

From  
**Balloons**



To  
**Ballistics**

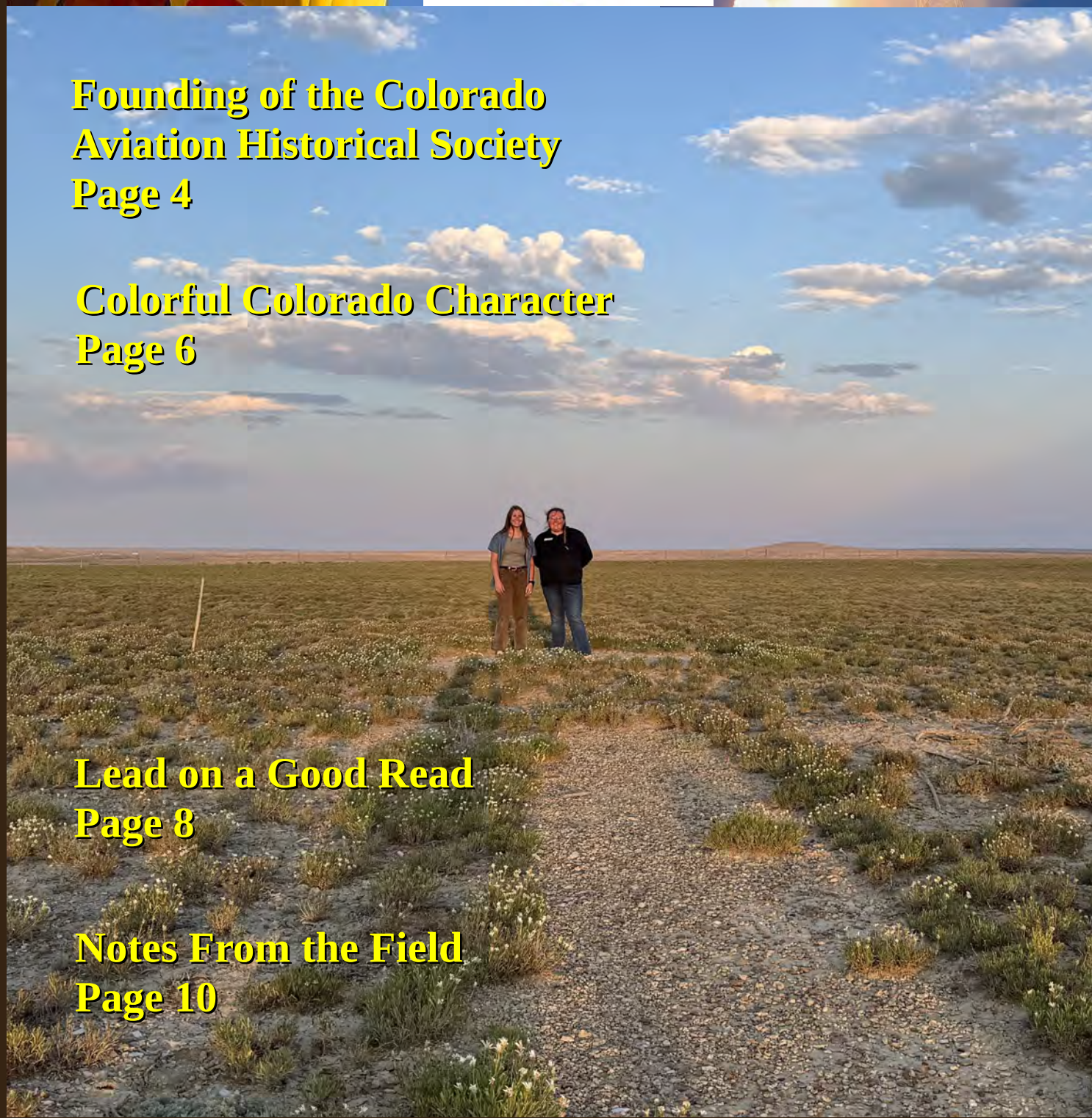


**Founding of the Colorado  
Aviation Historical Society  
Page 4**

**Colorful Colorado Character  
Page 6**

**Lead on a Good Read  
Page 8**

**Notes From the Field  
Page 10**





## Contents

Cover	Page 1
Contents/CAHS Info	Page 2
President's Report	Page 3
Mystery Quiz Answer	Page 3
Founding of the Colorado Aviation Historical Society	Page 4
Colorful Colorado Character	Page 6
Lead on a Good Read	Page 8
Intro to Aviation Archaeology	Page 9
Notes From the Field	Page 10
Medicine Bow Airport	Page 12
Mystery Quiz	Page 13

Cover Photo: Evening sky meets the prairie in Larry Liebrecht's photo taken at the site of the Medicine Bow Airport. Standing on the field's original marker circle are Megan Stanfill, Executive Director of the Alliance for Historic Wyoming, and assistant Kendra Sollar. The CAHS Aviation Archaeology group is helping local organizations in the effort to preserve this important artifact of western history. See story on page 12.

