WWII
7TH
FERRYING
GROUP
COLLECTION
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7TH FERRURING GROUP
COLLECTION

CASCADE COUNTY
HISTORICAL SOCIETY
Great Falls, Montana
1976-2006

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In March 1941, the U.S. Congress approved the Lend-Lease Act, allowing the United States to provide supplies and materials to Great Britain without the U.S. officially entering the war against Germany and her allies. After the Germans invaded the Soviet Union in June 1941 the Lend-Lease Act was extended to the Soviet Union. Although hesitant at first, the Russians formally approved the Alaska-Siberia (ALSIB) ferry route on August 3, 1942.

The 7th Ferrying Group, Air Transport Command of the U.S. Army Air Forces primarily ferried Lend-Lease aircraft and supplies from Great Falls, Montana to Fairbanks, Alaska. From there the planes were flown by Russian pilots along the ALSIB ferry route, where they were delivered directly to the Eastern Front and used to fight Hitler's invading forces. The secondary mission of the 7th Ferrying Group was the delivery of combat aircraft to U.S. domestic bases and foreign destinations in all theaters of operations throughout the world.
On January 7, 1942, soon after the attack on Pearl Harbor and the U.S. entry into WWII, a small contingent of flight crews and administrative personnel transferred to Seattle, Washington, becoming the nucleus of what was originally known as the Northwest Sector of the Air Corps Ferrying Command. That group, which became the 7th Ferrying Group, began ferrying B-17s from the Boeing factory in Seattle to modification centers and air bases nationwide.

The decision was made in May 1942, a year after Germany attacked Russia, to move the headquarters of the 7th Ferrying Group from Seattle to Gore Field in Great Falls, Montana. Gore Field, already the location of the existing municipal airport, was an ideal location. It was far removed from the danger of coastal attack, had a ready-made landing field with two large hangers capable of servicing large aircraft, was located at the base of the north-west route to Alaska and had over 300 clear flying days a year.

On June 19, 1942, approximately 160 enlisted men, their commanders, and equipment arrived in Great Falls from Seattle. Temporary headquarters were established in the Great Falls Civic Center to house and mess the enlisted men who slept on cots set up in the ice arena. Some men stayed in tents at the Fair Grounds. Officers stayed at the Park Hotel across the street from the Civic Center. These temporary barracks were used while other accommodations at Gore Field were rushed to completion by October 1942.
Operations began immediately for ferrying aircraft up the newly opened ALSIB route. Lend-Lease aircraft and supplies enroute to Russia were flown to Great Falls by military and civilian men and WASPs (Women Air Force Service Pilot). Once in Great Falls, military and civilian men and women inspected, modified, repaired, serviced, and painted aircraft with Russian insignia. After the Russian insignias were applied to aircraft they became Society property. Then 7th Ferrying pilots delivered them to Ladd Field in Fairbanks, Alaska—now Fort Wainwright—the coldest airfield in the world.

At the 7th Ferrying Group's air training center in Great Falls, major emphasis was placed on training Class 5 pilots who were qualified to fly all types of aircraft in any kind of weather condition. Soviet technicians, pilots, procurement officials, diplomats, and others were also assigned to Great Falls.

The first Lend-Lease warplanes for the ALSIB route, five A-20's, landed at Ladd Field on September 3, 1942. Extending from Great Falls, the airway stretched across Western Canada through Alberta, British Columbia, and the Yukon to its North American terminus in Nome, Alaska. The one-way journey was a distance of over 2,400 miles. At Ladd Field the American pilots transferred flight duties to the Russian pilots. There, the Russians inspected and accepted the aircraft before flying them to Nome, across the Bering Sea, and then across Siberia to the Russo-German Front.

During the three-year life of the ALSIB operation there were many changes in unit designation. The 7th Ferrying Group relinquished control of the stations along the Alaskan route in October 1942. As a result of this action, the Alaskan Wing of the Air Transport Command was formed. However, the 7th Ferrying Group continued to ferry aircraft and equipment over the ALSIB route.

While the airbase at the Great Falls Municipal Airport was known as Gore Field or West Base, another base sprang up just east of the city. The Great Falls Army Air Base became known informally as East Base and in 1955 was renamed Malmstrom Air Force Base in honor of Colonel Axel Malmstrom. East Base served briefly as a B-17 training base and in October 1943 was turned over to the Alaskan Wing of the Air Transport Command. The flow of aircraft and freight to the Soviet Union then increased. The Alaskan division at East Base processed the aircraft which were then flown over the inland route by the 7th Ferrying Group. On their arrival at Ladd Field, the maintenance section processed them again. By the time the war ended, the 7th Ferrying Group had delivered 7,926 aircraft, mainly A-20's, C-47's, P-39's, and P-63's to the Soviet Union by way of Alaska, losing only 68 planes in the process.

The ALSIB route became one of the Allies most vital supply arteries of the war. The last flight out of Fairbanks was on September 20, 1945. By the end of September all Russian personnel had left Great Falls. The 7th Ferrying Group of the Air Transport Command remained at Gore Field until it was deactivated in November 1945. With the end of ferrying to the Soviets, many U.S. pilots were released to civilian life while others were absorbed into other ferrying groups for the purpose of delivering warplanes from foreign lands to storage bases around the U.S.

