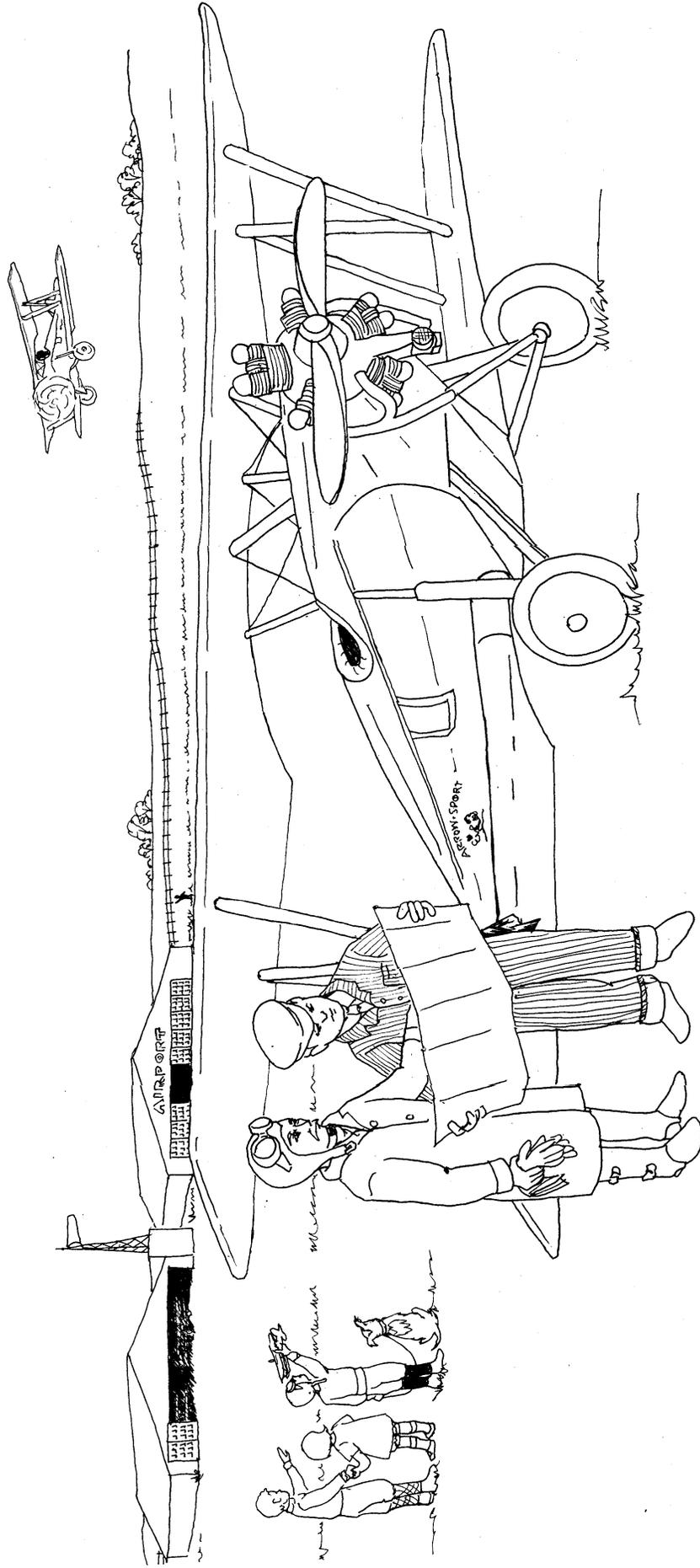
Flights such as these inspired many Nebraskans to explore the art and science of flying. The seven Savidge brothers from Ewing, Nebraska – George, John, Joe, Dave, Phillip, Louis, and Matt – spent every waking hour making a plane of their own.



After numerous trials and crashes, the Savidges had their first successful flight on May 7, 1911. Thrilled by their success, they took their plane on a tour across Nebraska and throughout the Midwest. Here one of their planes flies above Spalding, Nebraska.