## **Your article in Balloons to Ballistics**

The Colorado Aviation Historical Society is soliciting articles that relate to Colorado and aviation from interested contributors. We're looking for submissions that speak to any subject that you would like to see in print (i.e. aeronautical memorabilia, airports, aviators, aviation businesses, astronauts, etc.). If you have something to offer please forward it at your earliest convenience.

Articles should be submitted in a Times New Roman (12 font) format, and have an unjustified right edge. Please do not insert photos into the article, but add them each as an additional jpg. attachment and include a caption for each.

Submit your article(s) or questions to:  
aviator\_b@outlook.com

## Journal Staff

Editor-in-Chief  
Keith Shaddox

Managing Editor  
Brian Richardson

Feature Contributors  
Brian Richardson  
Dr. Penny Hamilton  
Ron Miller  
Ernie LeRoy  
Keith Shaddox

Proof Readers  
Dawn Resling  
Dave Kempa  
Brian Richardson

Photographers  
Brian Richardson  
Dave Kempa  
Larry Liebrecht

Creative Designs  
Steve Kelly  
Mike McRhodes

From "Balloons to Ballistics" is an official publication of the Colorado Aviation Historical Society. Our office and the Colorado Aviation Hall of Fame are located at the "Wings over the Rockies Air & Space Museum, located at 7711 East Academy Blvd, Denver, Colorado 80230.

Mailing address:  
Colorado Aviation Historical Society  
7711 East Academy Blvd, Denver,  
CO 80230  
Email: [coloradoahs.org@gmail.com](mailto:coloradoahs.org@gmail.com)  
Website: [www.coahs.org](http://www.coahs.org)

## President's Report

### Keith Shaddox



It has been a busy quarter since the last edition of the Journal was published in March. Society volunteers continue to make great strides in meeting our founding fathers three basic principles, which are to collect and preserve Colorado Aviation history; create a museum to display this history and educate the public; and, finally, to institute a Colorado Aviation Hall of Fame (CAHoF) that will preserve the legacy of our most important contributors: past, present, and future.

Kudos go out to our dedicated AvAr researcher and board member Larry Liebrecht. Larry's efforts to document the Medicine Bow airport site have been of great value to that Wyoming community as they work to preserve an important stop along the original transcontinental air mail route.

Society board member Col. Ernie Leroy, USAF (ret), AvAr team member and internationally recognized aviation archaeologist, recently uncovered a long-forgotten, unique artifact that had been hidden away for decades in the back of a remote, out-of-the-way airport hangar. Platte Valley Airpark (18V) is situated about 18 miles north of Denver International Airport (DIA), close to the separation line between Weld and Adams County. Created in the early 1960's, this airport has a storied and interesting past (I foresee a future article in the journal). Definitely check out the article on page ten of this issue to learn more about this incredible find.

Adding some intricate touches to our recently renovated Hall of Fame (HoF), such as improved lighting, strategic artifact repositioning and comfort seating for guests, volunteers have been studiously tweaking the finer points of establishing our exhibit as a first-class museum display in accordance with professionally established standards.

Continued on page 12

## Mystery Quiz Spring 2025

In each issue of the Journal we will present a photograph from the Society archives and challenge you, the reader, to provide information about the subject.

The challenge for the Spring issue: *Identify this once popular, but now long closed, Colorado airport.*



This 15 April 2004 aerial view of Aurora Airpark shows little activity at the largely abandoned airfield.

First depicted on a 21 October 1948 USGS aerial survey photograph, the actual date of construction of the East Colfax Airport, as it was first known, was sometime between 1945 and 1948. It was listed as having a single unpaved, NW/SE runway.

Between 1974 and 1976, the field was renamed Columbine Airport, which must have confused the Dickens out of many area pilots as there was also another Columbine Airport in nearby Littleton.

Sometime between 1982 and 1985, the field was once again renamed, but now boasted a NW/SE paved runway. The third - and final - name was Aurora Airpark.

By 1992, Aurora Airpark was advertising an additional NE/SW unpaved runway, as well as a number of small hangars and hardstands on the NW and NE sides of the airfield. A full service FBO was operating on the NE side of the airport.

Due largely in part to Denver International Airport (DIA) being constructed just five miles north of the field, Aurora Airpark was finally closed in 2004 with little fanfare, but it saddened a great many aviators from around the state who enjoyed its unrestricted activities.

While far from the longest-continuously operated airport in Colorado, Aurora Airpark certainly gave other state airports a run-for-their-money. Fixed-base-operators, private aircraft owners, skydivers, warbird pilots, aerial surveyors and mappers, aerial applicators, experimental builders, aircraft designers, air-taxi operators, and entrepreneurs, operated from Aurora Airpark over its 56 years of existence.

Unfortunately, There was no winner for this quiz.

