

FORWARD in FLIGHT

Volume 20, Issue 1

Quarterly Magazine of The Wisconsin Aviation Hall of Fame, Inc

Spring 2022



WI WASP Connections
WASPs Militarization for Veterans' Status
Women in Early Wisconsin Aviation
WWII Surplus Aircraft Disposal



*March
Women's History Month*

Women Airforce Service Pilots - WASPs of World War II - Avenger Field, Sweetwater, TX

CONTENTS.....

PRESIDENT'S MESSAGE

- 3 Building Relationships
Tom Thomas

REVIEWS - BY THE BOOK

- 4 Yankee Doodle Gals - Book By Amy Nathan
WASP Women Pilots of World War II
- 22 Enduring Courage - Book By John F. Ross
WWI Ace of Aces Eddy Rickenbacker

WISCONSIN CONNECTIONS

- 4 WI WASP Research by WAHF - Chris Campbell

FROM THE AIRWAYS

- 6 Women In Aviation - Andrea Weeks

KELCH AVIATION MUSEUM

- 7 New At The Museum - Hannah Shickles

HISTORY HANGAR

- 8 Wisconsin's REA B-17 - Michael Goc
- 9 WWII Surplus Aircraft - Chris Campbell

FROM THE ARCHIVES

- 14 Women in Early Wisconsin Aviation - Michael Goc

WORLD WAR II

- 16 WASPs Militarization for Veterans' Status
Chris Campbell

WISCONSIN'S AIRPORTS of The Past

- 19 Larson Brothers Airport - Larson, WI

DEPARTMENTS

- 24 MEMBER SPOT LIGHT
- 26 IN MEMORIAM
- 26 CALENDAR OF EVENTS

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AIRCRAFT OF EDDIE RICKENBACKER

See Page 22



The **Nieuport 28 C.1** A French biplane fighter aircraft flown during World War I, was built by Nieuport. This fighter was also the first choice for the projected American "pursuit" squadrons. A shortage of SPADs led to Nieuport 28s being issued to four American squadrons between March and August 1918, becoming the first aircraft to see operational service with an American fighter squadron.



The **SPAD S.XIII** - A French biplane fighter aircraft of the World War I. During early 1917, the S.XIII proved to be one of the most capable fighters of the war and one of the most-produced, with 8,472 built.

EDITOR WANTED

WAHF is seeking an Editor and Contributing Editors for future additions of *Forward in Flight*.

CALL FOR PAPERS

Do you have a historical aviation story to tell & share in *Forward in Flight*? WAHF is always seeking articles for publication in future issues of FIF.

Should you have an interest, Please contact
WAHF President Tom Thomas
608-332-0490

WAHF MEMBERSHIP



Time to Renew your WAHF membership?
See inside back cover for more information

PRESIDENT'S MESSAGE

By Tom Thomas



Back in the early 70s I met Norm Poberezny when I joined the Wisconsin Air National Guard at Milwaukee's Mitchell Field, home of the 128th Air Refueling Wing (AWR). Norm was an active KC-97L Flight Engineer and was in charge of managing the unit's Flight Engineer Standardization program. My first flight in the 6 engine KC-97L was on January 21, 1972 and my last flight was on

January 8, 1978. For me, it was a giant step backwards from the all jet Boeing KC-135 which I'd flown for 4 years prior in the Air Force and left as a '135 IP.

Norm and I often flew together on both local Milwaukee area flights and longer deployments around the states and across "the pond" to Europe. One of my most memorable flights was returning from the east coast and losing the two right Pratt&Whitney/PW '4360' recip engines on our left wing. We lost them both within 15 minutes of each other which was strange and both for unrelated problems. These were exciting times for Norm. Each one of those engines had massive 28 cylinders each so we ended up losing 56 cylinders in those 15 minutes.

I'd lost one engine flying the KC-97L a number of times, so it wasn't all that uncommon, but never 2 engine failures in one flight, both on the same wing and within 15 minutes of each other. It was a bit of a concern to me at the time, and I figured we'd have to land as soon as we were near an airport that could accommodate our 6 engine bird.

We were several hundred miles from Mitchell. We talked about our options, did some quick checklist reviews, and Norm felt we'd be able to make it home ok. Norm said we'd keep the jets running until we ran out of JP-4 jet fuel. I knew we could also burn avgas in the jets, but if we did that, we'd run out of fuel before we'd get to Mitchell Field. Again, Norm said "we'll be ok". Yet Norm, as usual, was *as cool as a freshly refrigerated pre-brined pickle*.

Long story short, we ran the jets till the JP-4 was gone and continued to fly on the two good 4360s on the right wing without any additional incidents. We were approaching Milwaukee from the east and fortunately the weather was clear. We picked up Milwaukee from the eastside of the lake and started a slow decent heading for a straight into Mitchell. We hadn't declared an emergency as we had a good flying airplane. As we approached the field and about 10 miles out, we contacted

Building Relationships

Milwaukee Approach Control, advised them of our situation, and finally declared an emergency as a precaution in case we blew a tire and ran off the runway.

We then started the jets on avgas and configured for landing. We weren't planning on having to go-around, but if we did, the 2 recip and 2 jets would take us around ok.

All of the airport's fire trucks were dispatched and waiting, all lined up next the runway when we touched down with the two failed engines feathered. There was a slight headwind and that helped us stop by the midfield turn off.

Only two engines running, we were down to one operating hydraulic pump for the brakes, hydraulic nose wheel steering and power rudder. All worked out and we accomplished a typical uneventful landing. We taxied onto the Guard Ramp and were greeted by a number of the maintainers on duty and were awaiting our arrival and knew we were coming in "wounded". What a feeling of accomplishment! We shut down the aircraft, packed up our gear, exited the plane, and started our walk back across the ramp to operations for debrief and a "Milwaukee cold one".

As we all look forward to another great summer, we can also look back at what's been accomplished and what's ahead "opportunity wise." Some challenges, just like unplanned "surprise" engine failures, may come along.

I was always secure working with Norm during those challenging events. It was all about trust knowing Norm was a trusted professional and indeed, "all would be ok". For those special friends you may have or work with, you build relationships! It's been a pleasure and continuing friendship over many years that I have known Norm and many of you.

Our mutual interests and the sharing of those "adventures" with others in our flying community are special and will always be remembered. Yes indeed, you can call them "war stories!"

Our WAHF Mission is to collect and preserve the history of aviation in Wisconsin, to recognize those who made that history, to inform others of it, and to promote aviation education for future generations.

Your WAHF Board does that throughout the year and it all comes together in the fall at the Experimental Aircraft Association in Oshkosh when we all meet up again to tell those special war stories and recognize our new WAHF inductees.

Thanks in advance, for coming to Oshkosh on October 22nd for our Inductions.

*You are all now a part of
Wisconsin's Aviation History!*



Norm Poberezny - 2019 Waukesha Airport

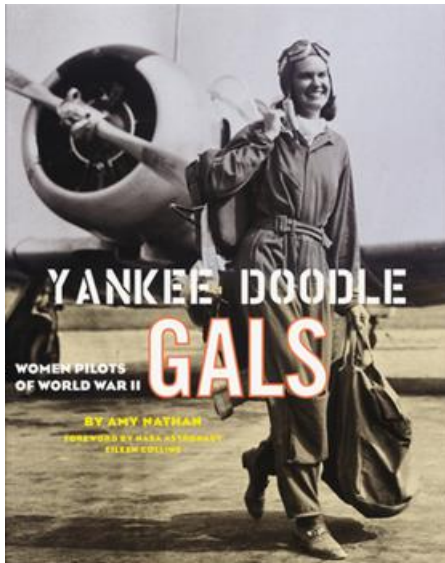


YANKEE DOODLE GALS

WASP Women Pilots of World War II

Book By: Amy Nathan

March is declared Women's History Month in celebration honoring the contributions of women to history, culture, and society. Since 1987, it has been observed annually in March in the United States. As declared annually by a presidential proclamation, Women's History Month in the United States is dedicated to reflecting on the numerous but often-overlooked contributions of women serving during WWII as Women Airforce Service Pilots (WASP) and the telling their WASP story.



Cover - Yankee Doodle GALS

Book By
Amy Nathan
Here is a new UP-DATED version of this popular book that tells the fascinating story of the first women to fly U.S. military aircraft --the Women Airforce Service Pilots (WASPs) of World War II. First published a dozen years ago, Yankee Doodle Gals has now been updated to add new photos and text about the crowning

honor the WASP pilots received just three years ago: the Congressional Gold Medal. These additions, along with an updated Bibliography and Resources section, let Yankee Doodle Gals now cover the full span of the WASPs' inspiring story. Although these pioneers were never allowed to fly in combat, they flew in many essential wartime missions--some that male pilots didn't even want to take on.

Through firsthand accounts, these women share their experiences as they test-fly newly repaired aircraft, drag banners behind their planes so male trainees can practice shooting moving targets with live ammunition, and ferry all kinds of aircraft from factories to military bases. Their courage, determination, and lively camaraderie make every page inspiring and surprising.

Yankee Doodle Gals will give today's young people a new look at World War II and show them just how dramatically society has changed since then.

There are at least a handful of books on the WASPs, many written by graduates of the program. The inspirational book, Yankee Doodle Gals, is written by a young woman, Amy Nathan, about young women. The author's liberal use of WASP trainees' own words brings their story to life. While telling the WASP story, the author uses sidebars to provide facts and details that some readers may have found unfamiliar.

Most of the book's nearly 100 images are not found in other

books on the WASPs. The pictures quickly take the reader to the 1940's and life on a military training facility. They show life in Sweetwater Texas as the WASPs experienced it. Sunbathing during off-duty days, tedious classroom sessions, and naps while waiting for departure time, each image includes a smiling WASP.

Yankee Doodle Gals was written for the adolescent reader. It was written to inspire young readers. It accomplishes that goal. Donald Lopez, Deputy Director of the National Air and Space Museum, said, "Amy Nathan has done an outstanding service by telling the WASP story in a clear and very readable book. It should inspire young women to enter into the field of aviation and help fill the upcoming need for pilots."



WISCONSIN CONNECTIONS

WASP RESEARCH BY WAHF

Compiled By Chris Campbell

We learn more about the 19 graduates and the unknown number of WASP applicants from Wisconsin nearly every day. Their story, like *Yankee Doodle Gals*, is an inspirational one.



Margaret "Peggy" Seip

MARGARET "PEGGY" SEIP

One Wisconsin applicant who was accepted into the program, Margaret "Peggy" Seip, didn't graduate from the program.

Sadly, Peggy died in a training accident a just ten days before graduation and receiving her wings.

Her family says Seip wasn't even supposed to be aboard the UC-78 Bobcat that day in August 1943,

but they learned later that she had volunteered to replace another pilot at the last minute. Margaret was with another student and their instructor when their plane's tail broke off at 10,000 feet and they spiraled into the Texas dirt, killing all three.

A Wauwatosa High School graduate, she earned a degree in English at Lawrence College in Appleton . At age 27 having earned her private pilot's license three years earlier, was one of the first women to join the Wisconsin Civil Air Patrol and taught instrument flying to military pilots. Margaret worked at Chapman's department store on Wisconsin Ave. before earning her pilot's license and traveling to Binghamton, N.Y., to attend Link Trainer school so she could train students on the flight simulator.

Jim Seip, Margaret's younger brother earned their private pilot's licenses at the same time. Jim was in Georgia training to fly B-17s when a chaplain told him the terrible news. The plane she perished in was nicknamed the "Bamboo Bomber" because its wings and tail were made from wood. More than 4,500 twin engine UC-78 Bobcats were manufactured during World War II and were used as a transition trainer so pilots could learn to use multi-engine aircraft before moving to bigger bombers or heavy transports

Margaret was the only WASP casualty from Wisconsin, is counted among the 38 WASPs who died in service to their country. WASPs were not considered part of the military thus their families could not hang gold star flags when they died and no American flag covered their coffins.

Margaret entered Army Air Force flight training at Avenger Field in Sweetwater, Texas on April 6, 1943. Together with her instructor and a fellow class-mate, Margaret was killed in the crash of a UC-78 near Big Springs, Texas, August 30, 1943, while on a routine training flight.

CAROLYN P. (WOOD) SAAS

Former Janesville resident, Carolyn Pierpont (Wood) Saas graduated in the class of 44-W-1 on 11 Feb 1944.