The Savidge brothers' tour lasted for about five years. After Matt was killed while testing a new plane on June 17, 1916, the boys' parents and sisters insisted that they give up flying. Their planes were taken apart and stored in their barn.





The most successful airplane created by Arrow Aircraft of Lincoln, Nebraska, was the Arrow-Sport. The attractive little plane proved to be a top seller when it was taken to air shows in New York and Chicago. Today, if you visit the Lincoln Airport terminal, you can see an old Arrow-Sport hanging from the ceiling.

**Aviation is the operation of aircraft. Can you define these similar words?
Aeronautics? Aviator? Aviatrix? Astronaut? Airport?**



Despite the danger, fascination with flying quickly spread throughout Nebraska. Raymond Page, a car dealer from Lincoln, realized the importance of aviation. In 1919 he purchased a large stock of airplane parts and began to make planes. Page soon discovered that he needed pilots to deliver the aircraft to buyers. He opened the Lincoln Airplane and Flying School to train aviators.

One of the school's students became one of the most famous men in aviation history. Charles Lindbergh came to Lincoln in 1922 and enrolled at the school. Flying lessons were very expensive – around \$300 for ten hours of instruction. After only a few lessons, Lindbergh's instructors realized that he was a "natural" pilot. In fact, Lindbergh took his last three lessons in parachute jumping rather than piloting.



After leaving Lincoln, Charles Lindbergh went around the country performing various aerial stunts. This was not enough of a challenge for him. No one had yet flown alone across the Atlantic Ocean, from New York to Paris, France, nonstop. On May 20, 1927, Lindbergh made the journey in thirty-three hours and twenty-nine minutes. Lindbergh became an instant celebrity and hero. After making the trip, Lindbergh and his little plane went on a cross-country tour of the United States. Here his plane, *The Spirit of St. Louis*, rests in Lincoln.

Because of its central location, Nebraska became an important stopping point for airmail during the 1920s. Airmail service began as an experiment in the United States in 1911. The first transcontinental flight was made in 1918.

The first night airmail flight in the nation was from North Platte, Nebraska, to Chicago, Illinois. Pilot Jack Knight had to follow a path created by bonfires lit by farmers in order to see the route.

Eventually, airfields received lights. North Platte had the first night-lighted airmail field in the United States.



One of the most famous airmail pilots in Nebraska was Evelyn Sharp of Ord. Evelyn began flying at the age of fourteen and received her commercial pilot's license at the age of eighteen. She was the youngest person in the nation to achieve that rating. Evelyn was also one of the first female airmail pilots in the country. She made her first airmail pickup at Ord on May 19, 1938.

During World War II, Evelyn joined the Army Air Force's Women's Auxiliary Ferrying Squadron (WAFS). She was one of many expert woman pilots who flew military aircraft from factories to shipping points. On April 3, 1944, at the age of twenty-four, Evelyn was killed when the plane she was flying crashed on takeoff. The airport at Ord is named Sharp Field in her honor.

An important aviation company was the Arrow Aircraft and Motors Company, which started in 1925 in Havelock, Nebraska (now part of Lincoln). Airplane production at Arrow Aircraft used modern assembly-line techniques. The company's 570 employees turned out four airplanes a day! Before closing in 1941, Arrow briefly led the nation in sales. These women workers are putting fabric coverings on airplane wings.



Most of the first pilots made their living by *barnstorming*. Barnstorming is another word for performing aerial stunts and parachute jumping. Barnstorming shows were very popular at county and state fairs. One basic barnstorming stunt was wing walking. Many wing walkers pretended to fall during their act, much to the delight of the crowd. Of course, some of these stunt men and women did fall, and accidents were very common.



During the 1930s air passenger travel began for the adventurous. You can see what the interior of a passenger plane looked like during those early days. After World War II, passenger travel became more common and safer with advances in technology.