#### References:

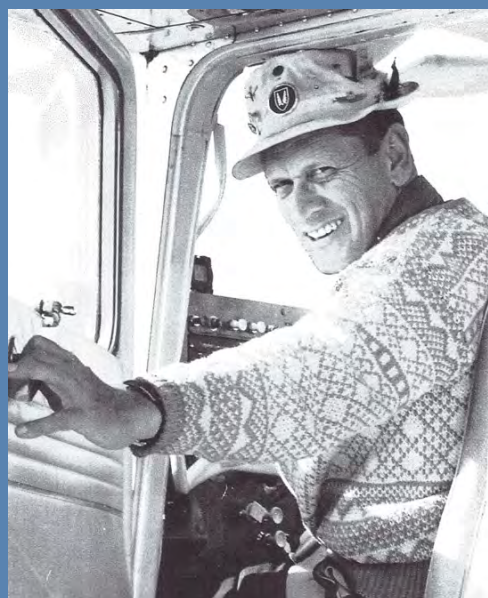
1. Colorado Aviation Historical Society Archives: 4 May 2024 Kevin Kennelly Interview
2. Abandoned and Little-Known Airfields
3. Kevin Kennelly Collection
4. Aurora Airpark - Under The Radar: Airport Journals, 1 April 2003

# Founding of the Colorado Aviation Historical Society

By Brian Richardson

With our Society's Diamond Jubilee – that's right, we're going to be 60 in 2026, we I thought it appropriate to provide our readership with a bit of insight as into the road traveled by our founding fathers. Between the late 1950's and early 1970's, numerous state aviation historical societies filed documents of incorporation and established themselves as respected repositories of local history. Our society was one such organization.

The Colorado Aviation Historical Society (CAHS) can trace its roots back to early 1966. One individual who saw the importance of capturing a segment of our state's heritage that was beginning to disappear at an alarming rate was visionary Ed Mack Miller.



Eddie Mack Miller in the cockpit of his Cessna 182 in the late 1960's (Photo: CAHS Archives)

Ed was a prominent figure in Colorado's burgeoning aviation industry during the mid-twentieth century. A World War II Army Air Corp pilot, he went on to become a training Captain for United Air Lines (UAL) in Denver, qualified to fly everything in their fleet. He also served with the Colorado Air National Guard (COANG) as a fighter pilot, and was the air show announcer for the COANG "Minute Men" jet demonstration team. Having earned a degree in

journalism, Ed was also a prolific author, publishing several books about business aviation and the US Air Force. He also wrote a great number of technical flight training documents for UAL, while also finding time to pen numerous articles for popular publications such as Flying Magazine. <sup>1</sup>

Stunned by the fact that so many of his friends and professional acquaintances, (most of whom had been pioneering aviators) were beginning to pass without having their legacies recognized, Ed steeled himself to ensure that they would not be forgotten. Realizing that he couldn't tackle this project alone, he formulated a plan to recruit other enthusiasts that could make his dream a reality.

Untold hours were spent by this group outlining the society's constitution. Finally, the official aarticles of incorporation and by-laws for the society were conceived and committed to paper, then sealed on 1 May 1966. Technically speaking, this was the birthdate of the CAHS.

The purpose of CAHS was three-fold. First, and foremost, it was to preserve Colorado aviation history. Second, it was to build a museum to educate the public and future generations. Third, to institute a Colorado Aviation Hall of Fame (CAHoF) where persons who had made great contributions to the development of aviation in the state might be properly recognized and remembered.

The driving force that really formed the society during that first year was the team of Ed Mack Miller and Dody Engel. Dody, a contract secretary at UAL assigned to transcribe Ed's technical manuals, was an avid history buff. Her husband, Dale, a maintenance technician at UAL encouraged her work with the fledgling society.

Ed reached out to many of his contacts in the local Antique Airplane Association (AAA) , and generated interest at every opportunity, while Dody processed correspondence and handled most of the routine business tasks, usually funding this out of her own pocket. General meetings were scheduled and new members began to trickle in as word spread.

From the initial pool of community members that assisted in giving birth to this society, an executive Board of Directors (BoD) was nominated and confirmed.

Continued on page 5



## “Founding” from page 4

These first five officers were: Mr. Kenneth L. Moe, Chief Pilot for Mountain Bell, who was killed in an aircraft accident in 1976; Dr. Paul Lundell, local dentist and private pilot; Capt. Ed Mack Miller, United Air Lines flight instructor and author, served as second CAHS Pres. In 1967 – 1968; Mrs. Dody Engel, United Air Lines UAL contract secretary and first secretary of the CAHS; Mr. Don Taylor, United Air Lines pilot and flight instructor, served as first CAHS President (1967-partial).

The society received an incredible boost when on Wednesday, May 10, 1967 Hal Davis, general manager of local radio station KHOW and member of the CAHS BoD, hosted a kickoff luncheon for the society at the broadcast studios in the Petroleum Club Building. Following this, thirty minutes of air time was provided for the society to inform listeners about its purpose. From that point on, the society literally took off.

Early in 1969 the BoD had received many nominations for the first class of inductees into the Hall of Fame. Ten were eventually selected, all of whom had made their distinguished contributions prior to November 11, 1918. Five were still living, five were not.