Early in 1983, four former members of the 7th Ferrying Group stationed at Gore Field, John Czekala, Howard Counell, Monroe Hammond, and Loren Parmelee began planning for a reunion in Great Falls. They compiled a roster, mailing lists, and biographies of former members. The first reunion held at Gore Field on September 1986, included as many members of the 7th Ferrying Group as could be located. The reunion was advertised in veterans' newsletters and magazines.
Following the September, 1986 reunion, officers were elected. They included C.D. Markle as Quartermaster/Treasurer, Byrnes Ellender as Historian, and Barbara Parmelee as Executive Secretary. John Radiz was put in charge of publicity and public relations and Rex Tanberg produced the first newsletter. The newsletters called Gore Field: The 7th Ferrying Group WWII Reunion Association (pub. 1986-2001) requested copies of Special Orders, Tailwinds newsletters, photographs, and personal stories. Byrnes L. Ellender took over publication of the quarterly newsletter in mid-1987 and continued to hold the positions of both Historian and Editor. By-laws were drawn up and changed as needed. It was decided that terms of office for Newsletter editor/Historian, Quartermaster and Executive Secretary would be open-ended. The mailing list continued to be updated as more and more people were contacted. By 1988 the roster consisted of almost 400 names.

As former 7th Ferrying Group members aged, the rigors of organizing reunions became more difficult. The last reunion was held in Great Falls in August 2001.

The Montana Air National Guard now occupies the facilities on Gore Field where the 7th Ferrying Group was based during WWII.
ARCHIVES SCOPE AND CONTENT
(SC 61)

RECORDS FROM 1942-2000.
5 LINEAR FEET


The correspondence includes mainly letters to Byrnes L. Ellender from Deane Brandon on 7th Ferrying Group history; John Czekala on reunion planning; Elmer T. Harshbarger; C. D. Markle on reunions and newsletter; Barbara Parmelee on mailing list; John Radiz on publicity; Rex Tanberg on organization and Blake Smith on publishing his book. The general correspondence regards mainly newsletters and reunions.

Organizational materials include the 7th Ferrying Group Reunion Association By-laws for 1992. Printed material consists mainly of operation and maintenance manuals for various aircraft, pilots training instructions and published articles related to WWII.

Subject Files consist mainly of Operations/Special Orders arranged in chronological order; groups of papers regarding personal military history compiled and donated by individuals such as Wilhelm D. Mehlinop, Donald C. Gilbert, Paul L. Collins, Wallace H. Blackwell, Arthur C. Stipe, Robert S. Hawkins, John Yauk, William B. Stohry and Lewis L. Wilhelm. Subject Files also include groups of papers compiled and labeled by Byrnes L. Ellender regarding various topics for research and newsletters.

Writings include a history of ALSIB written by Deane Brandon, manuscripts written by Bob LeSuer and Harold J. Wollak and writing by Byrnes L. Ellender. The blueprint is of Gore Airfield's general containment area.

Newspaper clippings include articles on the 7th Ferrying Group from local newspapers, articles regarding WWII, articles regarding reunions and personal biographies. Miscellany includes mainly individual items not related to other subject groupings. Oversize material consists of front pages of mainly Alaskan newspapers with major war related headlines and aeronautical charts for Montana, Alaska and Canadian Provinces.

Approximately 900 photographs related to the 7th Ferrying Group are also part of the Cascade County Historical Society Photograph Collection.
The Cascade County Historical Society is the official repository of the 7th Ferrying Group Collection. Byrnes L. Ellender, in his role as Historian for the 7th Ferrying Group Reunion Association collected, organized and donated the bulk of this collection. Accession numbers and donors are listed in the lower right corner on the front of each file folder. Provenance was maintained for each separate donation.

1991.027.0044 Taken at Ladd Field, Alaska, one of the two men standing on the wing is Soviet Major Prokrovsky. Donated by Byrnes L. Ellender.
7TH FERRYSING GROUP OBJECT INVENTORY

2002.074.0001
Personal Artifacts/Personal Gear/ Goggles/ Red Lens

1991.07.05.014
Tools & Equipment for Science & Technology/ Medical & Psychological/ T&A/ Needle/ Morphine

1991.07.05.039
Communication Artifacts/ Documentary Artifact/ Passenger Service/ Knope/ Pilot

1991.07.05.040 A-B
Personal Artifacts/ Adornment/ Pin/ Lapel

1991.07.05.042
Personal Artifacts/ Clothing/ Headgear/ Cap Service/ Class "A"

2002.014.0631
Tools & Equipment for Science & Technology/ Surveying & Navigational/ T&A/ Pilot/ Navigation

1995.02.01.011
Personal Artifacts/ Clothing/ Outerwear/ Shirt/ Dress/ Service/ Class "B"

Items Not Pictured

1991.07.05.010
Tools & Equipment for Science & Technology/ Medical & Psychological/ Emergency Capsule/ Ammonia

1991.07.05.045
Communication Artifacts/ Documentary Artifact/ Receiver/ Phone/ 1944
Before World War II, most Americans didn’t believe women could fly professionally, but during the war over 1,000 women pilots proved that they had the “right stuff.” These were the Women Airforce Service Pilots (WASP), who served as pilots on the home front.

They ferried new aircraft from factories to U.S. air bases, towed targets for artillery trainees, served as flight instructors, and test-piloted aircraft.

38 died in service to our nation. Enclosed is their story.
Dear Ms Doig,

I'd like your name to be listed on the Founder's Roster at the National WASP World War II Museum...

...the only museum whose sole purpose is to honor the 1,074 women who ferried aircraft, towed artillery targets, trained male pilots and served as test pilots in World War II.

Ms Doig, my interest in aviation began as a college freshman when I met a young lady learning to fly who repeatedly came to class with an air of excitement around her because she had just finished a flying lesson.

At first, my dad refused to let me take flying lessons. But in my junior year, he agreed to let me learn to fly at a little airport nearby.

Soon after my flying lessons, the Japanese bombed Pearl Harbor.