Posthumously awarded the Congressional Gold Medal for her service in WWII as a member of the Women Airforce Service Pilots (WASP). Carolyn died in 2006 prior to her medal being approved in 2010.



Carolyn P. (Wood) Saas

During her time with the WASP she was assigned to Childress Army Air Field (TX) and Eagle Pass Army Air Base (TX). In the performance of her duties she flew many types of military aircraft, including the PT-19, BT-13, AT-6, AT-11.

Carolyn grew up in Janesville, attended Janesville High School and graduated from Dana Hall in Wellesley, MA. She studied voice for 4 years



Post Flight Avenger Field, TX

in Chicago, making her singing debut in May, 1942.

In 1943 she gave up a promising career as a singer to join the WASPS (Women's Army Service Pilots). Before joining the WASPS, she received her private pilot's license at the Janesville City Airport. Carolyn's class (44-W-1) was dubbed the "SUPPER-WASPS" because they were the first WASPS to

wear government uniforms and the first graduates of the new stepped-up training curriculum. She received her WASP wings in February, 1944.

Over 25,000 women from across the country applied for admission into the Women Airforce Service Pilot (WASP) program.

Only 1,830 were accepted into the program and 1,024 graduated. Nineteen Wisconsin WASPs that graduated from flight training.

Continued on Page 21 - WI WASPs

....."This is not a time when women should be patient. We are in a war and we need to fight it with all our ability and ever weapon possible. WOMEN PILOTS, in this particular case, are a weapon waiting to be used".

Eleanor Roosevelt, 1942



LIFE Magazine - July 19, 1943

*Editor's Note:
Prior to Congressional action in 1977, WASP's were not classified as AAF Veterans or as military Pilots.*

LIFE Magazine however published "Air Force Pilot" on their July 19, 1943 issue cover.



Women in Aviation International

International Organization for Women in Aviation Careers

By Chris Campbell

Women in Aviation International (WAI) is the largest nonprofit organization dedicated to the advancement of women in all aviation career fields and interests. A diverse membership includes astronauts, corporate, airline and private pilots, maintenance technicians, engineers, air traffic controllers, aviation business owners, educators, journalists, flight attendants, high school and university students, air show performers, airport managers, and many others.

RESOURCES FOR WOMEN IN AVIATION WAI strives to encourage, empower, and educate all those whose interests, lives, and work involve aviation and aerospace. Sharing a passion for aviation, WAI provides resources to assist women in aviation and to encourage young women to consider aviation as a career. WAI also offers educational outreach programs to educators, aviation industry members, and young people considering aviation careers. WAI is your best resource for networking and mentoring within the aviation industry.



FAA DATA Compiled in 2021, data provided by the FAA provides a comprehensive review of data available on the number of women in a variety of fields in aviation. The report illustrates that women remain significantly underrepresented in most fields in aviation.

FAA Certificate	Total	Women	% Women
Total Pilots	691,691	58,541	8.5%
Student	222,629	31,687	14.2%
Private	160,860	11,316	7.0%
Commercial	103,879	7,724	7.4%
Airline Transport	164,193	7,549	4.6%
Flight Instructor	117,558	8,592	7.3%

Data obtained from FAA (2021)

WIA PIONEER HALL OF FAME INDUCTEES The WAI Pioneer Hall of Fame was established in 1992 to honor women who have made significant contributions in aviation.

Wisconsin's **Audrey Poberezny**, was inducted into the WAI Hall of Fame in 1996. Audrey played an active role in the formation and operation of the Experimental Aircraft Association (EAA). She was known as the "First Lady of the EAA" and was instrumental in helping her husband Paul grow the EAA organization from a local flying club of amateur aircraft builders into an international organization that embraces the entire spectrum of sport aviation.



Audrey Poberezny
1925—2020



Emily Howell Warner
1940—2020

Emily Howell Warner, inducted into the WAI Hall of Fame in 1992 and a 2014 National Aviation Hall of Fame inductee was the first female pilot hired by a U.S. airline. In January 1973 she was hired by Frontier and began as a first officer and was promoted to captain in 1976, earning the distinction as the first woman to hold that position at any airline. Emily later became a captain for United Parcel Service flying a Boeing 727. In 1974, she became the first woman member of the Air Line Pilots Association (ALPA). In 1990, she retired from UPS to become a Federal Aviation Administration examiner. Her career would eventually log more than 21,000 flying hours.

NATIONAL WAI CONTACT

1864 Dayton Germantown Pike
Germantown, OH 45327-1100
www.wai.org

WAI SCHOLARSHIPS

WAI offers scholarships featuring a variety of career pursuits, including funding to further members' interests in aerospace engineering, aviation maintenance, flight training, helicopter ratings, dispatch, and professional development.

WAI Scholarship awards are a major benefit to help members reach their goals and advance into the aviation and aerospace careers they have always dreamed about.

WISCONSIN WAI CHAPTERS

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WAI, Igniting your passion in aviation



New At The Museum

Kelch Aviation Museum Newest Display

By: Hannah Shickles - Co-Curator Kelch Aviation Museum

It's 1938, and you just got yourself a private pilot certificate. Now all you need is a zippy little airplane to fly. As you're hunting for the perfect airplane, you stumble upon the Rearwin Aircraft company. You fall in love with the brand new Sportster 8500. Its slender fuselage and distinguished stripe running the length of the airplane make it look handsome.

This aircraft is a monoplane which means its cruising speed will be much faster than that of a biplane. But best of all, it was cheap! Only costing you \$2,761. What a steal for such a nice airplane. You have a little extra dough, so you decide to buy the deluxe version of the Sportster 8500 which will get you wheel pans, navigation lights, radio, and optional skylights. Why not splurge on your first airplane?

Just a couple of months ago, Jim Hammond of Yellow Springs,

Ohio, donated his 1938 Rearwin Sportster 8500 Deluxe to the Kelch Aviation Museum at the Brodhead Airport. We are very happy to add the Rearwin to the collection of one-of-a-kind vintage aircraft we have on display at the museum.

As the museum co-curator, I became very interested in our new donation. I wanted to educate myself further on the aircraft, so when I give tours of the museum or questions are asked, I am knowledgeable on the topic. I did some digging and found that this airplane has had quite a history.

The Rearwin Aircraft Co. was started in Salina, Kansas in 1928 by Rae Rearwin, a highly regarded businessman. Although he didn't know much about airplanes, just like everyone else during this time; he thought aviation was the business to get into because of the craze started by Charles Lindbergh's historic Atlantic crossing. As the company grew it was moved to the Fairfax Airport in Kansas City in early 1929. This was where the small business was transformed into a full-fledged manufacturing company.

What really shaped the Rearwin designs was the Great Depression. The company was able to stay in business, unlike a lot of other aviation businesses, by building a very inexpensive airplane like the Sportster. In addition, Rearwin offered deluxe versions of his airplanes. This model was outselling the standard version. The seaplane version was popular for export and was often shipped to Sweden, Norway, and Brazil. Overall this airplane was a hot seller.



Al Nagel and his 1938 Rearwin Sportster 8500 Delux Restoration

Continued on Pg. 24 - **Museum**

FORWARD in FLIGHT

the only magazine dedicated exclusively to
Wisconsin aviation history and today's aviation events

Chris Campbell, Editor

The Wisconsin Aviation Hall of Fame is a non-profit membership organization with a mission to collect and preserve the history of aviation in Wisconsin, recognize those who made that history, inform others of it, and promote aviation education for future generations.

FLY BACK IN TIME



EDUCATION - LIVING HISTORY - EVENTS
www.kelchmuseum.org
 N2463 Airport Road Brodhead, WI 53520 (608) 897-1175

WISCONSIN'S REA B-17

Wisconsin REA Help in the WWII War Effort

By Michael Goc

In World War II planes were named by their crew members, but that didn't stop War Department fundraisers from using airplanes as a means to encourage contributions to the treasury.

In the mid-1930s, farmers and country residents took advantage of Franklin Roosevelt's program to extend electrical service to rural areas not served by investor-owned utilities. The Rural Electrification Administration (REA) offered low-interest loans to cooperatives organized by rural people. Shortly after cooperatives were organized, electric lights went on and indoor plumbing was installed on farms throughout the state.

When the United States entered World War II, just about every item related to the distribution of electricity—copper and aluminum for wire, plus any hardware—was on the strategic materials list and severely restricted for civilian use. Progress at many rural cooperatives stopped dead on the dirt road. Nonetheless, the War Department asked rural cooperative members to make special contributions to the war effort. They told Wisconsin cooperatives that if the farm folks could come up with approximately \$300,000—in 1940s money—the Air Force would name a B-17 in their honor. The folks obliged and raised the money, but the only plane named in honor of the cooperatives is depicted here. It is a B-17 and "The Wisconsin REA" appears on the nose, but it never flew under that title nor was the name actually painted on the plane.

The Wisconsin REA B-17 existed only in the photo workshop, and we should be thankful that the combat air crews were more competent than the person who worked on this photo. Even in the pre-digital days a competent technician could have made it look like the name actually was painted on the airplane—not just stuck on with tape.

It was all for a worthy cause, of course. Thanks to the sacrifices of cooperative members, the aviation arsenal of the United States was increased by one aircraft. When the photo was pub-

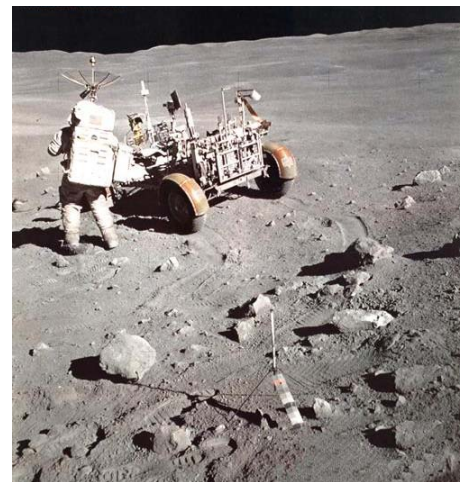
lished, readers could see where their money went and even if the Wisconsin REA B-17 was not real, cooperative members knew their contributions went to the war effort.



50 Years Ago

From electrification in the barn to a rover on the moon!

Apollo 16, the next-to-last in NASA's Apollo program and second of three science-focused missions, lifted off from Cape Canaveral on April 16, 1972. On April 20, a lunar module carrying astronauts John W. Young and Charles M. Duke, Jr. touched down on the edge of the Descartes Mountains three hours late after an initial wave off (the program's first). The two astronauts spent 71 hours, 2 minutes on the lunar surface, traversing 26.7 kilometers (16.6 miles) in a Lunar Roving Vehicle. It took several weeks, however, before photos from the were publicly available. Back in the spotlight nine years later, Young was the commander of the first space shuttle mission.



Astronaut Duke by the parked rover



Photo courtesy of the Wisconsin Energy Cooperative News, published by the Wisconsin Federation of Cooperatives, Madison, WI

WW II SURPLUS AIRCRAFT

What To Do: Store, Sell or Scrap?

Complied By Chris Campbell

At the END OF WORLD WAR II, the largest class of surplus property, both in numbers and dollar value was military aircraft and spare parts. By 1948 over 37,000 aircraft were determined as salable (sold for the purpose of flight) while another 27,000, mostly tactical aircraft, classified as unsalable for non-flight use, or scrapping.

The War Assets Administration (WAA) was charged with disposal in early 1946 and by 1948 the disposal of surplus aircraft was largely completed.

In 1941 As the U.S. began to shift into a wartime footing, surplus government property accumulated just by the termination of peacetime programs. While the war effort absorbed some of the surplus, it was largely left to government agencies for disposal of excess material. Wartime production and adjustments of production, particularly as new designs replaced obsolete products, dramatically increased the amount of unusable material with unneeded spare parts, incomplete products, and tooling.



*Aerial view of surplus U.S. Military Aircraft at Walnut Ridge, Arkansas, in Nov, 1945
(Walnut Ridge Army Flying School Museum Photo)*

SURPLUS ADMINISTRATION TRANSFER - President Roosevelt signed an Executive Order in February 1944 which established the Surplus War Property Administration (SWPA) under the Office of War Mobilization. The SWPA was a short-term planning body while awaiting Congressional legislation which would firmly establish a federal disposal agency. Efforts of the SWPA concentrated on the formulation of policy which established federal agencies for particular classes of surplus property. In April 1944, the SWPA designated disposal agencies and surplus disposal procedures. The Reconstruction Finance Corporation (RFC) was designated as the agency for surplus aircraft disposal.