Dody Engle at the Society booth during the 1974 UAL 40<sup>th</sup> anniversary celebration (photo: CAHS)

For this grand occasion the Brown Palace Hotel in Denver was booked. Mrs. Alverta Wilson, wife of Mr. Ray Wilson (CAHoF 1970), founder of Frontier Airlines, served as the banquet chair. Renowned author Mr. Ernest K. Gann was the guest speaker, and Col. Jack Wilhite (CAHoF 2004), was our first master of ceremonies. By all accounts the first CAHoF event was a resounding success with 483 guests in attendance.

Over the past 56 years, the society has held an annual banquet with the exceptions of 1975 and 2007, when

there were no nominees to the HoF, and in 2020 with the Covid-19 outbreak.

Space was provided for a display area and small museum in the United Air Lines baggage area of the terminal building at Stapleton Airport in the late 1960's. Included in this display was the Curtis Jenny biplane, loaned to the society by the Colorado Antique Airplane Association (AAA), that is now hanging in concourse “C” at Denver International Airport. Many of the AAA members played an integral part in founding and supporting the society. This modest museum would remain until the closing of Stapleton in 1995. Shortly after this the society took up permanent residence in Colorado's premier aviation and aerospace museum, Wings Over the Rockies.

That same summer the societies' logo was created and the phrase “Balloons to Ballistics” was originated. While other organizations have copied it, as far as we can tell it was originated with CAHS.

Over the past six decades the society has continued its work to preserve and display our rich aviation heritage. Membership, much like the tide, has risen and ebbed on a number of occasions as will most all-volunteer organizations.

All of the original members of the BoD have long since passed. Of the original two spark plugs that powered the society, Ed Mack Miller and Dody Engel; both spent the remainder of their lives serving the society. Ed served as president between 1967 and 1968. He served in other BoD positions and volunteered for many special projects and functions until he flew west in 1978. Dody would serve as society secretary for 50 years, until just shortly before she flew west in 2017. In 2002 Dody received the society's Special Recognition Award for her [then] 34 years of service. While not a laureate in the HoF, I can think of no other that should deserve that unique honor based solely on her devoted years of service to CAHS.

Colorado Aviation Historical Society will be celebrating its 60th anniversary Friday, May 1, 2026. We will keep you informed as plans for this momentous event develop.

*<sup>1</sup> Following a heart attack in 1975 that grounded Ed from commercial flying, he continued his passion for flight by flying gliders at Black Forest Glider Port. He also continued to pen positive articles promoting general aviation in the popular press.*

# Colorful Colorado Character Elizabeth "Betty" Haas Pfister

By Dr. Penny Hamilton

Born in 1921 on Long Island, Betty grew up surrounded by airfields and aviation manufacturing. In the late 1920s newspapers glamorized the daring women pilots of that era. Betty's first flight was with a barnstormer in an open biplane. She loved the pure joy of soaring like a hawk in the sky. She made a deal with her father, if he paid for flying lessons, she would stay in college. In 1941, she became a pilot and graduated from Bennington College in Vermont.

Betty joined WASP class 43-W5. In September, 1943, she joined other WASP in the ferry command. Betty flew a variety of military airplanes. Because of her prior flying experience and aviation skills, Betty was most often assigned to fly larger, complicated airplanes for delivery to U.S. Military bases.



Betty's WASP class 43-W5 yearbook picture, circa September 1943 (Photo credit: Penny Hamilton, Ph.D.)

Betty flew the Douglas C-47 military transport, which was originally a civilian DC-3 airliner design. Ironically, if it had been a passenger airliner, back in 1943, the airline executives would not have hired Betty because of her gender.

Betty also flew the Boeing B-17 Flying Fortress, a four-engine bomber. Betty often flew the Boeing B-24 Liberator, which was a long-range heavy bomber. These were not easy planes to fly. The B-17 could fly higher than the B-24, which was faster.

Crews often complained that the B-24 was difficult to fly with stiff and heavy controls. And, yet, Betty Haas Pfister safely flew them. (Wikipedia)

After the WASP were disbanded, Betty continued to ferry military planes under contract as a civilian pilot. Betty became a Flight Instructor in California. In October, 1946, Betty was able to purchase an Army surplus Bell P-39 Airacobra fighter airplane. She bought it for less than \$1,000. That was a whole lot of airplane at a bargain basement price.

She named her plane, "Gallopig Gertie." Being surplus and Army drab green, Betty prevailed on family friend, famous artist, Norman Rockwell, to get creative with her new paint scheme. The stunning result was a red and white racing design that emphasized the lines of the P-39. A true work of art on the ground and in the air with Betty at the controls.

Betty flew Gallopig Gertie at airshows and races for the next three and a half years, averaging over 100 hours each year in her P-39. In 1950, and again in 1952, she won the International Air Race, as well as many other smaller races around the country.

As fate would have it, a WASP friend invited Betty to her wedding in Carbondale, Colorado. Betty was intrigued with Aspen. She did not go to the wedding but asked her WASP buddy if she knew of a job in Aspen. A few days later Betty was working in her friend's Aspen boutique. While skiing on Ajax Mountain, Betty spied a fellow standing in the lift line with a cardboard sign hanging around his neck that read, "If you think I'm handsome, I'm available" followed by his four-digit phone number. Betty called him. In 1954, Art Pfister and Betty married. Art flew the "Hump," over Burma, China, and India during World War II.