Like every other American, I wanted to do my part to help in the war effort. So, as a 20-year-old with 100 hours of flight training, I was accepted and graduated from Women Airforce Service Pilots (WASP) training at Avenger Field in Sweetwater, Texas.

As a WASP, I piloted aircraft like the PT-13, PT-17, and PT-19. I also flew an AT-6 pulling 20' x 3' targets for aerial gunnery practice. This was dangerous work as shells would sometimes miss the targets and hit our planes.

I'm proud of my service to our nation in World War II, and the role we played in opening doors of opportunity for women. But I've never understood why we were denied the same benefits and recognition that other veterans received.

And I think you'd agree it was unfair that the 38 WASP who died in WWII didn't...

P.O. Box 96679 ★ Washington, DC ★ 20090-6679 ★ www.waspmuseum.org
even receive death benefits. We would literally pass the hat to make sure that a fallen sister pilot received a proper burial.

You can help “right this wrong” today by adding your name to the Founder’s Roster at the National World War II Museum.

Please use the enclosed envelope to accept my invitation today.

Jackie Cochran, who set many speed records against men in her day, began teaching women to fly the latest, most powerful, and fastest American military planes of World War II so that more men would be available for our combat overseas.

At first, Army Air Corps General Hap Arnold resisted her plan to train women pilots to ferry military aircraft around the nation. He knew men had trouble handling the B-24 bombers and was sure that women couldn’t handle such difficult planes. But later, General Arnold said,

You and more than 900 of your sisters have shown that you can fly wingtip to wingtip with your brothers. If there was ever any doubt that women can become skilled pilots, the WASP have dispelled that doubt.

A War Department Newsreel said it well,

Fearless as falcons and twice as fast. In their new occupation these modern girls are still the feminine heirs to a noble tradition of pioneering strength and courage. Off they go -- to deliver new fighter and trainer planes to masculine fighting hands. Stronger hands perhaps, but no more valiant than those of their sisters, the WASP.

You may not have heard much about the WASP, or the “Fly Girls” as they were called in the media, before today. That’s unfortunate, but understandable when you consider the fact that...

★ Official WASP files were sealed for 35 years.

★ The War Department abruptly disbanded the WASP in 1944 when victory in Europe was assured.

★ It wasn’t until 1977 that members of the WASP won the right to some of the benefits of their male counterparts, and...

★ Finally in 2002 -- 57 years later -- the WASP were awarded the right to be buried in Arlington National Cemetery with honors.

So I’m not surprised if you haven’t heard of the WASP before today. Most Americans have
not either, but that is going to change!

**Huge WASP Museum Expansion Underway!**

The National WASP WWII Museum’s mission is to pass on the history of the WASP, including our ability to overcome obstacles, to future generations.

Unfortunately, the museum is not climate-controlled, which limits its ability to display many artifacts and heirlooms donated by my sister pilots and their families...

The Museum must also raise funds to build a new Tower and teaching theater so that young people can be inspired by our example...

Will you help the National WASP WWII Museum make these improvements?

The WASP were the only group of pilots to fly every type of military aircraft in World War II. Cornelia Fort, who was the first WASP to die, said, “We have no hopes of replacing men pilots. But we can release a man to combat...to overseas work.”

Motivated by patriotism, a love of flying, and a keen sense of adventure, these women overcame obstacles to:

- Log more than 60 million miles of operational flights!
- Deliver 12,650 military aircraft -- more than half of all combat aircraft built in the U.S. for World War II.

But sadly, our story, as well as so much other WWII history, is fading fast.

**Most WASP are Now in Their Early '90s**

Just over 200 of the original 1,074 WASP members are still alive, and our numbers grow slimmer each year.

That’s why I’m hoping you will accept my invitation today to help us build the Hangar One expansion while there are still WASP healthy enough to attend its Grand Opening.

Will you send a tax-deductible gift of $1,000 or $500 to help build the new Tower by 2013?

Or, will you send a gift of $250 or $100 to make the Museum climate-controlled by this summer or to build a teaching theater?

While gifts of all sizes are appreciated, I hope you can send at least $38 or more.
Because, if you can donate $38 -- which is symbolic for the number of Fly Girls who died in World War II -- your name will be permanently displayed on the **Founder's Roster** at the Hangar One expansion.

**Better yet, if you can send a donation of $47 or more -- symbolic for the P-47 Thunderbolt that many WASP flew during WWII -- you will receive a hand signed copy of the highly praised, recently published book, *Flying for Her Country*, by Amy Goodpaster Stebe.**

*Air & Space* magazine said *Flying for Her Country* is “Excellent... meticulously researched, well written, and convincingly argued and documented,” and it received a great review by General Chuck Yeager as well.

**Special Quick Response Bonus**

As an added bonus, if you respond to my invitation with a gift of $25 or more in the next 10 days, you will receive a special deck of *Fly Girls* playing cards that are available exclusively through the Museum.

The enclosed 1943 LIFE Magazine poster of WASP Shirley Slade is a gift to you for your interest in passing on our WWII history to the next generation. Please help tell the story of the WASP so that future generations are inspired to serve our nation and overcome obstacles in their lives. Thank you.

For the *Fly Girls,*

Mary Vandeventer

Mary Alice Putnam Vandeventer
WASP, Class of 44-W-7

P.S. I hope you accept my invitation to be listed on the **Founder's Roster** at the National WASP World War II Museum. The Museum recently sponsored a Memorial Day Fly-In that featured 23 *Fly Girls* including me, as well as many other WWII pilots. While I love reunions, it is even more important to build a lasting legacy so that future generations will be inspired to overcome obstacles.
Please make your generous contribution check payable to National WASP WWII Museum and send to P.O. Box 96679, Washington, DC 20090-6679. Your gift will be used to build the Hangar One expansion, to enhance the existing museum, and to keep the memory of the WASP alive.