"The Surplus Property Act of 1944 "essentially established a three-member Surplus Property Board (SPB) which took over the jurisdiction of the SWPA. The SPB formulated general policy and controls for disposal, agencies within the federal establishment." These disposal agencies formed their own policies for the disposal of their assigned property. In January 1945, the SPB established an Advisory Board with several concerned governmental agencies, including members of the Civil Aeronautics Board (CAB), the Navy and War Departments, and the RFC . The Board began implementing regulations, many of which duplicated or superseded earlier SWPA regulations.

The RFC had established a network of domestic offices to administer the program. The SPB transitioned into the Surplus Property Administration (SPA) by legislation passed in September 1945. While the organizational body of the new Administration was widened in scope, the policy remained the same, overall disposal policy of the federal government. The WAC was reestablished as the War Assets Administration (WAA) as a separate agency from the RFC and under the jurisdiction of the Office for Emergency Management in March 1946. Thus, the RFC and its disposal programs and the SPA policy-making jurisdiction was transferred to the newly established WAA,

FINALLY, ONE GOVT AGENCY!

After March 1946, aircraft sales were handled by the WAA which used various offices such as the Office of Aircraft Disposal, within which the Surplus War Aircraft Division operated.

Also involved with WAA sales was the Office of General Disposal and later, the Office of Aircraft and Electronics Disposal.

Aircraft Disposal: Development of policy during 1944-1945 for disposal of surplus aircraft was developed from two studies and reports which were contracted by the Army Air Forces with the Harvard University School of Business Administration. This report was completed in May 1944. In early 1944 the SWPA set up an interdepartmental committee headed by Chairman of the Civil Aeronautics Board (CAB) and his resulting report that

HISTORY HANGAR

became known as the Pogue Committee Report.

LESSONS LEARNED - Effects Of WWI Surplus

The portions of the Harvard group were integrated into the Pogue Committee. Both groups looked at previous aircraft disposal policy, particularly those experienced at the end of World War I. Of major concern, the lack of aviation development which occurred through the 1920s was a direct result of the ample supply of World War I surplus equipment, particularly in the area of aircraft engines. The reports noted that over 20,000 new Liberty engines were on hand at the end of World War I. Low military budgets and the supply of surplus engines forced aircraft designers to build new airframes around the old engine, thus choking off new engine development. Additionally, of the 12,500 surplus World War I aircraft, half were sold to the public. The remainder remained in the military inventories. This was detrimental to both civil and military aviation development and imposed a severe liability to the aircraft manufacturers in trying to find a market for new products. It was thus perceived that the sale of surplus planes and engines at extremely low prices was a threat to the aircraft industry, and that retaining a large inventory of surplus aircraft would make it difficult to obtain authorization to purchase new equipment.

The report also noted that the: "maintenance of American air power depends not only on the establishment of a nucleus of facilities and skills for military production but also on the promotion of civilian aviation..." The development of civilian aviation is also required for assuring high levels of postwar employment which will depend on the expansion of prewar markets and the creation of new markets for private industry. The study also concentrated on logistical and budgetary limitations of dealing with the vast numbers of aircraft expected to be surplus at the conclusion of the war.

CLASSIFICATION OF SURPLUS AIRCRAFT - The Harvard Report divided the surplus equipment into five classes:

Class A: Tactical aircraft, including heavy trainers. Useful for military purposes only.

Class B: Transport aircraft. Primarily used for scheduled transport service.

Class C: Personal aircraft, including primary trainers. Adaptable to personal flying, fixed base operations, training, and miscellaneous uses.

Class D: Aircraft equipment and components. Of general use for military and commercial purposes.

Class E: Unabsorbed surplus. All planes and components not useful for flight purposes.

This classification system was carried forth and used through the entire disposal program. In July 1944, a study of the most efficient and cost-effective way of disposing of surplus aircraft

was authorized by the Army Air Force. A B-24 was sent Patterson Field, Dayton, OH for a crew of mechanics to break the bomber down into its smallest component parts. Time records were kept of man hours of the disassembly. The parts were spread across the hangar floor and representatives of various industries were brought in to examine the materials to determine if any use could be found for any of the parts. The overall conclusion was that, while some parts were usable, it was cheaper and safer for manufacturers to purchase new items for their products. Little beyond scrap value could be found for the remains of the B-24. It was found that 782.51 man hours were used to disassemble the bomber at a total labor cost of \$3,200. The resulting 32,759 pounds of material was worth \$2,400 in components and scrap. Thus, it was determined that the most cost-effective method of disposal was recovering the aluminum and other metallic content for other uses.

THE PROBLEM OF TACTICAL AIRCRAFT - The disposal of the tactical Class A aircraft was considered to be a major problem through most of the studies it was presumed that these aircraft were fundamentally unsalable. In a special report to Congress



*Convair B-32 Dominator bombers stored at Walnut Ridge, Arkansas
Of the 118 B-32s that were built, 67 of the Dominators were sent to Walnut Ridge
(Walnut Ridge Army Flying School Museum Photo)*

on 23 November 1945 entitled "Aircraft and Aircraft Parts" the SPA examined the disposal process for all classes of aircraft. For tactical aircraft it identified some limited uses in the civil fleet but anticipated a huge unabsorbed surplus.

The report projected that 89,200 tactical aircraft would be surplus by June 1946 however the actual total number of surplus Class A aircraft was closer to 27,000.

EDUCATIONAL USES - In May 1945 the SBP initiated a program qualifying educational institutions to obtain Non-Flight commercially worthless aircraft that could be transferred to eligible educational institutions for technical programs. Receiving

schools had to pay transportation fees and a nominal disposal cost to obtain the aircraft. Pricing policy provided a B-17 for \$350 and a new Pratt & Whitney R-4360 engine was offered for \$10. Receiving institutions had to sign a statement that the aircraft was for non-flight purposes and had to be rendered nonairworthy or dismantled prior to disposing of the aircraft. Use aircraft for a nominal fee. The program was successful. Subsequent amendments included experimental and memorial use resulting in several hundred surplus aircraft had been released to educational institutions. There was also an increasing number of tactical aircraft being transferred to communities for war memorials, and further use in experimental programs was to be encouraged. However, after all of these uses were considered it was obvious that there was going to be a large amount of unabsorbed surplus, thus, the eventual scrapping and smelting became the announced policy of the SPA.

PROCESS OF DISPOSAL 1943-1945 - Beginning in late 1944 domestic aircraft declared excess to military needs were turned over to the RFC for disposal and plans were initiated to establish domestic storage and sales centers and by August 1945, 30 sales-storage depots and 34 sales centers were in operation. One such center was at the Racine Flying Service, Horlick-Racine Airport. Each sales-storage depot was primarily placed on surplus military fields. After August 1945 it was decided to close all sales centers and concentrate salable surplus aircraft at five storage-sales depots. The military greatly increased their surplus declarations beginning in October 1945 and some sales centers apparently were not closed.

The majority of the sales centers were organized for the disposal of Class C aircraft, composed of liaison, trainers, and utility cargo types and were considered by the RFC as the most salable category. Established prices ranged from \$450 for a BT-13



to \$8,250 for a B-25 to \$32,500 for a B-32. AT-6s were available for \$1,500, while a P-38 was offered at \$1,250 and a P-51 at \$3,500. The storage lots were authorized to issue ferry permits to the owner's home base, after which the aircraft was grounded pending CAA certification. Aircraft did not receive a CAA civil registration number until the new owner complied with required modifications and inspections. Class B aircraft, or the medium and heavy transport aircraft were handled differently.

Beginning in July 1944, demands for transport types such as the C-47 and C-54 were placed into an allocation program. Purchase prices included conversion allowances for CAA certification and were set based upon the earning power of each type. The SPB estimated, in November 1945, that 10,500 transport planes of all types would eventually be declared surplus. By mid-1947, 1,750 medium and heavy transports (C-46, C-47, and C-54s) had been sold to both domestic and foreign airlines. In March 1947, 90 percent of the 256 DC-4s operating in the U.S. Airline fleet had been converted from surplus C-54s.

SCRAPPING - Class A Tactical aircraft scrapping was largely concentrated onto six storage depots located at Walnut Ridge, AK; Kingman, AZ; Ontario, CA; Clinton, OK; Altus, OK; and Albuquerque, NM. General sales of these aircraft was permitted up to late spring 1946 when the decision was made to offer five of the fields for sale as scrap for disposal. Within four months each of the fields (with the exception of Altus, OK, which was sold later) had been turned over to private contractors who organized the smelter operations. The original bid process required that the smelting operation be completed within 14 months of the bid award, and most firms had completed the job by the end of 1947. Though the majority of the surplus tactical aircraft were dispatched to the six designated fields. Searcy Field near Stillwater, OK was the prewar airport for Stillwater brought in 478 tactical aircraft which consisted of B-17s, PB4Y-1s, B-24s, B-25s, B-26s, P-40s, P-47s, and P-51s. In February 1946, the first field-size sale, the aircraft were sold to movie pilot Paul Mantz for \$55,425.00 who intended to take a number of aircraft for use in postwar film work. Mantz selected 10 aircraft including two P-51Cs, a B-17F, and a B-25H from the group and brought them to his Southern California base. Mantz later stated that the sale of the gasoline in the tanks of the stored aircraft more than made up his initial investment, and that some parts on the aircraft were sold back to the government at a substantial profit. Mantz used the two Mustangs in the postwar Bendix air races, and the B-25 became the aerial camera ship which was widely used through 1970.

KINGMAN ARMY AIRFIELD - Kingman became the best known of the tactical aircraft Depots with Over 5,400 aircraft, primarily B-17s and B-24s (4,463 total) and fighters (615 total), were brought into Kingman beginning in October 1945. Efforts were made to place low time types of aircraft directly into long-term storage. Some of the B-32s were prepared for storage however, most of the aircraft were simply taxied from the runways directly onto the desert into neat rows. It's estimated the storage covered five square miles and stretching for six and one half miles along U.S. Highway 66, with more than 7,000 retired bombers, fighters and training planes parked row on row. During December one every minute landed at the Depot. Some of the big four-engined planes arrived from overseas bases. A few, however, come almost directly off production lines, brand spanking new....

Of the fighters and bombers to arrive at Kingman, only a few

HISTORY HANGER

made it back out under their own power. The only reports of any aircraft leaving Kingman for use in the civil fleet include 100 P-38s and various numbers of other fighters which had all been sold by June 1946. In the spring of 1946 an invitation of bid the WAA offering the five fields containing the tactical aircraft in a sealed bid offer went out to and trade papers. The letter stated: "The War Assets Administration will dispose of over 20,000 combat type aircraft as scrap and salvage. These planes are observation, reconnaissance, fighters, and bombers which are ineligible for certification by CAA and cannot be used for flight purposes.....the sealed bid must contain an offering for the total non flyable aircraft. Offerings for a portion of the non flyable aircraft on any field will not be considered...." This was an "All or nothing requirement of the sale.

The field listing and inventory offered is shown in Table 1. The bid announcement specified that the Ontario and Albuquerque fields had to be cleared within nine months, while Clinton and Walnut Ridge were given 12 months and Kingman 14 months to complete the job. The bids were awarded in July 1946 to the following contractors: Albuquerque, NM: Compressed Steel Corporation Clinton, OK: Sherman Machine and Iron Company Kingman, AZ: Martin Wunderlich Ontario, CA: Sharp and Fellows Construction Company Walnut Ridge, AK: Texas Railway Equipment Corporation The fields were turned over to the new contractors in the fall of 1946. Wunderlich Contracting Company, purchased the airplanes at Kingman for \$2,780,000 and took over the field in September 1946.

CONGRESSIONAL INQUIRIES - A Congressional subcommittee held hearings in June 1947 regarding certain perceived improprieties of the administration of the sales.

Testimony revealed that Texas Railway Equipment Corporation had signed a series of contracts with the U.S. Army in the amount of \$3,500,000 for the Army to buy back various salvaged aircraft parts for their postwar needs. Among these were Curtiss-Wright electric propellers off Consolidated B-32s at Kingman which were to be used on Boeing B-29s. Other parts included those for B-17s and B-25s which were no longer available from manufacturers.

Texas Railway subcontracted with the other four field owners to provide parts which were not available on the aircraft located at Walnut Ridge. Another question was raised about why the gasoline in the tanks of the stored aircraft was sold as part of the award. It was calculated that the aircraft parked at Kingman held nearly 3,000,000 gallons of high-octane fuel.

