

Iowa Aviation Museum **Newsletter**

Volume 37 Issue 1

IOWA AVIATION MUSEUM – GREENFIELD, IOWA

May 2026



Annual Fly-in and Hall of Fame Induction

Page 6

Inside this issue....

President's Report.....2
Oscar & Mary Solbrig - Aviation Pioneers....3

Powering Flight.....5
At the Museum.....6
Membership.....7

Keep informed: Visit us at www.flyingmuseum.com

President's Report



A New Season Begins

We are OPEN FOR THE SEASON and the museum staff is eager to share their knowledge of Iowa Aviation history with you.

It's going to be an exciting year. Many dreams at the museum are coming true as a contract to construct a new 100x100 foot hangar is to soon be awarded. The City of Greenfield has granted a 50-year management agreement with the museum for its use.

Construction is scheduled to begin this fall and completed early 2027.

We're also working to update our website. And be sure to follow our Facebook page at Iowa Aviation Museum for the latest news.

Please come join us this summer!

We are excited to hear input on your wants and ideas for future growth.

Our Annual Fly-in and Hall of Fame Induction will be held August 30, and on August 29 kids will get a chance to take to the skies and discover the wonders of flight at Youth Aviation Day. It will all be great fun!

See you soon!

Greg

The Iowa Aviation
Museum and Hall of Fame
is OPEN for the season!

A Salute to Iowa Aviation

The Iowa Aviation Hall of Fame, located in the museum, honors Iowa men and women for their achievements in aviation. Nomination materials are online at www.flyingmuseum.com or at the Iowa Aviation Museum. Forms must be post-marked by February 1.

THANK YOU for continuing to help us preserve Iowa aviation history with stories and donations. If you have an aviation story or know someone with a story, email it to aviation@iowatelecom.net or mail it to P.O. Box 31, Greenfield, IA 50849.

*Are you looking for more to do while
you're in Adair County?*

www.VisitAdairCounty.org



Group tours:
641-743-8444



MUSEUM HOURS

Regular Hours: **May 1 to October 31**
Monday thru Saturday: 10 a.m. to 5 p.m.
Sunday: 1 p.m. to 5 p.m.
Closed Holidays

www.flyingmuseum.com

FACEBOOK: Iowa Aviation Museum

Contact the museum to schedule a large group tour.
641-343-7184 aviation@iowatelecom.net

Board President

Gregory M. Schildberg

Board Members

Tim Busch

Brick Imerman

Bob Weiland

Staff Members

Eugene Hardisty

Helen Larson

Rosie Armstrong

Audrey Youngblood

Newsletter

Terri Queck-Matzie

Project Volunteer - Debbie Bates/Photo Director

It Takes a Team

The Solbrigs of Davenport

The year was 1915. A gust of eastern Iowa wind shoved a biplane into a drift toward a terrace, nearly causing an end to the flight exhibition.

Mary Solbrig picked up her long skirts, ran across the field, and grabbed the end of the wing. She was dragged across the ground, but her weight changed the direction of the plane. The wing missed the terrace and her husband, Oscar Solbrig, was saved from a crash.

The Solbrigs were a unique couple, both earning the honor of wearing the gold Early Birds pin.

Oscar was the aviator and inventor. Mary was the mechanic, as she preferred to be called, as well as handling public relations and publicity, contract negotiations, and show preparation, the first wife of an aviation pioneer to perform all the roles.

Mary could uncrate and assemble the biplane, shipped by rail then horse-drawn dray wagon, in crates from one exhibition site to another, with very little assistance.

She would prep site rough ground by filling holes with dirt she carried in her apron pocket.

She was the security force, once driving off possible craft tamperers with a hammer.

Shortly before the show began, Mary poured 3 gallons of gasoline into the tank of the engine, straining it through a chamois to remove impurities.

Oscar cranked the propellor to start the engine, then strapped himself into the seat. As the engine revved up, four men held the plane steady to keep it from moving.

Mary listened. When her finely tuned ear heard the high-pitched whine that signaled the engine had reached maximum power output and was ready for flight, she dropped her white handkerchief, and the men let go of the wings.

Showtime!



Oscar and Mary Solbrig worked as a team. Oscar was the pilot. Mary was the mechanic, among other duties. Together they worked the flight exhibition circuit in the early days of aviation.