They both loved flying and skiing. They bought the Lazy Chair Ranch on Buttermilk Mountain. They lived there the rest of their lives. Art encouraged Betty to give up air racing.

Continued on page 7

## “Betty Pfister” from page 6

Betty sold Galloping Gertie. But, by no means was Betty done with the freedom she felt in the air. Even as the mother of three daughters and a civic leader in the Aspen community, Betty became a glider pilot. She flew hot air balloons, competing in races in the Swiss Alps. In 1968, Betty and Art founded the Pitkin County Air Rescue, in partnership with the Civil Air Patrol. Betty tirelessly worked with the Aspen Valley Hospital building a heliport.



Betty with her beloved Bell P-39 “Galloping Gertie.”  
(Photo credit: Penny Hamilton, Ph.D.)

That opened a new world to Betty, Helicopters! In 1964, Betty learned to fly helicopters and fell in love all over again. She was the 52nd woman in the world to obtain a helicopter license. She became an esteemed member of the Whirly Girls, the international organization of women’s helicopter pilots. In the early 1970s, Betty became a member of the United States Helicopter Team. Her team represented the U.S. at the World Helicopter Championship in both England, and in Russia. Upon her return home, Betty bought her own Bell-47-G. She painted it to resemble a pink, yellow, and orange butterfly. She named her, Tinker Bell. Betty told a friend, owning and flying that helicopter was one of the highlights of her life.

Betty was a proud 40-year member of the Ninety-Nines (women pilots). In 1981, she organized the Aspen 99s Chapter. In 1984, Betty was inducted into the Colorado Aviation Hall of Fame. In 1985-87, Betty became President of the Whirly Girls. In 1992, Betty received the National Aeronautic Association (NAA) Katharine Wright Memorial Award. In 1994, she was given the NAA Elder Statesman of Aviation Award. In 2001, Betty was inducted into the Women in Aviation International Pioneer Hall of Fame. Finally, in 2010, Betty and the other living WASP of World War II were given the long overdue Congressional Gold Medal. As she said at that time, “Better late than never!” In 2011, Betty Pfister flew West from Aspen, Colorado.

(Editor’s Note: Dr. Penny Rafferty Hamilton [CAHoF 2011], a prolific author and historian graciously consented to our reprinting of this article from Grit and Lace, 5/10/2025. If you’d like to view a truly great video interview with Betty, right click on the link below, then click on Open Hyperlink. If it does not open, you can copy and paste this link directly into your browser.)

<https://gritandlace.substack.com/p/elizabeth-betty-haas-pfister>

On a personal note... I met Betty Pfister on several occasions over the years, such as at Hall of Fame banquets and while presenting educational seminars for the FAA. She impressed me as being extremely knowledgeable and genteel – the sort of person that you could easily warm-up to and get to know. After reading Dr. Hamilton’s article and watching the attached video, I feel a great sense of loss at having missed an opportunity to get to know an incredible Colorado aviator in my own backyard. If you are truly interested in Colorado aviation history, please plan to attend the 2025 Colorado Aviation Historical Society Hall of Fame banquet this coming October. Many of the laureates still attend and meeting them can be truly enlightening. – Brian

An airplane might disappoint any pilot, but it will never surprise a good one.

- Len Morgan, Author

The scientific theory I like best is that the rings of Saturn are composed entirely of lost airline luggage.

- Mark Russell, political satirist and comedian



# Lead on a Good Read

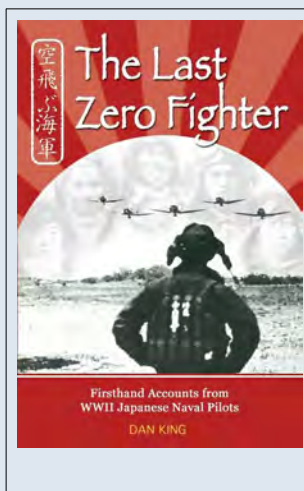
By Ron Miller

From time to time we receive reports and reviews about aviation books that might be of particular interest that we like to share with our fellow members. If you come across a good aviation or aerospace read and would like to recommend it to others who you think may enjoy it, please send a note along to [aviator\\_b@outlook.com](mailto:aviator_b@outlook.com) Everyone appreciates a lead on a good read!

In this edition of the Journal member Ron Miller, recommends: The Last Zero Fighter: Firsthand Accounts from WWII Japanese Naval Pilots by Dan King; 348 pages includes 78 photos; ISBN-13 9781468178807; paperback \$22.95

[http://www.amazon.com/Last-Zero-Fighter-FirsthandAccounts/dp/1468178806/ref=sr\\_1\\_1?s=books&ie=UTF8&qid=1390152114&sr=11&keywords=the+last+zero](http://www.amazon.com/Last-Zero-Fighter-FirsthandAccounts/dp/1468178806/ref=sr_1_1?s=books&ie=UTF8&qid=1390152114&sr=11&keywords=the+last+zero)

## Summary



I bought the Kindle version for portable reading. Unfortunately, this compressed the pictures to a loss of detail. The book was written by an American Pacific War history buff who learned to read and speak Japanese. Because he could speak Japanese, he was able to converse with Japanese WWII veterans in their own language and often in their homes. This is a unique situation in that there has

been little about WWII published in English showing the Japanese side of the conflict.