Wunderlich was later able to sell the fuel for 6.5 cents per gallon to refiners. Also drawing the attention of the inquiry were details about the actual numbers of aircraft involved in the

sale. The bid offering and bill of sale between the WAA and Wunderlich had specified that 5,443 aircraft were sold. A later inventory determined that there were actually 5,483 aircraft on the field and that Wunderlich had taken possession of the extra 40 aircraft for scrapping. At the other four fields the same situation had occurred and the contractors had paid an additional amount for the extra aircraft. The last major irregularity of the transaction was that the WAA granted to Wunderlich a large amount of equipment ranging from trucks and cranes to carry on the salvage operation. Most of the equipment used, except for the three smelting ovens, were all government furnished. Even guard and fire protection were government paid, which was at odds with the original bid announcement and resulted in a much larger profit to Wunderlich.

SCRAPPING OPERATIONS UNDER WAY - By February 1947 at Kingman, the engines and machine guns had already been stripped from the aircraft. Crews first drained all fuel and oil for later resale, and 0.50-calibre machine gun shells were removed. Loose shells had earlier exploded during the smelting process and damaged the furnaces. Each aircraft was chopped into smaller pieces which would then be fed into the smelters. The extracted aluminum was casted into 1, 500-pound ingots and sold to aluminum companies for reprocessing. Wunderlich had three crews working around the clock, seven days a week, working their way through the lines of aircraft.



*B-29 Superfortress "Enola Gay" in storage at Pyote post WWII
(Rattlesnake Bomber Base Museum archives)*

ALTUS, OK - The last large sale of surplus tactical aircraft was at the Altus depot. By August 1946 over 2,400 aircraft were stored at Altus, and in November 1946 the majority were sold to the Texas Railway Equipment Corporation for scrapping. In a later sealed bid sale, the remaining aircraft were sold in several lots, and purchasers included the Esperado Mining Company of Altus, OK (evidently a thinly disguised subsidiary of the Texas Equipment Railway Corporation) which purchased 423 bomb-

ers and fighters. Most of the hundreds of B-17Gs stored at Al-tus were brand-new aircraft, and the source for most of the B-17s which went into the civil fleet after the war. Esperado Min-ing sold two of the new B-17s to Pratt & Whitney for use in their engine test program. With this last sale, the WAA was pretty much out of the business of World War II aircraft dispos-al. Aircraft components continued to be processed for sale, but for the most part the aircraft disposal process was completed. Through September 1946 the WAA and its prior agency, the RFC, had received over 64,000 surplus aircraft from the U.S. military. Of these, over 37,000 were considered to be salable types, while the remainder, nearly 27,000, were the tactical aircraft.

At least 35,000 of the salable types, primarily liaison, utility cargo, basic trainers, and light-cargo aircraft, were sold be-tween 1945 and 1948. By June 1947 over 40 percent of the U.S. civil aircraft fleet were surplus aircraft. In the same period near-ly 31,000 aircraft, primarily tactical, were sold for scrap. Incom-plete records indicate that around 250 tactical aircraft were actually sold as aircraft for flyable purposes.

FEDERAL OWNERSHIP OF EDUCATIONAL AIRCRAFT - Incom-plete records also indicate an additional 1, 500 tactical aircraft were disposed of for educational or memorial use. In later post-

war years many of these aircraft were "sold" by the original receiving educational institutions or municipalities. These own-ers quickly learned all about SPB Regulations regarding res-trictions to sale as they could not obtain the legal title which remained with the government. Financial settlements were required by the new owners with the General Services Admin-istration which were often many, many times their original pur-chase price for the aircraft.

RESOURCES & SOURCES - Additional Reading
 Postwar Aircraft Disposal by Scott A. Thompson
 American Daily Newsletter - 1943-1948, Numerous issues

Walnut Ridge Army Air Field
<https://www.walnutridgearmyairfield.com/>

Kingman Army Air Field Aircraft Boneyard
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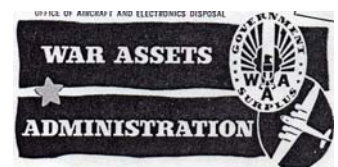
A DISPOSAL AGENCY DESIGNATED BY THE SURPLUS PROPERTY BOARD

JULY 15, 1945 AERO DIGEST 16-2
205

Advertisement - Aero Digest Magazine July 15, 1945

TABLE - 1
16 MAY 1946 INVENTORY OFFERED FOR SALE BY SEALED BID

	Albuquerque, NM	Clinton, OK	Kingman, AZ	Ontario, CA	Walnut Ridge, AR	Total
Observation	—	264	—	6	—	270
Reconnaissance	4	—	85	26	—	115
Fighters	929	3,852	615	627	1,165	7,188
Light Bombers	16	2,585	54	206	48	2,909
Medium Bombers	35	666	226	165	809	1,901
Heavy Bombers	567	180	4,463	336	2,774	8,320
Total	1, 551	7,547	5,443	1,340	4,822	20,703



Women in Early Wisconsin Aviation What We Know and What We Don't

By Michael Goc

The first woman we know of to fly an airplane in Wisconsin was Blanche Stuart Scott. She was an emancipated woman, as they used to say back then. She wanted to do things that others told her only men could do, and she did them.

She was born and raised in Rochester, New York, of supportive parents who let her drive their new automobile around town. She made a connection with the Willys-Overland auto company, whose marketing people thought that putting a woman behind the wheel of a Willys would sell their cars. In the spring of 1910, the company commissioned the 25-year-old Scott, accompanied by a female news reporter, to drive an Overland from New York City to San Francisco. They succeeded and Scott became the first woman to drive a car from the east to the west coast. She also garnered a carload of publicity for Willys-Overland and for herself.

The airplane was next. A few weeks after seeing the USA in her Willys-O, Scott went to Hammond-sport, New York, to take flying lessons from none other than Glenn Curtiss. He refused to train her but Scott was persistent. Curtiss agreed to let her into the seat of a Model D and explained how to work the controls. He also installed a governor on the throttle to prevent the motor from revving up to air speed. Scott could “mow” all the grass she wanted but she couldn't take flight.

This is a familiar flight training story, with a familiar outcome. Of course, the governor failed or was sabotaged and, of course, Blanche Scott was airborne. She made what is generally accepted to be the first flight by a female American pilot in September, 1910. Some insist however that a Beloit, WI woman, Bessica Raiche, had already flown an airplane that she and her husband Francois had built. Be that as it may, Raiche quit after her flight while Scott became America's first professional female aviator.

Bessie is celebrated as the name sake for Bessie's Dinner at the Southern WI Regional Airport in Janesville



Scott went on the road as a Curtiss exhibition pilot and flew at fairs and air shows throughout the country in 1910, 1911, and 1912. She set records for women in long distance flying, performed loops and “Death Drop” dives, and signed on as test pilot for the fledgling airplane designer, Glenn Martin.

In 1913, she appeared at a Memorial Day air show at the Dane Co. Fairgrounds in Madison. Her improved Model D was dubbed the “Red Devil,” and she was billed as “The Tomboy of the Air.” She would take off and land on the fairgrounds race track and perform for the customers in front of the grandstand.



Blanche Scott, “The Flying Tomboy” at the controls of her Curtiss Model D

Be they Devil or Tomboy, all airplanes and pilots need good mechanics. Scott could have used one in Madison. Her pusher motor coughed and sputtered as she took off on the grandstand side of the track, made her way down the straightaway and into the air. It didn't run any better as she rounded the curve into the backstretch. Rather than crash, Scott tried to land on the smooth track, but was forced into the rough grass beyond. The Devil hit a pothole or a bump and started to flip. The wood, wire, and canvas airplane offered no protection while the motor mounted directly behind her seat was a dire threat. Scott jumped off and got away before the Curtiss up-ended.

The grandstand emptied as the spectators raced across the infield to the crash site. They found Scott bruised but on her feet. “I'm all right,” she said.

Except for a broken arm, either she nor the Devil flew again that day. Scott stayed in aviation until 1916 when, like many male pilots, she grew tired of putting on a show for spectators not interested in her skill as a pilot, but instead titillated by the prospect of seeing her crash. American male pilots would soon be able to leave the air show circuit and serve their country in World War I. Women like Blanche Scott could not.

She worked as a writer for radio and movies and as an aviation history curator for the Smithsonian. In 1948, on the anniversary of her 1910 flight, Scott became the first woman to fly in a T-33 Shooting Star jet airplane piloted by Chuck Yeager.

While we know that Blanche Scott was the first woman to—more or less—fly an airplane in Wisconsin, we don't know who was the first Wisconsin woman to fly an airplane. A Madison

woman with an eye for aviation's promotional possibilities purchased a JN and hired a pilot in 1919. Susie Mae Potter, whose husband distributed Valvoline motor oil, flew in the front cockpit of her JN many times, but we don't know if she ever took control of the plane. She told the press that "Sure I'm going to fly," but that is not enough. She can be credited as the first female in Wisconsin to own an airplane - probably jointly with her husband - and she certainly was the state's first female air show impresario. She booked her plane for exhibitions throughout southern Wisconsin in 1919 and flew to them as a passenger yet we no evidence that she was ever a pilot.



Ruth Harmon Walraven and the "Masculiner" Cub that she flew on promotional trips for Cooper's Jockey brand men's underwear.

Airplanes and airports spread through the state in the 1920s, but aviation seemed to be an all guy occupation. In all the records we have of WAHF inductees of the early 1920s - Roy Larson, Rellis Conant, Gilles Meisenheimer, Anton Brotz, and others - women appear only as passengers and spectators.

In 1926, Congress passed the Air Commerce Act to provide uniform regulation for the aviation industry across the United States. It established the certificate system to set standards for aircraft construction and mandated that pilots be trained, tested by federal examiners, and licensed.

We haven't been able to find an official list of the first federally licensed pilots from Wisconsin. We do have bits and pieces of information dating from 1927-'28, when the first licenses were issued, and not much else.

For example we have a couple of interesting news clips from Oshkosh and La Crosse. One states that Lola Lutz, wife of Oshkosh airport founder and 2010 WAHF inductee Richard Lutz, was the first woman in Wisconsin to become a licensed pilot. The other says that Ellen Salzer, sister of La Crosse airport patron and 2012 WAHF inductee John Salzer, was one of three licensed female pilots in Wisconsin. One of the others was in Oshkosh, the other in Milwaukee. Lola Lutz was probably the Oshkosh pilot but we don't know who the Milwaukee woman was. Tucked away in some document archive somewhere or floating in the ethereal internet

cloud, is that pilot's list or something like it. We just have to find it. In the meantime, we can talk about a woman we know very well.

Ruth Harman was 18 years old in 1931, when she saw a bunch of guys flying a glider at the old Kenosha airport on the edge of town. She asked if she could give it a try. The guys said yes and off she went, launched into the air and onto the course she would follow for the rest of her life. Inside a year she had soloed in a powered aircraft and earned her private license. In 1936 she garnered "transport" and instructor ratings.

To pay for her flight training, Harman worked at Cooper's, a Kenosha clothing manufacturer specializing in socks. The economic depression had just about put Cooper's out of business when, in 1934, one bright person on the staff saw a picture of a new style of men's swimwear popular in France. Cooper's copied the pattern and introduced the new garments as men's underwear. At their initial roll out in January 1935, at Marshall Field's store in Chicago, Cooper's "Jockey" shorts sold out fast. The Kenosha company was reborn and thrives today.

What does this have to do with Ruth Harman? She was a pilot in Kenosha, neighbor of Racine, the hometown of S.C. Johnson, the floor wax manufacturer. Johnson had been using WACO airplane - first piloted by 2007 WAHF inductee Ed Hedeon - to promote its products since 1931. The "Johnson Waxwing" WACO Cabin plane carried floor polishers, wax, and an attractive female dubbed "Johnson's Wax Doll" to marketing events around the country.

With the Johnson model nearby, it was not a giant mental leap for Cooper's to use an airplane to inflate sales of Jockeys. It did take a bit of imagination, intentional or not, to hire Ruth Harman to pilot the Jockey airplane. Flying a Piper Cub punningly christened "The Masculiner", and accompanied by a female sales agent, Harman made special deliveries of Jockeys.

Back in Kenosha, she established a successful aviation operation. "We must recognize that flying is no longer a romantic adventure, it is a business," was how she voiced her approach.