Please allow 6-8 weeks for delivery of your gift(s).

*Although the National WASP WWII Museum is a non-profit 501(c)(3) organization, a small portion of your generous gift may not be tax-deductible for federal income tax purposes. When you receive your gift item(s), a tax receipt will be included for you detailing the tax-deductible portion according to IRS regulations.

Please visit us at historic Avenger Field in Sweetwater, TX, or on the web at waspmuseum.org. Or give us a call at (325)235-0099.

THANK YOU!

National WASP WWII Museum, Inc. is a 501 (c)(3) organization, gifts to which are deductible as charitable contributions for Federal income tax purposes. A copy of our most recent financial report can be obtained by sending $3 with your request to: National WASP WWII Museum, Inc., P.O. Box 456, Sweetwater, TX 79556-0456. Residents of the following states may also obtain information by contacting: *California:* NWASP’s audited financial statement is available upon request to NWASP. 100 percent of your gift may be deducted under Federal and State income tax laws. *Florida:* A COPY OF THE OFFICIAL REGISTRATION AND FINANCIAL INFORMATION MAY BE OBTAINED FROM THE DIVISION OF CONSUMER SERVICES BY CALLING TOLL FREE WITHIN THE STATE 1-800-435-7352. REGISTRATION DOES NOT IMPLY ENDORSEMENT, APPROVAL, OR RECOMMENDATION BY THE STATE. Registration #CH30350. *Georgia:* Upon request, National WASP WWII Museum, Inc. will provide a full and fair description of this and its other programs, and a financial statement or summary. *Maryland:* A copy of WASP’s current financial statement is available on request to WASP, P.O. Box 456, Sweetwater, TX 79556-0456. For the cost of copies and postage, registration documents and other information are available from the Maryland Secretary of State. *Minnesota:* 100 percent of your gift may be deducted as a charitable contribution under Federal and State income tax laws. *New Jersey:* INFORMATION FILED WITH THE ATTORNEY GENERAL CONCERNING THIS CHARITABLE SOLICITATION MAY BE OBTAINED FROM THE ATTORNEY GENERAL OF THE STATE OF NEW JERSEY BY CALLING 973-504-6215. REGISTRATION DOES NOT IMPLY ENDORSEMENT. *New York:* Upon request, a copy of National WASP WWII Museum, Inc.’s last annual report filed with the Attorney General is available from WASP or from the New York State Attorney General’s Charities Bureau, Attn: FOIL Officer, Department of State, 120 Broadway, New York, New York 10271. *North Carolina:* Financial information about this organization and a copy of its license are available from the State Solicitation Licensing Branch at (888) 830-4989. The license is not an endorsement by the state. *Pennsylvania:* The official registration and financial information of National WASP WWII Museum, Inc., may be obtained from the Pennsylvania Department of State by calling toll-free within Pennsylvania, 1-800-732-0999. Registration does not imply endorsement. *Virginia:* A financial statement is available from the State Division of Consumer Affairs in the Department of Agriculture and Consumer Services upon request. *Washington:* Registration #10024. The registration statement required by the Charitable Solicitation Act is on file with the Secretary of State. Additional information can be obtained by calling 1-800-332-4483. *West Virginia:* West Virginia residents may obtain a summary of the registration and financial documents from the Secretary of State, State Capitol, Charleston, West Virginia 25305. Registration does not imply endorsement.
Mary Alice Putnam Vandeventer
World War II Pilot (WASP, Class of 44-W-7)

YES, I would like my name to be listed on the Founder's Roster of the National WASP World War II Museum! Please note my contribution below. If your name is not printed correctly, please indicate correction here:

☐ $1,000  ☐ $500  ☐ $250  ☐ $100  ☐ Other $__________

☐ I'm enclosing a donation of $47 or more. Please list my name in the Founder's Roster and send me an autographed copy of Flying for Her Country.

☐ I'm sending a gift of $38 – symbolic for the number of Fly Girls who died while flying. Please include my name in the Founder's Roster.

☐ I am contributing but prefer not to receive the following gift item (s) or to be listed on Founder's Roster (please specify here): __________________________________________

☐ I am responding within 10 days with a gift of $25 or more and wish to receive the special deck of playing cards.

FROM: Ms Carol Doig
17277 15th Ave NW
Shoreline, WA 98177-3846

Please make your check payable to: National WASP World War II Museum & return in the enclosed, pre-addressed envelope.

To contribute via credit card, please check your gift amount above and complete below.

To contribute by Credit Card, select:

☐ VISA  ☐ MasterCard  ☐ Discover  ☐ American Express

Exp. Date: ________

Card #: ___________________________ Amt to charge $__________

Name as it appears on Card: ___________________________

Signature: ___________________________

Email address: ___________________________ Phone Number: (____) __________

National WASP World War II Museum, located at historic Avenger Field in Sweetwater, TX
P.O. Box 96679 ★ Washington, DC 20090-6679 ★ www.waspmuseum.org ★ (325) 235-0099
Located at Avenger Field
Sweetwater, Texas
Bell P-59A early jet at Niagara Falls, NY factory. Kay Gott and 2 unidentified men on ground. Women on wing are K. Bernheim, E. Hiester, R. Anderson and Anna Flynn.
October 10, 2008

Ivan,

Thank you for the copy of *The Eleventh Man*. It is the next book on my reading list and I am looking forward to the experience.

My daughter has just started *This House of Sky* and as it has been many years since I have read it, when she is done I will read it again. I am hoping to have some good Montana discussions with her.