The book is not about the reasons for the war or really anything political. It gives us the personal stories of 5 Japanese Navy WWII aviators, one of whom participated in the Pearl Harbor attack.

The Japanese aviators were even younger than the US aviators. One of the men signed up for the Japanese

Navy at age 16 in order to learn to fly. By age 20 these fellows, if they lived that long, were well-experienced combat aviators except for the final interviewee who started later in the war.

All of them had moments when they knew that Japan was going to lose the war. Generally, the revelation occurred as the crews looked upon swarms of shiny new blue and white US Navy aircraft. The Japanese pilots were then flying old aircraft patched together and were losing them at terrible rates and had been scrounging for fuel, parts and ammo for a very long time. They had also been losing their comrades steadily until toward the end in one instance a group of 38 pilots had been whittled down to where only 3 survived the war.

There are portrayals of personalities involved, both the famous aces and the commanders who would send out pilots on kamikaze missions if they just met the commander's gaze wrong. There also was the commander who, knowing that the pilots were conspiring to execute their own kamikaze missions after the surrender was announced, had the propellers removed from all the base aircraft thereby saving the pilot's lives. There are tales of ragtag groups of airmen being moved from island to island in order to be conserved for when the homeland is invaded. There is also the story of a too-inexperienced pilot being sent out with others of his class to take 12 Zeroes to the battlefield but in their inexperience and bad luck only a single aircraft and 2 pilots completed the journey. And one pilot relates how he observed the B-29 Bock's Car over Nagasaki from the ground as he and his fellows were on a day off in the hills - and they always wondered if they could have prevented that drop.

King also tried to correlate dogfights and their participants. Many of the described dogfights by the interviewees ended with the name of the US airman who'd been shot down. But in much larger numbers were the names of the Japanese airmen, friends and comrades of the interviewees, who didn't survive their missions.

This book really personalizes the Japanese side in a way that should not be unexpected but isn't usually found. They were young men who wanted to fly and who found themselves in a war trying to survive but also doing their duty even while experiencing terrible losses.

A good read.



## Intro To Aviation Archaeology Field Exercise

The Colorado Aviation Historical Society (CAHS) will be hosting its third annual Intro to Aviation Archaeology Field Exercise on Saturday, August 23, 2025. This free, half-day excursion is open to all society members as well as the general public.

Each year the CAHS Aviation Archaeology (**AvAr**) program offers an opportunity to visit a historic aviation site in Colorado. Guided by experts recognized in aviation archaeology, the site is chosen to provide an intimate look into what is involved in this field of science, along with an in-depth look at the history of each site.

This year, **AvAr** has chosen the Wichita State Martin 404 (1970) crash site. Situated at about 11,000 feet MSL, it is a popular destination for hundreds of hikers every year. Classified as a moderate challenge, with about 200 yards of relatively steep trail, AvAr splits the participants into two groups; those who can still sprint up trails like this, and the rest of us who huff and puff. The latter group stops frequently and takes their time, usually arriving about ten minutes after the athletes. (Note: If you have a health concern, but still would like to attend the event, please contact Brian Richardson at [aviator\\_b@outlook.com](mailto:aviator_b@outlook.com) to discuss your concerns.)

Suggested items you may want to bring are comfortable hiking shoes, hat, sunscreen, water (at least one 16 Oz. bottle), long sleeve shirt or light jacket, any necessary medications you might require, and a walking stick (the latter being an absolute must).

Participants are expected to be at the rendezvous point at 0845 for check-in. The entire event generally takes about three hours, so you can expect to be back in your vehicle and headed home by noon. Everyone who completes this expedition will receive a CAHS commemorative challenge coin.



2024 WSU Hike participants (Photo: Larry Liebrecht)

If you are interested in joining other like-minded individuals on this one-of-a-kind adventure, please contact Brian at [aviator\\_b@outlook.com](mailto:aviator_b@outlook.com) for further information.

## CAHS Has Attained Gold Status

Our organization has earned a Gold Seal of Transparency from the Candid/Guiestar non-profit rating organization. Foundations and corporate donors look at these ratings to verify and research nonprofits that are aligned with their priorities. More than 75,000 organizations have earned Seals, making the GuideStar Seal the most widely adopted symbol of transparency in the U.S. social sector. Non-profits can strive for four levels of ratings, beginning with Bronze, and working up to Silver, Gold, and Platinum. CAHS has completed the requirements to attain a Gold Seal. Donors can have confidence that 501(c)3 organizations with this status are stable, reliable and committed to the values that they espouse. Click on this link to view our current profile.

[Colorado Aviation Historical Society | Candid](#)

Gold  
Transparency  
2025

Candid.