In 1940, she was hired as manager of the privately-owned

Anderson/Kenosha airport, the first woman to run an airport in Wisconsin. She also developed and conducted Kenosha's Civilian Pilot Training program and trained pilots for the U.S. Navy in World War II.

She married fellow pilot Herb Walraven in 1943 and continued to manage at Anderson until shortly after he died in 1950. She started all over again in California, continued as a pilot and aviation business operator. Our Ruth Harman Walraven was also the first woman pilot inducted into the Wisconsin Aviation Hall of Fame in 1999.



Ruth Harman Walraven
1919-1993

WASP Militarization for Veterans' Status

1977 Congressional Legislative Action

Compiled By Chris Campbell

U.S. Senate committee conducted public hearings on Senate Bill S247 aimed at granting veterans benefits to recognize the service of WASPs during World War II by deeming their service military active duty for purposes of laws administered by the U.S. Department of Veterans Affairs (USDVA). Senate bill S247 was introduced by Sen. Barry Goldwater (AZ) principally for medical care, compensation, pension, and burial benefits. These hearings were to try and determine if there was actual military active duty performed in the Armed Forces, not for compensating for a military commitment to this group of individuals who many felt were only civilians working and performing duties within the military community, in other words, WASP pilots and their instructors were civilian contracted individuals by the military.

The following is some of the most interesting portions from congressional transcripts of these hearings.

WASHINGTON, DC - May 25, 1977

OPENING STATEMENT OF BY ALAN CRANSTON, CHAIRMAN OF THE COMMITTEE ON VETERANS' AFFAIRS (Pg. 31)

In 1942, when the need for trained pilots was becoming acute, the Women's Air Forces Service Pilots were organized under the aegis of the U.S. Army Air Force(AAF). Women were accepted for this program only after they had mastered the rudiments of flying. After rigorous training, the WASPs ferried planes and performed other flying duties for the AAF within the continental United States. In 1944, the War Department requested Congress to enact legislation that would have made the WASPs a formal part of the AAF. This legislation was not enacted, and in December 1944, the WASP program was terminated.

STATEMENTS BY HON. BARRY GOLDWATER, U.S. SENATOR (Pgs. 32-39)

I. ORIGINS OF THE WASPs

Serious efforts to establish the World War II women's pilot program began at the direction of President Roosevelt himself. On July 3, 1941, Miss Jacqueline Cochran, winner of several aviation awards, lunched with President and Mrs. Roosevelt, and it was then suggested that she go over to the AAF and determined if women pilots could be usefully employed in the United States. A few days later, by direction of the President, Miss Cochran met with Gen. "Hap" Arnold, Chief of the Air Corps; Col. Robert Olds, who was then head of the Ferrying Command; and Mr. Robert Lovett, the Assistant Secretary of War for Air.

The purpose of the meeting, as it is recorded, was to consider "the possibilities of utilizing women pilots to ferry primary, basic, and advanced trainers from factories to Air Corps stations, thus releasing combat pilots for more important duty. Mrs. Eleanor Roosevelt openly promoted the use of women pilots by the military in several of her national newspaper columns. On September 3, 1942, General Arnold issued formal orders directing that the details be worked out for using women pilots to the maximum on the ferrying of military aircraft.

The plan evolved in two separate steps:

First: Recruiting was started almost immediately of experienced women pilots to serve with the Air Transport Command. This was the women's auxiliary ferrying squadron-WAFS.

Second: A training program was established for women pilots with less flight experience than the women who joined the WAFs. This program was known as the women's flying training detachment. These girls entered training at Houston, TX, on Nov 16, 1942. Early in 1943, the two programs were merged into one, and this is when the organization took on the name of WASP, Women's Air Force Service Pilots.

II. OBJECTIVES OF THE WASPs

General Arnold summed up the objectives of the WASP in a memorandum dated November 3, 1942, informing the Flying Training Command as follows

On March 22, 1944, Gen. Arnold testified before the House committee on military affairs in support of legislation providing for the appointment of women pilots as officers in the Air Corps. "Right at this moment," he said, "the Army is short over 200,000 men." He added: "we must provide fighting men wherever we can, replacing them with women wherever we can" and so we "can release men and make available the younger men to actually do the fighting". To illustrate how serious the problem was, Gen. Arnold told the committee that, on account of the manpower shortage, the Air Corps had returned to the ground and service forces 36,000 highly qualified men were needed to go into fighting units immediately.

III. WHAT DID THE WASPs DO

To satisfy the need, 1102 WASP were assigned to operational duties this included 1074 WASP who graduated from training and an additional 28 WAFS who entered upon operational duties without taking the training course. These woman performed every kind of flying operation possible and flew 77 types of airplanes from the factories to the modification centers, depots, and to other destinations within the United States and Canada. They did tracking and searchlight missions, simulated strafing, smoke laying, radio control flying, basic and instrument instruction, and engineering test flying.

The WASPs flew, subsequent to graduation from training, 60 million miles for the AAF, or about 2,500 times around the earth at the equator. This service included 30,000 hours in the multi engine B 26 and B-29 super fortress.

IV. HOW WELL DID THE WASPs DO?

According to the overwhelming opinion of station commanders, WASPs were as efficient and effective as male pilots in most types of duties and were much better than men in some instances, such as towing targets for gunnery practice. According to official Air Force medical studies, the woman pilots had equally as much endurance and stamina as male pilots did. In fact, the cases of flying fatigue were so outstandingly low and so far below the rate among men pilots that many men refused to believe it. WASPs flew as much as 70 hours per month with no complaints except they wanted to fly more. In Jul 1943 the air training command showed the average number of ferrying hours for each woman was 52

compared to male pilots who were averaging only 35 hours a month for the same time. Of 1,830 women who were accepted for pilot training, two thirds passed the program. The elimination rate for women was lower than among male cadet pilots. Of all airplane accidents during the life of the WASP program, 9% of the total were fatal. Among male flyers during the same period, 11% of all domestic accidents were fatal.

V. WERE THE WASPs SUBJECTED TO DISCRIMINATION?

It is a fact that these girls did bear extra. burdens simply because they were women. The very reason they were not militarized was their sex. The law allowed the Air Corps to commission men as flight officers, but not women. On Jan 11, 1944, the Deputy Chief of Air Staff asked the Assistant Chief for Personnel to look into the legality of commissioning women pilots directly into the Army on the basis of their qualifications as service pilots. On Jan 13, 1944, the official reply was given. It was negative. A decision of the Comptroller General stated that the authority extended only to men and could "not be regarded as authority for commissioning women as officers in the Army of the United States."

Now, if you ask me why these ladies are entitled to veterans' benefits, while some other civilian groups are not, there is one reason: Women could not be commissioned as pilots because they were women. It is unfair for their country to continue to

punish these women by blocking veterans' benefits for them when the only reason they were not taken into the service at the time was their sex. This is not the only instance of sex discrimination against the WASPs. In Oct of 1943, an investigation was made by the air inspector of complaints that discrimination was occurring against the WASPs at various ferrying bases in an attempt to discredit the women pilot training program. The air inspector's report dated Nov 22, 1943 concluded that women pilots at the 2nd and 5th Ferrying Groups were being discriminated against. His report found that the attitude and

method used by male pilots in the conduct of flight checks were "obstructive and unfair." The inspector determined that some check pilots were resentful of the women's pilot program and tended to favor the elimination of the WASPs.

VI. DID THE WASPs EXPECT TO BE MILITARIZED

One of the distinctive features of the WASP which separates them from all other civilian groups who served with, but not in, the Armed Forces during World War II, is the fact that they

were scheduled for militarization from the start. The official Army forces historical study of the WASPs, entitled "Woman Pilots with that AAF, 1941 – 1944" stated "that AAF early recognize the advantages of specific legislative authority for the WASP program and sought for many months to obtain congressional approval of military status for woman pilots". The same study reports: "From the first stages of the program, the AAF has been planning for the day when WASPs could discard your civilian status and emerge as full-fledged members of the Army of the United States."

Official records show that soon after the woman pilot program was activated, the plans for militarization were underway. On Dec 3, 1942 only three months after recruitment of WASP began, the Chief of Air Staff instructed the director of individual training to prepare a plan for training woman pilots under which they would be brought into the military service. Air Corps files also disclose that in early 1943, General Arnold sent a draft memo requesting that legislation be initiated to militarize woman pilots and to incorporate them into the Army Air Forces.

On Sept 30, 1943, Representative John Costello introduced the first of the WASP militarization bills. On Feb 16, 1944, Sec. of War Henry Stimson sent a letter to the House Committee on Military Affairs recommending enactment of the bill. Unfortu-



Boeing Stearman Kaydet - Primary Trainer Aircraft Flown by WASP Pilots - Cont. Pg. 23

WORLD WAR II

nately, that bill was defeated because of reasons which will have left an impression of sex discrimination. The fact that the war department publicly supported passage of the bill in early 1944, just 17 months after the woman pilots program began, as additional evidence that women expected to be taken into the military.

Another indication that women expected to become officers is that their training, from the start, included military instruction. This covered courses in military courtesy and customs, articles of war, the safeguarding of military information, drill and ceremonies, military organization, military correspondence, and chemical warfare.

A directive from Army Air Force Corps Headquarters dated Mar 6, 1944, the military training was extended from 66 to 137 hours. In fact, a special course wasn't instituted at the AAF school of Applied Tactics in Orlando, FL, in the spring of 1944 designed to give training to WASPs as prospective officers. During a period of about 5-1/2 months, 460 WASPs were trained at this school so that they could take care of the duties as officers. Did they know they were being destined to be militarized? Everyone who went through this training had to know it!

VII. WOULD THE WASP BILL SET A PRECEDENT?

With the above background, we now reach the question, why should the WASP receive veterans' benefits and no other civilian groups who served during wartime? The answer is simple. The WASPs were trained and treated as military officers. The other groups were not. The WASPs were scheduled for militarization from the start. Other civilian groups were not. WASPs had to meet the physical standards set by Army regulations (form 64). In general, WASP trainees received about the same training as did the flying cadets. All flying cadets, male or female, after graduation went to transition training in the type of aircraft they were flying. The only difference was that the males went to transition training schools while the WASPs were expected to make the transition in the airplane when first required to fly it. Ferrying division directives issued in Apr of 1943 specifically provided that women pilots were to be given transition to multiengine planes and high-powered single engine craft, "under the same standards of individual experience and ability as apply to any other pilot."

All check rides were given by AAF officers, using the same service pilot standards that applied to men. This fact alone distinguishes them from male contract pilots and other civilian groups. Women pilot trainees received about the same compensation as male flying cadets, except for not receiving insurance benefits. Trainees were required to live in barracks on the training base. They were required to follow as closely as possible the schedules established. The WASPs were treated for illness by AAF flight as surgeons.

WASPs were entitled the same military medical care as cadets and military pilots were. After graduation, uniforms were pro-

vided the WASPs as in the case of all other flying personnel. They were expressly required by AAF regulation 40-9 to wear this uniform. After assignment to operational duties, women pilots received slightly less than the pay of a second lieutenant on flying status.

Additionally, WASPs had no quarters and meals allowances. Nor did they enjoy the right to advancement in pay depending upon their length of service. These pay conditions, scaled to be comparable with a flight officer's pay, distinguish the WASPs from other civilian groups. They did not receive the higher salaries that civilians usually did. The WASPs were comparable to military officers in many other respects. They were sworn in with the same oath of office as given the male officers. They stood formal inspection. They received officer's training. They could not leave their base without a pass. And, they were on duty 24 hours a day by written military memorandum. The WASPs understood that they would be disciplined the same as other officers. They were issued copies of flying safety and court martial sentences for violation of flying regulations. They received disciplinary action for flying violations under the authority of the 104th Article of War Manual for Court Martial. In fact, WASPs served on flight safety boards convened to punish other military pilots. Also, there are on file numerous official orders requiring WASPs, similar to male Air Force pilots, to proceed to specific places at specific times and to perform specified duties.

VIII. SUMMARY

Mr. Chairman, each and every one of the facts I have revealed today about the WASPs is documented on the public record and in official materials located in the historical archives of the Air Force. These facts totally refute the unsupported and emotional criticisms made by opponents of the bill. The truth is the WASPs were, to nearly all intents and purposes, in the military. They operated hazardous and complicated military equipment and sometimes were used as examples by the Air Corps when headquarters wanted to prove to men that certain new aircraft coming off the production lines could be operated safely. By having women fly the same planes without mishap; the men were shamed into operating aircraft which the rumor mills had falsely maligned. Piloting military aircraft across the country for thousands of miles entirely on their own was dangerous and grueling work. Thirty eight WASPs did lose their lives serving their country.