The country continued to look to Nebraska as an aviation center during World War II (1941- 45). Eleven military air bases were built by the army during the war in Ainsworth, Alliance, Bruning, Fairmont, Grand Island, Harvard, Kearney, Lincoln, McCook, Scottsbluff, and Scribner. These air bases were used to train crews of men to fly large airplanes known as "bombers." Here the crew of *The Aksarben Knight* looks over its plane. (What does Aksarben spell backwards?)



In the years following World War II, aviation declined in Nebraska. Most of the air bases are now abandoned. Many of the small town airports have been closed. However, Nebraskans can be proud that Omaha was chosen to house the Strategic Air Command (often called SAC) at Offutt Air Force Base in Bellevue. From this location, SAC conducts world-wide operations which help defend the United States.

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Paper Glider That Loops the Loop!

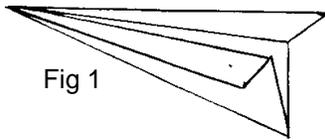
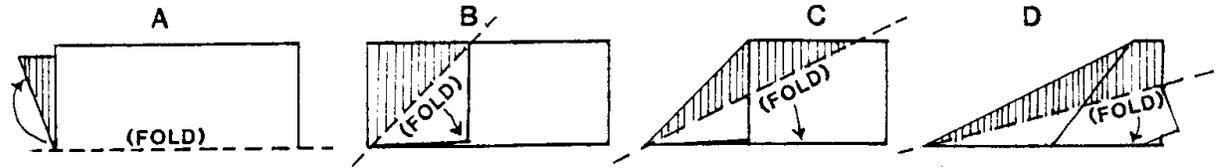


Fig 1

Following instructions A through D, fold a paper glider (Fig. 1). To make the glider loop the loop, the rear corners of the wings should be turned up at right angles as in Fig. 2. Launch it with a great deal of force with the nose pointed slightly upward (a high ceiling is helpful). After looping once as shown in Fig. 3, the glider descends nose downward as shown in Fig. 4.



Fig. 2

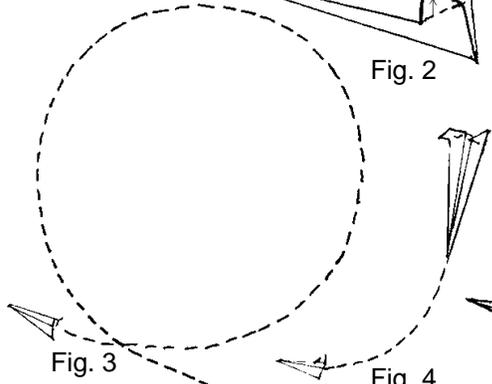


Fig. 3



Fig. 4

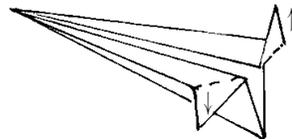


Fig. 5

A corkscrew flight can be had by preparing it as shown in Fig. 5. One rear wing corner is bent up and the other down. When launched, the glider will fly down or horizontally while rapidly rotating, as shown in Fig. 6.

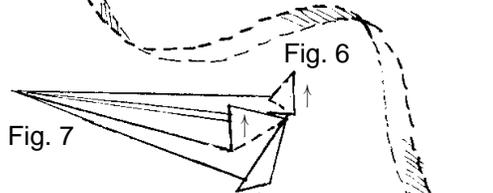


Fig. 6



Fig. 7

To make the spiral descent shown in Fig. 8, bend the corners of the wings up as in Fig. 2, and bend the near corner of the keel at right angles as in Fig. 7.

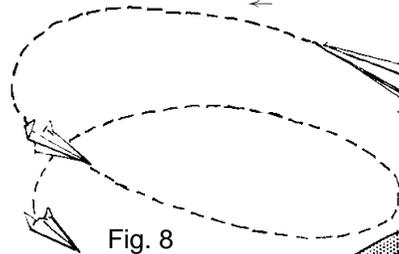


Fig. 8

Try different methods of launching to find the best for the type of glider action you wish to have. The boy in the illustration shows one method for a very smooth launch.