In the years prior to WWI, the Solbrigs were well known on the Iowa and Midwest flight exhibition circuit. They once had to push back a crowd of 10,000 spectators to clear a path for take-off. Oscar and fellow aviationist H.J. Webster made entertainment headlines with a spectacular mock air battle. They headlined festivals and celebrations.

But they had, quite literally, started from scratch.

continued on page 4

Solbrig continued...

Oscar the Mary Solbrig spent the winter of 1913 building a Curtiss pusher biplane in their living room.

Oscar immigrated to the United States around 1891 and settled in Washington, Iowa, and opened a small machine shop where he sold and repaired bicycles and guns. He had learned the machinist trade in his native Germany and quickly developed an interest in the budding promise of aviation.

In 1884 he married Mary Heidenreich and in 1909, they moved to Davenport where Oscar continued to work as a machinist.

In September 1913 Oscar attended the Curtiss School at Hammondsport, New York. Accounts of his time there say he spent much of his time at the Curtiss factory, studying the structural and working parts they were designing.

Before he left, he purchased about half the parts he needed to build the pusher biplane. He would rely on his metal working and machinist inventiveness to fabricate the rest. Among his design creations were detachable linkages that made assembly and disassembly easier.

In 1914 they installed a 50 HP Roberts engine, a preference Oscar would use much of his flying career. The engine sounded like an “outboard motor without a muffler.”

The Solbrigs stored and tested the plane at the Davenport mile track, starting with short hops, then longer ones.

There were crashes. But for the most part Oscar managed to escape serious injury.

Every winter the plane was dismantled, with every part inspected and repaired or replaced as necessary.

A crash at the 1916 Iowa County Fair in Merengo put the Curtiss out of commission.

The couple purchased a Benoist tractor biplane, again with a Roberts engine, and continued flying, though the exhibitions waned.

When the war began, Oscar put aside his personal aviation agenda and became a lieutenant in the U.S. Army Aviation Reserve Corps, appearing in air shows on their behalf.

He opened a blacksmith and carpenter shop in Bettendorf, a go-to for aviators needing hand created parts. He often visited the Davenport Aviation School, operated by William Cook, to talk with students. Cook once said Oscar “could take a rather crude sketch and make an acceptable fitting.”

In 1926, the couple gave the Benoist to a Davenport museum housed in an old church. When that was torn down, Mary shipped the plane to Louis Anderson, a Dow City, Iowa, native known for his resourceful airplane restoration and building projects, where it was restored.

At the urging of E.D. “Hud” Weeks, Clifton P. Oleson, and the Iowa Aeronautics Commission, the plane made its way back to Iowa and hangs in the Iowa State Historical Museum.

Oscar died in 1941, at age 69. Mary died in 1954.

Before her death, she donated the airframe and a remaining spare parts of the Curtiss to the Smithsonian Institution.

Source: Iowa Takes to the Air - Ann Holtgren Pellegreno



The Solbrig's restored Benoist on its way to the Iowa State Historical Museum in Des Moines.

Powering flight

Early aviators had to not only learn the skilled intricacies of flight, they often had to build their own planes and find a way to power the craft.

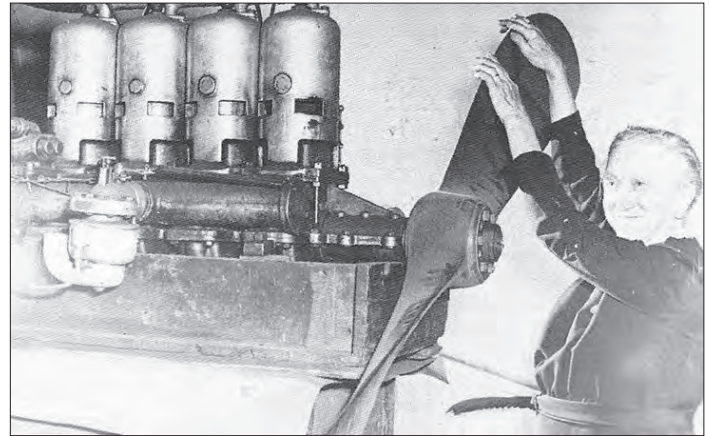
Some, like Oscar Solbrig, turned to the Roberts engine, built by the Roberts Motor Company of Sandusky, Ohio. The Model 6X powered Herman Eckler's 1912 flying boat. Between 1911 and 1912, many noted exhibition pilots used Roberts engines, and more Roberts engines were said to be built than by Hall-Scott and Curtiss combined.