Their government did not even let the families of these dead girls display gold stars. Nor did the government give burial allowances or insurance payments to surviving dependents.

My argument is that the WASPs are entitled to veterans' benefits because of the nature of their duties. These benefits should not be given merely to offer recognition to the women. The benefits are due to them because they were a part of the military.

They did expect to be militarized. They knew militarization was planned and that steps were being taken to that end. They were not subject to the same draft, yet they volunteered for

low pay, long hours, and military regimen. . Other civilian organizations contributed to the war effort but none of them operated under the military pay system and the military disciplinary system. None of the others, who remained civilian, were recommended for militarization by the War Department.

VETERANS ADMINISTRATION TESTIMONY (Pgs. 45- 52)

Below are highlights of testimony and a determination given by Dorothy Starbuck, Chief Benefits Director of the Veterans Administration. Ms. Starbuck in her opening statement stated “that the membership of this group (WASP) consisted of Federal civilian employees attached to the US Army air forces during World War II. They performed various noncombat flying jobs, including aircraft ferrying and target towing thereby freeing Army pilots for combat duty.”

Additionally, it was acknowledged that flying duty performed by the WASPs are beyond dispute. Duty assignments were issued by orders from the AAF, the wearing of uniforms was required, and provisions were made for subsistence allowance and or military quarters at the duty stations. The USDVA also highlighted what they believed to be two significant ways in which the WASPs, as civilians, deferred from the enlisted and commissioned members of the AAF proper were in regard to the disciplinary procedures to which they were subject and the nature of their employment commitment. As civil servants they were not subject to court-martial procedures. Disciplinary actions, including discharges, were governed by civil service regulations. The commanding officer had the final decision required regarding the appropriate civil service disciplinary action. Another crucial distinction is that the fact that, as civilians, WASPs were able to resign from the program at any given time. Some 8% of those accepted into the WASP training program exercise this privilege before graduating. Of those graduates who committed in the program, 900 of the 1047 graduates remained at the time the program was deactivated in Dec 1944. It was also the opinion of the USDVA that the AAF WASP program was an experimental one, with the possibility of militarization if it proves successful. It was also recognize the controls militarization would bring were needed, example, there was nothing to prevent woman who received her flight training at government expense from resigning immediately upon graduation.

This first WASP militarization bill was introduced in Sept 1943, would have commissioned WASP in the Army of the United States. Capital HR 3358, was amended and resubmitted as HR 4219, was released from committee in Mar 1944. However, this movement coincided with drastic changes in the nation’s pilot training program, including termination of the Civil Aeronautics Authority War Training Service, which had helped turned out over 250 flyers for the Armed Forces. Concern arose immediately that a great many male civilian students and instructor pilots would be grounded. The bill was defeated on the floor of the house in Jun 1944 and in Dec of that year the WASP program was deactivated.

Veterans Administration testimony also included the definition of the term veteran “a person who served in the active duty, naval or air service and who was discharged or released under

conditions other than dishonorable”.

By comparison, the Veterans Administration at these hearings also compared the duties performed by WASPs were equivalent to duties performed by other civilian groups performing hazardous duty including the Civil Air Patrol and members of the merchant Marine, auxiliary military police, construction foreman with the engineer department, certain Red Cross personnel, certain individuals employed with American Expeditionary Forces of the Signal Corps and in the Postal Service, civilian interpreters in the Republic of Vietnam, war correspondents, and other civilians serving in such capacities.

Legislation has been introduced in the past Congresses to extend Veterans’ Administration benefits to these and other civilians who rendered service during a period of war, but to date none has been enacted. It would, of course, be inequitable to extend veterans benefits to the WASPs, to the exclusion of these other categories, unless significant distinctions in the nature of the WASP service can be drawn. Additionally it was stated, that singling out the WASP disciplines for veteran status we clearly discriminated against those countless other civilians we have likewise contributed greatly in the times of grave national need.

POSITION OF THE VETERANS ADMINISTRATION

Upon conclusion of the Veterans Administration testimony, a summary was presented: “in summary we believe benefits under laws administered by the USDVA should be limited to the persons who rendered active service in the Arm Forces, and to their dependents. Accordingly, in view of the discriminatory and precedential aspects of S247, the Veterans Administration opposes its enactment”.

BILL PASSAGE

On Nov 3rd & 4th 1977, The House and Senate passed Public Law 95-202, Title IV, a veterans benefits bill and included the WASPs. President Jimmy Carter signed this bill into law on Nov 23, 1977 making WASPs part of the Army Air Corps.

Editor’s Note: The above statements and comments by Sen. Goldwater is only a small portion of the 385 page Congressional transcript. Additional comments and answers to questions asked by other panel members, written statements from other governmental entities an actual letters and documents from surviving’s WASPs is included in this transcript. I would suggest you do a complete reading of these transcripts as they are filled with data and descriptions of the cultural life and times of those women during WWII.

POST 1977 LEGISLATION

Although legislation was passed to grant WASPs military benefits (as noted in the previous congressional action) the legislation did not include certain caveats granted to other military veterans. Upon the desire to be buried at Arlington Cemetery,

WORLD WAR II

WASP were denied burial based on determination by the Veterans Administration that previous legislation did not allow / include burial at Arlington.

JULY 2009 CONGRESS AUTHORIZED THE GOLD MEDAL

President Barack Obama on July 1, 2009 at a White House ceremony signed into law S614 and recognized the invaluable service to the nation more than 60 years ago. More than 200 WASPs attended the event, many of them wearing their World War II-era uniforms. The audience, was one of the largest ever in the Capitol and too large to fit into Emancipation Hall, also included their families, as well as the families of those who have since died or couldn't travel.

In 2009, it was estimated that only 300 WASPs remained. Today in 2022, it is estimated that only 30 WASPs remain.

MARCH 20210

In a Whitehouse ceremony on 10 March 2010, the Metal of Honor was awarded to the WASPs.

The Congressional Gold Medal is the highest and most distinguished award Congress can award to a civilian. Since the American Revolution; Congress has commissioned gold medals as its highest expression of national appreciation for distinguished achievements and contributions. In 2000 and 2006, Congress awarded the Gold Medal to the Navajo Code Talkers and the Tuskegee Airmen, respectively.

MARCH 2016 LEGISLATION

Legislation was unanimously passed to allow WASPs to be buried in Arlington National Cemetery was introduced Rep. Martha McSally (AZ) to overturn a 2015 decision by the Secretary of the Army John McHugh who rescinded and reversed the original 1977 decision of eligibility of WASPs to be buried at Arlington. Burial rights were re-stored and signed into law by President Obama on 11 May 2016.



Jacqueline Cochran in her record-setting F-86 Sabre, talking with Chuck Yeager - Photo Courtesy Air Force Flight Test Center History Office/Air Force Link

ADDITIONAL WASP FACTS

- In 1942, Nancy Harkness Love created the Women Auxiliary Ferrying Squadron (WAFS) and Jacqueline Cochran formed the Women's Flying Training Detachment (WFTD).
- The WASP formed in August 1943 as an adjunct to the Army Air Forces' war effort and when the WAFS and WFTD programs merged.
- The WASP logged more than 70 million miles and flew every plane the Army Air Forces possessed and every type of mission a male pilot flew during WWII except combat.
- WASP delivered 12,650 aircraft representing 78 different types to bases throughout the nation.
- After an attempt to change the WASP status from civilian to military in March 1944 a militarization bill was defeated in Congress in June and by December the program was officially deactivated.
- The WASP eventually win their militarization and veterans status in 1977. See page 16 for congressional hearings.
- 2010 WASPs awarded the Congressional Gold Medal.
- 2015 Secretary of the Army John McHugh who rescinded and reversed the original 1977 decision of eligibility of WASPs to be buried at Arlington.
- 2016 Legislation was amended to overturn 2015 Arlington burial ban to allow WASPs to be buried at Arlington Cemetery with full veteran benefits as other WWII veterans.

ADDITIONAL WASP RESOURCES - Suggested Links

WASP History - *Texas Woman's University (twu.edu)*

<https://twu.edu/library/womans-collection/collections/women-airforce-service-pilots-official-archive/history/>

Video - 2010 Congressional Gold Medal Ceremony

<https://vimeo.com/106629651>

Video - Honor the WASP by Women In Aviation International

<https://www.youtube.com/watch?v=wLfwC57jNfg>

Photos - <http://www.wingsacrossamerica.us/photo/>

Biography of Jacqueline - <https://www.britannica.com/biography/Jacqueline-Cochran>

Women in Aviation - www.WAI.org

Forward in Flight - Issue 2006 v4.2 WASP Visit to Neillsville, WI High Ground sculpture dedication.



WASP Congressional Gold Metal 2009

Wisconsin Connected WASPs

WASP Roster Name	Full Name	Birth Place	Date of Death	Place of Death
Ahlstrom, Mary Belle	Smith, Mary Belle Ahlstrom	La Crosse, WI	6/15/2012	Austin, TX
Ball, Mae	Behrend, Mae Ball Pietz	Clintonville, WI	07/27/2008	Chicago, IL
Beard, Marianne	Nutt, Marianne Beard	Milwaukee, WI	01/16/2005	Tucson, AZ
Blackburn, Patrica J.	Bonansinga, Patricia J. Blackburn	Quincy, IL	12/2/2006	Wyocena, WI
Bohn, Delphine	Bohn, Delphine	Elk, OK	01/18/1992	
Brier, Evelyn P.	Brier, Evelyn P.	Medford, WI	1/20/2008	Redlands, CA
Christensen, Janice	Christensen, Janice	St. Paul, MN	4/26/1965	Kenosha, WI
Courtney, Marcia E.	Bellasai, Marcia Courtney	Hartford, WI	7/21/2009	Sierra Vista, AZ
Gilchrist, Vivian .	Nemhauser, Vivian Gilchrist	Milwaukee, WI	05/18/2003	Bradford, VT
Hatch, Janet A.	Downer, Janet A. Hatch	Eau Claire, WI	07/02/2003	Phoenix, AZ
Johnson, Helen L.C.	Cannon, Helen L.C. Johnson	Cameron, WI	12/25/2009	Parowan, UT
Johnson, Mary "Jary"	McKay, Mary Catharine Johnson	Madison, WI	6/4/2008	La Mesa, CA
Jones, Ethel Louise	Sheffler, Ethel L. Jones	Heyworth, IL	6/5/2018	Appleton, WI
Kapus, Jeannette C.	Kapus, Jeannette C.	Milwaukee, WI	1/8/2009	Milwaukee, WI
Loft, Katherine	Strehle, Katherine Loft	WI	03/10/1999	Fallbrook, CA
Loufek, Julia	Kimport, Julia Loufek	Davenport, IA	02/22/2003	Madison, WI
Nisley, Violet M.	vanDelden, Vee M.Nisley	Milwaukee, WI	11/20/2003	Indian Wells, CA
Owen, Elinore	Pyle, Elinore Owen	Muskogee, OK	9/12/2013	Merrill, WI
Ray, Margaret	Ringenberg, Margaret Ray	Fort Wayne, IN	7/28/2008	Oshkosh, WI
Seip, Margaret June	Seip, Margaret June	Milwaukee, WI	08/30/1943	Big Spring, TX
Stavrum, Elizabeth A	Lux, Elizabeth Stavrum	Superior, WI	6/3/2010	Carlsbad, CA
Wood, Carolyn P.	Saas, Carolyn P. Wood	Janesville, WI	6/16/2006	Seattle, WA



DRAMA SERIES INSPIRED BY WASPs

Oscar-winning actress to star as founder Jacqueline Cochran in Avenger Field

Complied by Chris Campbell



WASP founder Jacqueline Cochran

Actress Renée Zellweger is slated to star in a TV drama series inspired by the Women Airforce Service Pilots (WASP). According to *Variety Magazine*, Zellweger, 52, will play the role of WASP founder Jacqueline Cochran. Cochran, a record-setting aviatrix led the WASP program during World War II. *Avenger Field* is a one-hour drama series still in development by MGM Universal Television for the World War II drama series "Avenger Field," which will be aired on the Peacock network.