Thanks again for the book, I appreciate it.

Rex Smith
Bell Kingcobra for Red Air Force to be ferried to U.S.S.R. through Alaska

Details in Photo

1. In the photo three rows of P-63's are visible.

2. Twenty planes in each row; difficult to count the row that is farthest from the camera.

3. Possibly sixty total P-63's assembled here at the Bell Factory, Niagara, New York.

4. All planes have two wing tanks. This enabled Russian pilots to fly from Fairbanks, Alaska to refueling airfields in Siberia.

5. 50 mm cannon replaced the 20 mm cannon at German trains.

6. Engine intake air scoop is located ahead of the cockpit, ahead of the dark escape to either the left or right.

7. Engine intake air scoop is located ahead of the cockpit, ahead of the dark escape to either the left or right.

8. Engine intake air scoop is located ahead of the cockpit, ahead of the dark escape to either the left or right.

9. #270468 airplane is closest to asphalt, but not the next three positions in consecutive number fields, as they were numbered.

10. Two men on the wings of planes facing the nearest liecockpit, ahead of the dark escape to either the left or right.

11. The radio box is visible behind the propeller hub.

12. The engine is behind the propeller hub.

13. Earlier model P-39 has a tail cone.

14. Tricycle landing gear retracted in place.

15. Two wheels under the wings.

16. Planes for Russia were all

17. Each plane had the Russian the fuselage half way between the wings.

18. Planes facing the nearest liecockpit, ahead of the dark escape to either the left or right.

19. Rounded Curtiss tail of P-39 is closest to asphalt, but not the next three positions in consecutive number fields, as they were numbered.

20. With the power cut, the air

Commander, Gen. William...
5. None have belly tanks. Planes equipped with belly tanks proved very unstable on takeoffs and landings. Many accidents happened during those crucial times.

6. Cover is over exhaust air vents behind cockpit door.

7. Cockpit door is on right side of the plane in first row closest to the camera. In the line of planes facing the nearest line of twenty planes, a door opening is on the left side of the cockpit, ahead of the dark engine exhaust air vent lines. This would enable the pilot to exit or escape to either the left or the right.

8. Engine intake air scoop is behind the plastic window at the rear of the cockpit.

9. #270468 airplane is closest, #270396 is next to it ... can make out #270 across the strip of the asphalt, but not the next three numbers. Obviously the airplanes were not taxied into their positions in consecutive numerical sequence. Possibly there are seventy-two airplanes on the field, as they were numbered consecutively as they came off the assembly line.

10. Two men on the wings of the nearest P-63 may be putting covers on the exhaust air vents, as you can see on the next plane, #396.

11. The radio box is visible behind the pilot's seat.

12. The engine is behind the pilot, a nine foot shaft connects the engine to the propeller.

13. Earlier model P-39 has a three blade propeller, the P-63 has four blades.

14. Tricycle landing gear retracted electrically and the nose wheel folds back under the nose nacelle.

15. Two wheels under the wings folded inward, thus making a sleek silhouette war bird in flight.

16. Planes for Russia were all painted olive drab color.

17. Each plane had the Russian symbol painted, a Red Star, outlined in white on each side of the fuselage half way between the wings and the tail.

18. 50 mm cannon replaced the 30mm cannon in the nose. Pilots reported the Russians aimed the plane at German trains, German supplies, and fired away.

19. Rounded Curtiss tail of P-39 has been replaced by a larger, sharper silhouetted Douglass tail on the P-63.

20. With the power cut, the aircraft had a "glide angle of a brick." Quote is from Air Transport Commander, Gen. William H. Turner, head of the Ferrying Division.
22. The Fall of 1944, from the factory to Great Falls through the northern border states, proved cold with unpredictable delays due to bad weather, storms, snow, sleet, and ice.

Kay: The first P-63 shows up in my logbook July 1, 1944. Transition to the P-63 was given at the factory to those pilots, men and women, who had previously qualified in the P-39. All pilots who went through Pursuit school flew the P-39. They learned at either Palm Springs, California, or later after the school was moved to Brownsville, Texas. Earlier model P-39 had a bad reputation with the ferry pilots, many accidents, the P-63 proved a more desirable plane to fly. Each ferry pilot carried the Pilot's Qualification Record book, a small green covered book that listed the planes each pilot was qualified to fly. If they were up to date they also held the record of each pilot's time in each type of aircraft.

Kay continues: Interesting enough for that August 1944 this pilot accumulated the most months of flying time on deliveries. That November trip in a P-63 from Niagara Falls Bell factory to Great Falls East Base took the most days to complete of any ferrying delivery done by this pilot -- reason: WEATHER.

Hazel's name in Chinese

李

Lee

月

Moon

英

Ying is English, heroine (pretty women)

translated by Frazer Wu
calligraphy by Chung Yu Wu
Top aircraft is a P-39
Bottom aircraft is a P-63
Source: Bell Factory Public Relations.
Foreword

The first women military pilots in the history of our country helped to ease the pilot shortage in World War II and then stepped quietly into the pages of history.

Historians of military aviation, digging into many documents previously classified as confidential or secret, will find the remarkable record of these women.

The need for aviators and airplanes during the war years of 1941 to 1944 taxed the nation's resources. Thus, the decision was made by the Army Air Forces to try an experiment—to use women pilots. When the plea went out through newspapers and recruiters and into the ranks of civilian pilots that the AAF was recruiting women pilots, 25,000 young women volunteered. Of these, 1,830 were accepted and 1,074 completed flight training, having relearned flying "the Army way." They graduated, receiving their wings.