## Notes From the Field:

### Hanger Diving at Platte Valley Airpark-The Gibson Girl

Ernie LeRoy



BC-778 "Gibson Girl" radio transmitter (Photo: Arnold Reinhold)

The use of radio to aid in rescuing survivors of maritime accidents came to the forefront after the sinking of the RMS Titanic in 1912. Lifeboats were equipped with spark gap transmitters such as the Marconi Type 241, c. 1920. These operated using Morse code on 500 kHz, the international distress frequency at the time. This frequency had the advantage of long-range due to ground-wave propagation and was constantly monitored by all large ships at sea after the sinking of the Titanic. However, due to its wavelength of 600 meters, a long antenna was required to achieve good range. This was accomplished using kites or balloons, with a thin wire functioning as both the tether and the antenna.

#### Air-Sea Rescue

In the early days of long-distance and overseas flying, a crude form of emergency radio was sometimes installed in the aircraft. Aircraft that carried such emergency transmitters operated on long-wave or short-wave

which were powered by dry batteries depending on the destination of the flight. It was not until 1941 that the German Luftwaffe introduced an ingenious emergency transmitter, designed by the German firm Fieseler & Höpfner. It was completely self-contained, buoyant, practically waterproof, small and powered by an internal hand-driven generator.

During World War II, Germany developed a hand-crank 500 kHz rescue radio, the "Notsender" (emergency transmitter) NS2. It used two vacuum tubes and was crystal-controlled. The radio case curved inward in the middle to enable the user seated in an inflatable life boat to hold it stationary, between their thighs, while the generator handle was turned. The distress signal, in Morse code, was produced automatically as the crank handle was turned. A NS2 unit was captured by the British in 1941. They developed a copy, the Dinghy Transmitter Type T1333. Britain gave a second captured unit to the United States, which produced its own copy, the SCR-578. United States Army Air Forces aircraft carried the SCR-578 on over-water operations. Nicknamed the Gibson Girl because of its hourglass shape, it was supplied with a fold-up metal frame box kite, and a balloon with a small hydrogen generator, for which the flying line was the aerial wire. Power was provided by a hand-cranked generator, giving it a range of 200 miles. Keying could be automatic SOS or manual.

#### Automatic SOS Code

When turning the handle of the hand generator (approximately 2 revolutions per second), automatic keying of SOS and long dashes on MCW or CW was transmitted. A molded cam, mounted on a camshaft, carried a series of depressions that operated the keying contacts. In addition, a hand key could be used to transmit other messages, such as instructions to aircraft flying over. The simplicity of operation and automatic transmission permitted the set to be operated by any member of the crew. A post-World War II version, the AN/CRT-3, which added a frequency in the 8 MHz range, was in use by ships and civil aircraft until the mid-1970s. The USA version, known as BC-778, was shaped similarly to the German NS2. This characteristic feature quite soon led to the set affectionately being called 'Gibson Girl', a name taken from the narrow-waisted female drawings of 1890s fashion artist Charles Gibson.

Continued on page 11



## “Gibson Girl” Continued from page 10

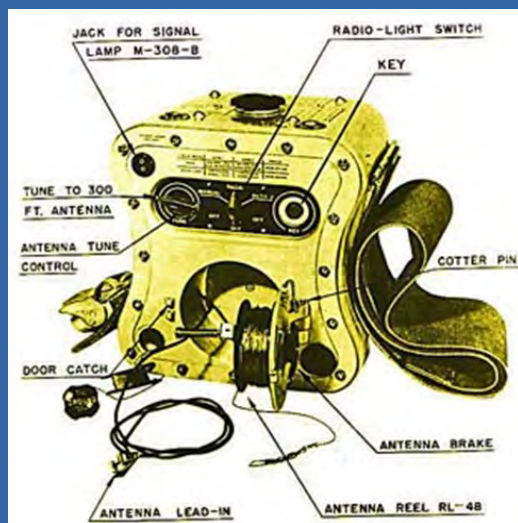


Diagram of BC-778 showing major components (photo: Louis Meulstee-Wireless for the Warrior)

Its primary design came from wartime Germany. Emergency transmitters enabled ditched air crews to transmit an emergency call on a frequency of 500 kHz (and in some models also on short-wave), used by international radio alarm signals. By using direction finding equipment, a rescue party could take bearings of the distress signals and determine their location or just “home” in on the signal by the rescue aircraft's radio compass. It must be noted that the 500 kHz emergency frequency has been abandoned, and, its function has been taken over by satellite-based systems.



Illustration of “Gibson Girl” circ. 1900 (from Louis Meulstee – Wireless for the Warrior)

Both NS2 and NS2a operated on the international distress frequency of 500 kHz (600 metresmeters). To obtain a good range, a long-wire aerial of reasonable length was required. This was normally provided by attaching the aerial, 260 feet of stainless-steel wire,

to a box kite. It was reeled out by a unit mounted on the front panel of the set.



Box kite used to extend antenna wire (Photo: Louis Meulstee-Wireless for the Warrior)

The earth, consisting of 10 feet of stainless-steel wire terminated to a sinker, was lowered over the side of the dinghy into the sea. When the wind was less than 13 mph, the kite could not be used. A 3ft balloon was inflated by a hydrogen generator provided in a tin can with a separate inflation tube. When opened, hydrogen was generated by a chemical solid (lithium hydride or calcium hydride) coming into contact with water. An insulated grip on the inflation tube protected the user's hand against the considerable heat generated during this process.