The program takes its name from the historic WASP training base Avenger Field located in Sweetwater, Texas. Between 1942 and 1944.

Jackie Cochran, the leader (director) of the civilian U.S. Army Air Forces WASP program, held more records for speed, distance and altitude than any other male or female pilot in aviation history. In 1935



Actress Renée Zellweger

Cochran became the first woman to enter the Bendix Transcontinental Air Race; in 1937 she came in third, and in 1938 she won the Bendix Trophy. In 1945 she became the first woman civilian to be awarded the Distinguished Service Medal and in 1948 was commissioned a lieutenant colonel in the Air Force Reserve.

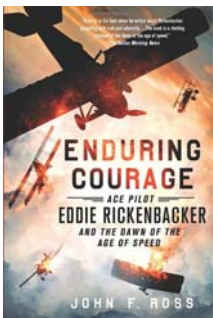
In 1953 Cochran became the first woman to break the sound barrier piloting an F-86 and that year set world speed records. Cochran continued to break her old records and set new ones, including an altitude mark of 55,253 feet (16,841 metres) in 1961, and in 1964 she set the standing women's world speed record of 1,429 miles (2,300 km) per hour in an F-104G Super Star jet. Jacqueline Cochran died in 1980.



ENDURING COURAGE

Eddie Rickenbacker WWI Ace Pilot

Book Review by Chris Campbell



Book By John F. Ross

Shortly after the first Kitty Hawk flight in 1903, and within just a little more than a decade later, a new technology was being used to kill one another what was World War I (1914-1918).

The War pitted the Allied Powers (England, France, Russia, Belgium, the United States and other nations)

against the Central Powers (Germany, Austria-Hungary, the Ottoman Empire and Bulgaria), in Europe. It was a hellish four years of trench warfare, poison-gas attacks and dough-boys going over the top into no-man's land. In addition to artillery shells and two-winged aeroplanes engaged in aerial combat known as dogfights the skies over the battlefields was new.

Biplanes were fragile. With one or two open-air cockpits, the fuselage and two sets of wings were constructed of a wooden frame covered with canvas fabric. The Germans flew Fokkers and Pfalz. Allied Power flyers piloted Nieuports and Spads.

The young men, most were in their early 20s, who actually flew those rickety planes in combat, it was a day-to-day, life-and-death, struggle just to stay alive. Kill the enemy and not be killed. It required quick thinking, flying skills and marksmanship. And also a lot of luck.

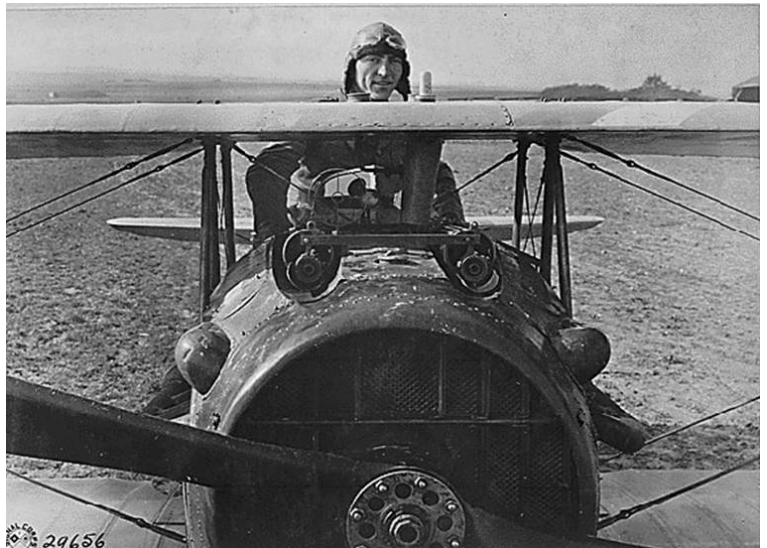
A tall, young man from Columbus, Ohio, who seemed to possess a lot of luck: Eddie Rickenbacker. He was new to flying but not to speed and daring, as before the war he had been one of America's most celebrated racecar drivers. Eddie loved speed and seemed fearless.

Arriving in France in August of 1917, Rickenbacker was assigned to the 94th Aero Squadron, an air combat unit that he would one day command. He made his first solo flight after just two short flights with an instructor. Piloting a wide-winged Caudron trainer, Eddie admitted he was "scared to death..."

Upon attempting take off, the Caudron headed straight for a hangar, scattering nearby onlookers. But Eddie gradually eased back on the stick and the craft slowly lifted higher into the air. Then, after circling the field for several minutes, he faced the reality of making his first solo landing. "Flying is the second greatest thrill known to man," Eddie was fond of saying. "Landing is the first."

When Rickenbacker's mother heard that he was learning to fly, she mailed him a quick letter from home containing her parental advice, "Be sure to fly slow, Edward, and close to the ground." Learning from every mission he flew over enemy lines, he soon mastered the basic skills of dogfighting: keep your head on a swivel, the sun at your back, and attack enemy planes from above and behind.

Rickenbacker's first confirmed "kill" (air victory) was a German Pfalz. He slipped in behind the plane and, gaining on it,



WWI Ace of Aces - Eddie Rickenbacker

opened fire with his twin machine guns at 150 yards, watching tracer rounds cut into the tail then pierce the cockpit. The Pfalz plummeted from the sky and slammed into the ground a mile inside German territory.

"I had no regrets over killing a fellow human being," Rickenbacker later wrote. "I do not believe that at that moment I even considered the matter. Like nearly all air fighters, I was an automaton behind the gun barrels of my plane."

Eddie Rickenbacker would go on to shoot down many more enemy planes, 26 in all having survived 134 aerial combat encounters.

Five kills, confirmed by other person who witnessed the event, were required to become an ace. By war's end, Rickenbacker was the top American pilot with the most kills, making him America's ace of aces, a title and honor that would precede him the rest of his life.

A German pilot who had many more kills than Rickenbacker was Manfred Von Richthofen, the infamous Red Baron; so-named because the nose of his plane and that of his squadron, known as "The Flying Circus," was painted red. Richthofen is credited with shooting down an incredible 80 Allied planes before he himself was shot down and killed over Vaux-sur-Somme, France, on April 21, 1918, just seven months before the end of the war.

Following War to End All Wars, Rickenbacker returned to civilian life, marrying Adelaide Frost and eventually adopting two sons, Bill and David. Eddie never lost his passion for car racing and aviation. He became the owner of the Indianapolis Motor Speedway, as well as president and general manager of Eastern Air Lines.

It was on a business flight with Eastern that Eddie was involved in a tragic airplane crash on February 26, 1941. He was a passenger on a plane attempting an instrument landing at Atlanta, Georgia, on a foggy, rainy night. When the pilot, Captain James A. Perry, informed Eddie of the conditions at the airport, Rickenbacker said, "You're the pilot, do what you think best."

Speculation for the DC-3 crash pointed to faulty instruments. Eight people were killed, three crew and five passengers, and

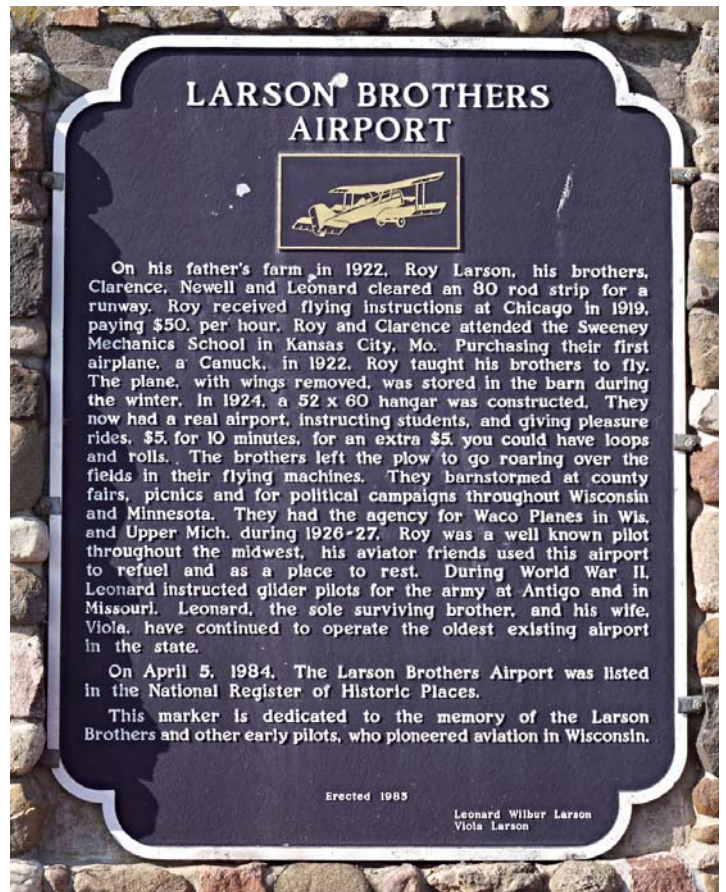
LARSON BROTHERS AIRPORT Larson, WI Considered One of Wisconsin's Oldest Airports

The Larson Airport, now known as Leonard Larson Aviation Field, is located about 1 mile northwest of the village of Larson. The airport had its first beginnings on the Larson farm in the fall of 1922. An 80 rod strip was cleared in a field near the farm buildings and two government training planes purchased by the Larson brothers in 1922 costing \$125 each. Roy Larson was the assisted by his brothers Clarence, Newell and Leonard.

Roy Larson became interested in planes during World War I when he was serving with the 318th Infantry in France. He admired the ease with which the planes flew overhead compared with the discomforts of the ground troops.

In 1919 he enrolled at the Ralph C. Diggins aviation school in Chicago and after eight hours of actual flying time, he began "barnstorming" as an independent aviator. At that time, no examinations were required for a license. Roy Larson began giving flying lessons in 1923 with his brothers. Clyde Lee and Merle Zuehlke as his first students. Clyde Lee later became an instructor and stunt flier and in 1932 was lost while attempting to fly across the Atlantic Ocean. Merle Zuehlke later became manager of the Curtiss-Wright Airport in Milwaukee.

The Airport was closed during World War II but Leonard Larson turned to instructing cadets and glider pilots for the United States Army Air Corps. After the war, the Larson Airport was reopened for student instruction, aircraft work and storage.



Wisconsin Historical Sign at Entrance to Airport

eight were injured. Eddie suffered such serious injuries that he was hospitalized more than four months and would walk with a limp the rest of his life. But once again Rickenbacker luck prevailed...he had survived.

Later in life, Eddie Rickenbacker would survive yet another airplane crash. During World War II he was a civilian passenger aboard a military plane that ran out of gas while trying to locate a tiny refueling station in the Pacific Ocean and had to ditch. He and six other men spent 24 days in three small, rubber life rafts before being rescued.

A true American hero, he died at the age of 82 on July 23, 1973, of sudden heart failure.

Captain Eddie Rickenbacker - America's Ace of Ace, remains were cremated and buried next to his parents' at Greenlawn Cemetery in Columbus, OH.



YOUTH AVIATION APPRENTICESHIP PROGRAMS

The Wisconsin Department of Transportation (WisDOT) and the Wisconsin Department of Workforce Development (DWD) are jointly organizing Wisconsin's first statewide Youth Apprenticeship programs in aviation for maintenance and Avionics. Both are under development and will be ready in summer 2022. In addition, WisDOT and DWD is also currently creating a new Airport Operations Youth Apprenticeship program, with.

WisDOT and DWD are committed to helping build Wisconsin's aviation and aerospace workforce. Additional info will be published as this future program develops. This program is looking for employers who wish to participate.

For additional info or to be placed on our *Call & Notification List*, please contact Chris Campbell at cacampbell@jvl.net



Boeing Stearman - Continued from Pg. 17

Widely known as the Stearman, over 10,600 of these planes were built by Boeing between 1930 - 1940 as model 75 or named Kaydet. This airplane was used as the WASPs as their primary trainer aircraft and was also designated as a PT-17 by the Army Air Corps. After the war, thousands of these planes were either scrapped or sold as war surplus to civilians.



Boeing Stearman in U.S. Navy Markings

Museum - Continued from Pg. 7

In December 1937, Rae Rearwin acquired the LeBlond Tool company, also known as LeBlond Engines, which were used most commonly on the Rearwin aircraft. The company was sold at a significantly low price to Rearwin because they were in financial trouble. When the company was officially Rae's, he renamed the engine after his two sons, Ken and Royce. The



Jim Hammond's Rearwin Sportster 8500 Delux - Photo by Nigel Hitchman

combination of the two names resulted in the Ken-Royce engine. The name was the only aspect of the engine that was changed. The LeBlond and Ken-Royce engine are relatively indistinguishable.