Known as WASPs, an acronym for Women Air Force Service Pilots, this group was formed into two segments in September 1942. The first was known as WAFS (Women's Auxiliary Ferrying Squadron), and the second as WFTD (Women's Flying Training Detachment).

The WAFS, all exceptionally qualified pilots, were assigned directly to duties as civilian ferry pilots with the Ferrying Division, Second Ferrying Group, New Castle Army Air Base, Wilmington, Delaware. They were given no flight training other than that required to check out on military airplanes. They were led by twenty-eight-year-old and Vassar-trained Nancy Love, a pilot with an extensive background who was already familiar with military protocol and with the Ferrying Division of the Air Transport Command (ATC) in particular. She had been employed in the Operations Office of the Domestic Wing, Air Corps Ferrying Command, Baltimore, Maryland. Her husband, Major Robert M. Love, was Administrative Executive of the Ferrying Command.
The flight training program (WFTD), designated as the 319th Army Air Forces Flight Training Detachment, in Houston, Texas, was under the direction of Jacqueline Cochran, a world-renowned racing pilot. Graduates of this training school were to be assigned as ferry pilots within the Air Transport Command.

From this school a total of eighteen classes of women pilots graduated. One class entered training each month between November 1942 and April 1944. The last class graduated in December 1944, the month the entire program was deactivated.

In August 1943, or eleven months following the go-ahead for the WAFS and WTDs, the two groups were merged into a single organization known as WASP (Women Air Force Service Pilots). Miss Cochran was appointed Director of Women Pilots with Mrs. Love as WASP Executive with the staff of the Ferrying Division of the Air Transport Command.

The program for women pilots was initiated as a Civil Service program. The Commanding General of the Army Air Forces intended that it would eventually be militarized. This never happened, and the WASPs were disbanded as civilians.

This book, researched and written by Jean Hascall Cole, herself a WASP, documents the women of her class, the tenth class of women pilot trainees. One class entered training in August 1943 with 111 trainees. At graduation in March 1944, only forty-nine women received the coveted WASP wings. Sixty-one had been eliminated from the program or had resigned.

Mrs. Cole details the flight training accident in which one girl died and the deaths of two others while flying at their assigned duty stations.

Almost all living members of this class were contacted and interviewed by Mrs. Cole. It had been nearly fifty years between their WASP experiences and the time they reminisced with Mrs. Cole. This time period allowed the author to place Mrs. Cole's class, 44-W-2, within the context of the total WASP program.

The experimental purpose of the program ranked along with but subordinate to the purpose of releasing male pilots from routine and non-combat duties for combat service. In the fall of 1942, it seemed clear that every pilot released from home duty for front line duty was needed urgently.

The WASP program went through many changes during its twenty-eight-month existence. The Army, never having dealt with women pilots, had much to learn (and much to unlearn) about their physical capabilities, their adaptability, their aptitude and psychological make-up, but primarily about their talents as pilots.

It is the aim of this introduction to discuss several aspects of the WASP program which were altered as the program progressed. It may then allow the reader to place Mrs. Cole's class, 44-W-2, within the context of the total program.

Probably one of the factors most affecting the changes in the program was the amount of previous flight experience each girl had before she entered the WASP. The WAFS and the early classes of the WFTD had a great deal of previous flight time. For example, of the original twenty-five women pilots in the WAFS, one had as many as 2,627 flight hours. Their average flight time was 1,162 hours. This was a lot of flying time for someone who was no more than thirty-five years old. As the number of candidates with lots of flying time decreased, the requirements were slackened. Soon candidate cadets were required to have only a private pilot license, and eventually only a student pilot license with thirty-five hours of flight experience. Flight requirements never dropped below this level.

When the women pilots were first recruited for the WAFS they had to meet stiff requirements. They had to be between the ages of twenty-one and thirty-five, be American citizens and high school graduates, and pass the standard Army "64" physical examination administered by an Army flight surgeon. They had to have logged over five hundred hours of flight time and hold a commercial pilot license with a rating allowing them to fly aircraft of two hundred horsepower or more. They had to pass an Army flight check and each had to report at her own expense at Wilmington, Delaware, for the recruiting interview and flight test.

The women applying for the flight training school (WFTD) usually had less flight time than the WAFS. While they did not need to pass a pre-acceptance flight test or have a commercial license, they did have to meet all other criteria plus meet a height requirement of at least sixty inches.
As the flight experience requirement decreased, the height requirement was increased. In April 1943, it rose from sixty inches to sixty-two and a half inches. In the summer of 1944 it went to sixty-four inches.\textsuperscript{10}

The age minimum changed as the Army gained experience with its women pilots. The age requirement was reduced in August 1943 (the month class 44-W-2 entered training) from twenty-one years to eighteen years and six months (the minimum age for male pilots was eighteen years).\textsuperscript{11}

Other changes took place as the program progressed. A major one involved the location of the flight school. The training program started in Houston, Texas, at the Houston Municipal Airport, designated as the 319th AAFFTD (Army Air Forces Flying Training Detachment). With no military housing available, the trainees were billeted in local motels and bussed to the airport. This arrangement was totally unsatisfactory for a military flight training school.\textsuperscript{12}

The school was moved to Avenger Field in the west Texas town of Sweetwater. This was to become the only flight school in the history of United States military flight training to be devoted exclusively to the training of women flight cadets. It was known as the 318th AAFFTD. Those training at Houston were moved to Sweetwater, along with the aircraft, as rapidly as possible. The move began in February 1943 and was complete in time for the graduation of the second class in May 1943.

Only one class of women flight cadets graduated from a field other than Avenger Field. This was the first class, which graduated in April 1943 and received its wings in a ceremony at the military base at Ellington Field, Houston, Texas.