The Roberts engine was known for its light weight, achieved by using aluminum and magnesium alloys in the cylinders and crankcase, a hollow crankshaft, and two-stroke cycle operation.

A 1910 Curtiss pusher with the same Roberts engine was restored by John Schildberg and hangs in the Iowa State Historical Museum in Des Moines.

Another early choice was the rotary aircraft engine, like this le Rhone 9C rotary engine, part of the Iowa Aviation Museum's permanent display.

A rotary engine is essentially a standard Otto cycle engine, with cylinders arranged radially around a central crankshaft just like a conventional radial engine, but instead of having a fixed cylinder block with rotating crankshaft, the crankshaft remains stationary and the entire cylinder block rotates around it. In the most common form, the crankshaft was fixed solidly to the airframe, and the propeller was bolted to the front of the crankcase.



Mary Solbrig and their Roberts engine.

Popular in WWI for their high power-to-weight ratios, they were lightweight and acted as their own flywheel. Aside from use in early aviation, rotary engines found their way into motorcycles and automobiles.

They were described as “a very efficient solution to the problems of power output, weight, and reliability.” But the rotary engine was also known for intense torque and gyroscopic effects, and high fuel and oil consumption.

Use was largely discontinued by the 1920s.

The 80 hp le Rhone engine was manufactured by Gnome at Phone in France and widely used in WWI fighters.



This original 1917 propeller and engine were used in the only American-built WWI fighter airplane, the Thomas-Morse Scout.

Deemed substandard in both performance and handling, the Scout was not considered adequate for European combat and found its place as a stateside advanced trainer. Of the 1,000 planes built, many were restored, some making it into war movies, but few remain today.



At the Museum

The Day the Music Died



On February 3, 1959, Iowa was home to one of the great tragedies in Rock & Roll history. Following their performance at the Surf Ballroom in Clear Lake, musicians Buddy Holly, Ritchie Valens and "The Big Bopper" J.P. Richardson, along with pilot Roger Peterson, died when their chartered Beachcraft Bonanza crashed in a nearby field due to wintry conditions. They were enroute to Moorhead, Minnesota, for the next performance of their Winter Dance Party tour.

Numerous tributes to the event and its victims exist including an annual memorial concert at the Surf Ballroom, Don McLean's iconic song "The Day the Music Died" and this exhibit at the Iowa Aviation Museum.

Come Celebrate Aviation with Us!

Youth Aviation Day

Saturday, August 29

Plane Rides • Tours • Educational Programs

Annual Fly-in &

Iowa Aviation Hall of Fame Induction

Sunday, August 30

Iowa Aviation Museum ~ Greenfield

Join Us!

As more stories, biographies, historical information, memorabilia, and aircraft are acquired, the museum is running out of space! We need additional space for these to be properly displayed. Funding is needed for new design and construction, updating current lighting, maintenance, and restoration of aircraft, and adding audio and visual aids to displays. Each contribution is appreciated and we will do our best to maximize your efforts. Please note that our 501c3 tax status makes your contributions and volunteer services tax deductible. The form below may be used to become a member, renew membership, or donate to help preserve Iowa's aviation history. For more information, call 641-343-7184.

Iowa Aviation Museum Membership and Donation Form

Annual membership – Single \$50 Family \$75
Includes free admission to the museum

Name _____

Address _____

City _____ State _____ ZIP _____

Email _____

Annual Membership: (Single - \$50 or Family - \$75)\$ _____

*Additional contribution\$ _____

Total\$ _____

Pay by cash, check, Mastercard or VISA:

MC/V# _____ Exp. date _____

How would you like to receive future copies of the Newsletter? Email Postal mail

*Additional contributions will go into the operating fund unless designated below:

building fund _____ audio/visual aids _____ electrical upgrade _____

aircraft restoration/maintenance _____

Please fill out this form and return to:
Iowa Aviation Museum, PO Box 31, Greenfield, IA 50849

Iowa Aviation Museum
PO Box 31
Greenfield, IA 50849

***OPEN* MAY 1 - OCTOBER 31**



MUSEUM HOURS

Monday thru Saturday: 10 a.m. to 5 p.m.

Sunday: 1 p.m. to 5 p.m.

Closed Holidays

www.flyingmuseum.com

FACEBOOK: Iowa Aviation Museum

641-343-7184 aviation@iowatelecom.net

Contact the museum to schedule a large group tour.



IOWA AVIATION MUSEUM

HOME OF THE IOWA AVIATION HALL OF FAME