When I was conducting my research I had multiple people ask me why an airplane called the Porterfield Flyabout and the Rearwin Sportster looked so similar. I did some searching and found that, in fact, the design of the Rearwin Sportster closely resembles the Porterfield Flyabout. The Flyabout was designed by engineer Noel Hockaday. Ed Porterfield had seen Hockaday's finished design, bought the rights to it and started the Porterfield company to build it. Then he hired Hockaday to develop the plane into the Flyabout. Hockaday had previously worked with Douglas Webber, an engineer at American Eagle Aircraft Corporation.

Both men later moved to work for Rearwin Aircraft because the pay was better. Their influence at Rearwin resulted in similar design features that were used in the Sportster, therefore resembling the Hockaday-designed Flyabout.

While Rearwin wanted to produce the most affordable airplanes possible because of the Great Depression, he couldn't

afford to produce large biplanes that were common in the 1920s. Monoplanes had a lot less material and were shown to be more efficient in general flight than a biplane. If you compare a biplane with a 30-foot wingspan to a monoplane with the same wingspan, you can probably guess that the biplane, with twice the wing surface area, would have twice the lift. However, this isn't the case.

This is caused by the airflow disruption created by stacking the wings and the added drag of the second set of wings and struts of the biplane. This does make the monoplane faster in flight, but the biplane will get off the ground more quickly. The first airplane Rearwin built in 1929 was a biplane called the Ken-Royce.

The company was sold to investor Frank Cohen's Empire Ordnance company in 1942 and became Commonwealth Aircraft. While Ken and Royce had always been involved in the Rearwin company, they were not interested in taking over the business. Rearwin Aircraft & Engines' investments and specialty in small radial engines left them poorly positioned for the coming age of horizontally-opposed engines that would

dominate after World War II. Commonwealth went bankrupt in 1946 and was dissolved by March 1947.

The Rearwin Sportster 8500 Deluxe that is on display at the Kelch Aviation Museum spent most of its life in Wisconsin, winning Grand Champion at the EAA convention at Oshkosh in 1974 after its four-year restoration by Alfred Nagel. This aircraft then became a part of a private collection in Minnesota for almost three decades until the owner passed away, and the airplanes were auctioned off. For some reason, the Rearwin was one of the last planes to go. This was when it was bought by Jim Hammond and later donated to the Kelch Aviation Museum.

What a history! This is only one of 20 plus aircraft the Kelch Aviation Museum has. Each of these pieces has incredible histories like the Rearwin. Each piece reminding us of a time when aviation was new and constantly evolving into something better.

The next time you see an aircraft from the 1930s, try to picture the pilot who flew it first. The field of aviation has come a long way, but we must not forget the roots it came from.



WAYS TO MAKE THE MOST OF YOUR WAHF EXPERIENCE

By Chris Campbell - Membership

Up front, It's our the mission:

To collect and preserve the history of aviation in Wisconsin, recognize those who made that history, inform others of it and promote aviation education for future generations.

USE THESE TIPS to take your WAHF membership to the next level. As WAHF looks ahead to the coming year, what are your aviation interests? Do you need new or enhanced skills to reach those goals or change your career path?

WAHF membership can help you advance your knowledge of early and current Wisconsin aviation history. We want to help you increase your knowledge and assist you in making new and changing connections within the Wisconsin aviation community.

Here are a few ways you can take your membership to the next level and shine a light on historical aviation in Wisconsin as well as the entire nation and the accomplishments of those individuals that made that history.

1. ROBUST PARTICIPATION is what adds value, meaning, and satisfaction to all the things we do. Whether we're participating in a hobby, an occupation, or even a relationship – being actively engaged is the difference between an ordinary and extraordinary experience. WAHF events are the best place to get the latest information. No matter where you are in your knowledge of aviation or a career in aviation, there are countless volunteer opportunities for you to participate in.

2. SHARE YOUR KNOWLEDGE Establish yourself as a subject matter expert (SME) and gain additional information from your peers by presenting at a WAHF conference and/or webinar.

Participate and share our common WAHF Goals & Objectives:

- Perpetuate the memory of such persons and record their contributions and achievements in a manner that may be deemed appropriate;
- Foster, promote, and encourage a better sense of appreciation of the origins and growth of aviation and the part aviation has played in changing the economic, social, and scientific aspects of our lives;
- To establish and maintain a library and archive for collecting and preserving for posterity, the history of those honored by the organization, together with a documentation of their accomplishments and contributions to aviation, including, such items as aviation pictures, paintings, books, papers, documents.

If public speaking isn't your forte, perhaps writing is. View the

current call for papers and contribute your written articles for publication in *Forward In Flight*.

Whether contributing updates to existing volumes, or authoring / coauthoring new articles to help capture Wisconsin's aviation history, add to our knowledgebase. There's no better way of establishing a personal sense of accomplishment than to be a published writer. WAHF *Forward in Flight* (FIF) is constantly on the lookout for new authors, manuscripts and topic ideas. Your expertise and skills are in need.

Over the years, FIF's editors and co-editors, WAHF board of directors, and industry leaders have maintained a close working relationship and collective goal to cohesively disseminate historical aviation information to advance WAHF as a trusted historical aviation resource. Share your findings in this respected platform and garner additional recognition for your work.

3. SHARE YOUR EXPECTATIONS Do you have an idea for one of our WAHF conferences or FIF articles? Contact our FIF editor or a WAHF board member and help shape the topics, speakers, and experience for other professionals in the industry.

4. HELP SHAPE THE INDUSTRY 20 MINUTES AT A TIME. The success of any organization and fulfillment of its mission and goals is to "have a language we can all speak together." As a member of the WAHF, you can also consider yourself a member of a Specific Interest Group (SIG) made up of historical enthusiasts and aviation professionals who regularly meet and share our common interests. Each SIG member can easily participate with only 20 minutes or less over the course of a year. It's an easy way to impact the future growth of WAHF while sharing your knowledge and as a WAHF SIG influencer.

You don't need to be an expert to participate and all members are encouraged to participate. Invest in yourself by joining or renewing your membership.

Your support, your suggestions, nominations, and contributions of time, talent, and treasure, help us accomplish our mutual goals. The WAHF board members are very appreciative of your efforts.

Our strengths is also in a robust membership. Encourage your friends to join WAHF or gift them a subscription to FIF. Additionally, WAHF offers aviation scholarships to our future aviators.

See Pg. 26 - for **CONTACT US** info.

We look forward to your robust participation.





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Web Site

CALENDAR OF EVENTS

Mark Your Calendar !

WAHF EVENTS

October 22 - Wisconsin Aviation Hall of Fame Inductions

EAA Eagle Hanger, Oshkosh, WI | www.wisconsinaviationhalloffame.org

MIDWEST AVIATION EVENTS OF INTEREST

June 4-5 - USAF Thunderbirds¹, Fort Wayne Air Show 2022

Fort Wayne, IN, 122nd FW ANGB | www.fwairshow.com

June 4-5 - USN Blue Angels¹, Chippewa Valley Airshow 2022

Chippewa Valley Airport, Eau Claire, WI | www.chippewavalleyairshow.com

June 24-25 - Wings Over Wausau Airshow

Wausau, WI, Wausau Downtown Airport | www.wausauevents.org

July 2-3 - USAF Thunderbirds¹, Battle Creek Field of Flight Air Show

Battle Creek Executive Airport | www.bcballoons.com

July 2-3 - USN Blue Angels¹, National Cherry Festival Air Show 2022

Traverse City, MI | www.cherryfestival.org/p/events/air-show

July 9-10 - Selfridge ANG Open House

Detroit, MI, 127th Wing, Selfridge ANG Base | www.teamselfridge.com

July 16-17 - USAF Thunderbirds¹, Duluth Air & Aviation Expo 2022

Duluth International Airport | www.duluthairshow.com

July 16-17 - USN Blue Angels¹, Thunder Over Michigan Air Show 2022

Ypsilanti, MI Willow Run Airport | www.yankeeairmuseum.org/airshow

July 25-31 - EAA Air Venture Oshkosh 2022

Oshkosh, WI, Wittman Regional Airport | www.eaa.org/airventure

July 23-24 - USN Blue Angels¹, Milwaukee Air & Water Show 2022

Milwaukee Bradford Beach Lakefront | www.mkeairwatershow.com

August 20-21 - Chicago Air & Water Show

Chicago, IL, North Ave Beach | www.chicago.gov/city/en/depts/dca/supp_info/chicago_air_and_watershow.html

September 17 - Northwest Illinois Airshow

Freeport, IL, Albertus Airport | www.nwilairshow.com

October 3-5 - WI Annual Aviation Conference (WAC)

Sponsored by WI Airport Management Association (WAMA)
Eau Claire, WI | <https://wiama.org/events>

¹Notice: Dates shown are for jet team performances only. Military jet teams may not perform on all days of multi-day events. Check event website for full event schedules.

Having a Conference or Exhibition?:

Please submit your events to be listed in our *Calendar of Events*.
To submit Calendar Listings - Email: cacampbell@jvlnet.com

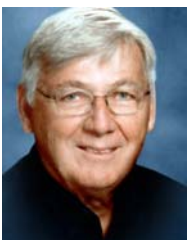
IN MEMORIAM



Richard (Dick) Wixom, age 92 passed away May 28, 2021 in Janesville, WI. Dick was the former FBO of Blackhawk Airways at the Rock Co. airport in Janesville. Inducted into the WAHF in 2010.



Jean C. Hauser, age 93 passed away on September 18, 2021 in West Bend, WI. In July 1965, Jean became the first female deaf pilot in the state of Wisconsin. Inducted into the WAHF in 2008.



Erling Isely, age 81 passed on June 30, 2021 in DeForest, WI. Erling was a corporate pilot for Beloit Corp and Oscar Mayer, retiring in 1999. Erling was active in many national humanitarian organizations.



YOUR WAHF MEMBERSHIP

Typically, WAHF membership is for a calendar year.

Because of the fantastic support of our members like you, one of the improvements and growth we've experienced in recent years is our aviation scholarship program and our recent partnership with the Kelch Aviation Museum in Broadhead, Wisconsin.

We will continue expand and grow our accomplishments for you, a valued WAHF member.

When you nominate men and women for induction into the Wisconsin Aviation Hall of Fame, invite members of the WAHF Speakers Bureau to your events, recruit new members, purchase WAHF logo merchandise, share your issue of **Forward in Flight**, or simply recommend to your friends to support the Wisconsin Aviation Hall of Fame, you are helping us preserve and share Wisconsin's rich aviation history.

**Thank you for your part in making
Wisconsin Aviation Hall of Fame
become the best it can be!**

Your prompt renewals save the organization time and money so that we can continue to bring great articles about aviation history in Wisconsin and about those who created it. Please renew your membership promptly so you don't miss another issue of our quarterly aviation magazine **Forward in Flight**.

Thank you again for supporting the Wisconsin Aviation Hall of Fame. If your renewal is already on its way, thank you!

For membership or advertising inquiries, please contact:
WAHF Membership | cacampbell@jvl.net.com

Attn: Snowbirds! Please let us know your winter mailing address so we can send your *Forward In Flight* directly to your Snowbird address and avoid any post office forwarding errors.



Any time of year is the right time to give a gift WAHF membership

ANNUAL MEMBERSHIP LEVELS: Please Check

___ Youth (Under 18)	\$10
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___ Couple (Annual)	\$40
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Your contributions will help ensure Wisconsin's aviation pioneers and outstanding students in aviation education will continue to be appropriately recognized. Your Contributions, in any amount are greatly appreciated.

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**For scholarship donations, please make a Separate Check payable to:

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The Wisconsin Aviation Hall of Fame is a 501(c)(3) organization.

Mail this form to: Membership, WAHF
416 E. JF Townline Road
Janesville, WI 53545

CALL FOR PAPERS

Do you have a historical aviation story to tell & would like to share your works in *Forward in Flight*?

WAHF is always seeking co-editors and articles for publication in future issues of *Forward in Flight*.

Should you have an interest, Please contact
WAHF President Tom Thomas
608-332-0490

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www.wisconsinaviationhalloffame.org