The class designations 43-W-1, 43-W-2, etc., indicated the year of graduation as the first numbers, followed by the letter "W" for woman pilot and then by a number showing the order of the class graduation within the year. Thus, Class 43-W-1 was the first class of women pilots graduating in 1943. Class 44-W-2 was the second class of women pilots graduating in 1944.

The types of aircraft used for training changed considerably over the period of the WASP program. In the early phases of the program, military training aircraft were in short supply and the women pilots flew civilian-type aircraft. As training planes became available, and the curricula at Avenger Field changed, different training planes were required.

The first class started with a wide variety of light civilian aircraft similar to the military liaison (L) aircraft: L-3 Taylorcraft, L-4 Pipers, L-5 Stinsons, etc. Initially all training was to be given on these liaison planes, with transition to the military basic trainers, BT-13 Vultees, at the end of the course. While the curriculum called for instrument training in a Link Trainer, there was no Link Trainer available.\textsuperscript{13}

As an example of this hodgepodge of light aircraft, twenty-six different types of aircraft were assigned to the 319th AAFFTD in Houston. With the move to Sweetwater, the liaison aircraft were eliminated and the types of aircraft more closely matched those of other military contract pilot training schools. Fairchild PT-19s were used for fifty-five hours of primary training, Vultee BT-13s or 15s were used for sixty-five hours of basic training, and North American AT-6s and the twin-engine Cessna AT-17s were used for sixty hours of advanced training.\textsuperscript{14}

The length of the training program also changed. The program designed for class 43-W-1 called for completion within sixteen weeks. The trainees were to be given 115 hours of flight training, 20 hours of instrument training in a Link Trainer, 180 hours of academic instruction, and one hour per day of physical training. By January 1943, the program was extended to 22½ weeks, with 170 flight hours and 230 hours of ground school. In April 1943, starting with Class 43-W-6, the program went to twenty-four weeks, with 180 flight hours and 30 hours of Link instruction. In August 1943 the ground school program was increased to 406 hours.

This constant change in the training curriculum approached a leveling off in the middle of 1943. The start of this new training plan began with Class 44-W-1, which entered training in July 1943. The changes were made slowly and it was not until Class 44-W-5, entering training in November 1943, that they were complete.\textsuperscript{15}

Class 44-W-2, the class highlighted in this book, was receiving training during this time of changes. Probably the most important of these changes were the following:

- Increase in training period to twenty-seven weeks
- Increase in flight program of instruction to 210 hours
- The Boeing Stearman PT-17 open biplane was phased into primary instruction after Class 44-W-2, which used the open low-wing PT-19 airplane
- Concentration of instrument flying into one phase
- Elimination of all twin-engine flight training
- Increase in navigation (cross-country) training
- Increase in ground instruction
Trainees were to move on to the advanced trainer, the North American AT-6, immediately upon completion of primary training. The basic flight trainers, BT-13 or BT-15, were used for instrument flight instruction after training in the AT-6. Then the final phase called for a 2,000-mile cross-country flight made in the AT-6.

The number of cadets entering training varied from a low of twenty-eight to a high of 150 in any one class. The high point in terms of the number of cadets who were in training at any one time was reached at the graduation of Class 44-W-2, when 523 students called Avenger Field home.

The recognition by the AAF of the piloting capabilities of its women pilots changed almost constantly. From the very beginning the WAFS were proving their ability to fly much more complex and faster aircraft than the liaison-type airplanes to which they had been initially assigned. As the graduates of the training school (WFTD) joined them, this trend continued. The first five graduating classes and part of the sixth (43-W-6) were assigned to the Ferry Command at one of four bases: Second Ferrying Group, New Castle Army Air Base, Wilmington, Delaware; Third Ferrying Group, Romulus, Michigan; Fifth Ferrying Group, Love Field, Dallas, Texas; Sixth Ferrying Group, Long Beach, California. After that, graduates went to various commands and Air Forces.

The high point of WASP utilization by the Air Transport Command was reached in April 1944, when 303 WASPs flew for the ATC.

The AAF tested the abilities of WASPs to serve as pilots in jobs other than ferrying. To do this, an experimental program, initiated in the summer of 1943, was to determine if they could tow targets. During this program, fifty WASPs from classes 43-W-3 and 43-W-4 were sent to the Third Tow Target Squadron, Third Air Force, Camp Davis, North Carolina. Here they were trained to fly missions for anti-aircraft gunnery practice, flying primarily dive-bomber airplanes (Douglas A-24 Dauntless and Curtiss A-25 Helldiver). These missions required the gunners to track the aircraft, to fire at targets towed behind aircraft, and to use searchlights to search for, and track, aircraft flying at night.

The women proved so capable at the tow-target missions that it was decided to try WASPs on other, similar types of flight missions. Thus, during the fall of 1943, WASPs were tested on other aircraft and on flying primarily tow-target missions for air-to-air and ground-to-air gunnery training.

They were sent to transition training in Boeing B-17 Flying Fortresses, Martin B-26 Marauders, and North American B-25 Mitchels; to B-26 copilot training; and to the highly classified program at Liberty Field, Camp Stewart, Georgia, to fly drone aircraft by radio-control for live-fire practice by anti-aircraft gunners.

The B-26 training at Dodge City, Kansas, involved three WASP classes. Starting in October 1943, a total of fifty-seven WASPs entered this special training. Of these, thirty-nine graduated. This included WASPs from Mrs. Cole's class, 44-W-2. Of the twenty who entered from 44-W-2, seven were reassigned to other duties at other bases, while thirteen graduated.