### Post-war use and AN/CRT-3

The SCR-578 was used until the late 1960s and early 70s, not only by the Air Force and Navy, but also by civilian aircraft. Later versions of the set were the AN/CRT-3 (issued in 1945), which operated on distress frequencies of both 500 kHz and 8280 Hz, and still later, the AN/CRT3-A, working on 500 kHz and 8364 kHz. Mechanically, it was virtually unchanged, with a few modifications to the transmitter oscillator circuit and RF output circuit.

Ref:

[https://en.wikipedia.org/wiki/Survival\\_radio](https://en.wikipedia.org/wiki/Survival_radio)  
<http://www.wftw.nl/gibsongirl/gibsongirl.html>



## Historic Medicine Bow Airport

CAHS Board member Larry Liebrecht was invited to give a presentation to the Medicine Bow, Wyoming City Council and community members on the history and relevance of the Medicine Bow Airport site on Thursday evening, June 19<sup>th</sup>. The Medicine Bow Airport was an active stop on the Salt Lake City to Omaha airmail route beginning in 1929. Larry, as executive director of our Aviation Archaeology (**AvAr**) group, has been researching the airport for several years and has completed a comprehensive investigation which has included documenting the artifacts that remain on this historic site. Several original structures and navigation aids are located at the airport in good condition. The town of Medicine Bow, the Alliance for Historic Wyoming and the state of Wyoming have an interest in maintaining this historic airfield and preventing any future deterioration of its artifacts. Our Aviation Archaeology team members have provided a wealth of information to assist in their efforts.



Original airfield marker circle is still intact at Medicine Bow Airport. (Photo: Larry Liebrecht)

### President's Report from page 3

The Colorado Aviation Hall of Fame (CAHoF) is well established at The Wings Over Rockies Air and Space Museum (WORMAS). Gubernatorially recognized as the official site for this distinct Colorado repository of aviation knowledge, our archival data is constantly accessed by outside sources.

Archivist Jim Kelly, who regularly volunteers his time on Wednesdays, is constantly developing our historic archives, while at the same time answering the phone and responding to outside requests for sometimes ambiguous information.

Sixty years on, our society's work continues thanks to volunteers like you. Whether you want to go out into the field, work closer to home, collect data or create wonderful new displays, CAHS needs you to step-up to the plate. We need members with the spirit of Ed Mack Miller and Dody Engel to step forward and continue our mission. Without your support, CAHS cannot continue!

Give a gift of membership  
in the Colorado Aviation  
Historical Society  
Go to [coahs.org](http://coahs.org) and scroll down to  
"BECOME A MEMBER"



## Mystery Quiz Spring 2025

In each issue of the Journal, we will present a photograph from the Society archives and challenge you, the reader, to provide information about the subject. Anyone who responds with the correct answer will be mentioned in the following issue, and the first person to answer will win a CAHS commemorative challenge coin. Send your response to [aviator\\_b@outlook.com](mailto:aviator_b@outlook.com) at your earliest convenience to ensure your submittal is included in the next Journal. Please make certain to include a mailing address where you'd like to receive the coin.

The challenge for this issue: Identify the make and model of this barnstorming era favorite, seen here in the skies above Denver.



TravelAire Service has been providing Executive Aircraft Charter and Aero Medical Services regionally and nationally since 1984. Our modern fleet of fixed wing turbo and jet engine aircraft are matched and custom tailored to your specific operational needs by an expert staff of highly trained, dedicated, customer service oriented personnel.

# TRAVELAIRE

## CHARTER SERVICE



525 Skyway Pueblo, CO 81001 800-645-3987 [Info@TravelAireServices.com](mailto:Info@TravelAireServices.com)

## TIRED OF DIA?

Are you Considering  
Fractional Aircraft Ownership  
or a Jet Card Program?

Talk to Charters by Air Denver first,  
a World-Wide Charter Referral Service  
in business for **40** years with a perfect safety record.

- ✓ No initiation fees
- ✓ No membership dues
- ✓ No long-term commitments
- ✓ No pre-purchase agreements
- ✓ Safer Aircraft
- ✓ Immediate access to over 18,000 quality aircraft of every size
- ✓ Quotes in 20 minutes
- ✓ Airborne in 2 hours from anywhere
- ✓ Personalized Service

*Let us show you how fast, easy and affordable private air can be.*



a CAHS Community Affiliate

**CHARTERS BY  
AIR DENVER**  
Chartering the World Since 1981

Available 24/7/365  
**(800) 333-4057**  
**(303) 333-3332**  
Sales@airdenver.com

[www.AirDenver.com](http://www.AirDenver.com)



## CAHS Challenge Coins are still available

Add this 50<sup>th</sup> Anniversary coin to your collection for a donation of \$20 to the Society

Send a check to CAHS P.O. Box 201615, Denver, CO 80220

You can also order by emailing: [coloradoahs.org@gmail.com](mailto:coloradoahs.org@gmail.com) or call 303-341-7711