These WASPs at Dodge City proved themselves capable pilots in this fast and heavy bomber, as affirmed by their commanding officer, Col. Charles B. Root, when he was interviewed by the station historian:

We recently had at this station a group of Women's Army Service Pilots for training in the B-26, and we feel that it was a reasonably successful experiment. These women displayed a most cooperative attitude and were enthusiastic and tried harder than the normal student.

Another comment came from Major John D. Todd, Commandant, Officer Student Detachment:

We have found them [WASPs] to be very anxious and willing to learn. I would say their eagerness exceeds that of the average officer student. From the standpoint of their ground school work, we have found them to be very conscientious with the result that the average grades of the WASPs in the ground school exceeds the ground school overall average.

The flying training program consisted of seventy-five hours of flying in the B-26, with forty-five of these as first-pilot training and twenty hours of Link Trainer instruction.

B-26 copilot training was initiated early in August 1944 at three Army Air Fields: Kingman AAF, Arizona, Harlingen AAF, Texas, and Laredo AAF, Texas. All WASPs at these bases had to be at least five feet four inches tall, have experience on twin-engine aircraft, and hold an instrument card.

Another course of instruction in which WASP Class 44-W-2 participated was an advanced course in instrument training at Sweetwater. Graduate WASPs (242 of them) returned to Avenger Field to qualify "for an instrument rating and receipt of Form 8 (White) as prescribed by AAF Regulation 50-3." The course included fifty-five hours "under the hood" or practice instrument flight time; fifty-four hours of ground school; and nineteen hours of instrument flying in a Link Trainer.
The uniform worn by women pilots (WAFS, trainees, and WASPs) was another item that changed during the program. The WAFS wore a uniform of their own choosing. It was of gray-green material and included slacks, skirt, and a jacket with padded shoulders and patch pockets. These were worn with shirts and ties of tan broadcloth and an overseas cap. The arm patch of the Air Transport Command was on their left sleeve. Their wings were those of Air Transport Command Service Pilots.26

The women flight cadets of the first classes (WFTD) had no official uniform. They wore what civilian clothing they desired; there was, however, a restriction against wearing cowboy boots. When the first class graduated, some type of uniform was appropriate. It was decided that each girl would purchase, at her own cost, tan cotton gabardine slacks, a long-sleeved white shirt, and tan overseas cap. This became the "trainees' dress uniform" until February 1944. After graduation these early WASPs wore combinations of Army "greens" or "pinks" in slacks and shirts for a flying uniform. No insignia was worn except wings. Civilian clothing was worn for non-flying activities.27

There were no official wings for the graduates of the early classes. Unofficial wings, redesigned from Air Corps pilot wings, were provided as a personal gift from Miss Cochran to each graduate. These were unique to each class from 43-W-1 through 43-W-7. The shield in the center of the wings was polished flat and the class number was inscribed on it, i.e., W-1, W-2, etc. A scroll above the shield carried the detachment designation: 319th for the first two classes, and 318th for the remainder.28

With the graduation of Class 44-W-1 on February 11, 1944, graduates were provided with the new official WASP uniform of Santiago blue. The dress uniform (worn at graduation) was a straight skirt, white shirt with black tie, hip-length belted jacket, and beret-type hat. The insignia included the great seal of the United States worn centered on the beret, the new WASP wings, and on the lapels the crossed wings and propeller and the word WASP spelled out in gold. The winged arm patch of the Army Air Forces Headquarters and Commands was worn on the left shoulder.

The official wings designed for the WASP were slightly smaller than the pilot wings, and a diamond or lozenge replaced the shield in the center of the wings.29

Class 44-W-2 was the second class to receive the WASP wings at graduation.

The physiology of women in flight had concerned many officials. In the beginning, for example, WAFS had been forbidden to fly during menses and pregnancy.30 By August 1943, while the pregnancy rule held, the other was subject to the decision of the individual WASP herself, who could refrain from flying only after consulting with her WASP squadron leader or the group flight surgeon.31

Attitudes toward mixing of the sexes went through some well-deserved changes. WAFS were first forbidden to fly copilot with male pilots (or pilot with male copilots). Likewise there were to be no mixed flight assignments or mixed crew assignments.32 These rules were quickly rescinded and WASP pilots were given assignments like those of any other pilots.

The militarization of the WASPs, and their training to be officers, was a subject of continuous concern with the Army Air Forces Headquarters and with Congress. Anticipating that WASPs would be militarized, the ground school curriculum at Avenger Field, in the revision of May 1944, contained such new subjects as officer indoctrination training, plus duties and responsibilities of an officer.

Likewise, in April 1944 a special course was established at the Army Air Forces Tactical School in Orlando, Florida, to provide basic military instruction to WASPs who had already graduated from Sweetwater. Selected WASPs, including many from Class 44-W-2, were sent to this school for a three-week course in training to be an Army officer.33

The varied duty stations and flight missions assigned to WASPs would be impossible to recount here. Like all military personnel, the women of the WASP were not stationary. They were moved by the military as they were needed. This certainly included those of Class 44-W-2 as they spread throughout the country to duty in all stateside Air Forces and commands including the Air Transport Command.

Types of flying assigned to WASPs included ferrying of all types of airplanes from liaison through bombers; towing targets for anti-aircraft and air-to-air gunnery practice (both tracking and live fire); radio control; drone flying; smoke laying; simulated bombing attack flights; instrument instructor; instrument check pilot; instrument safety pilot; administrative flights; cargo flights; scheduled air-transport pilot; simulated strafing; and engineering flight testing.34

In the course of their duties thirty-eight WASPs lost their lives. The WASP program terminated nine months before the end of World War II. In a press release issued by the War Department, Bureau of Public Relations, Press Branch, entitled "AAF to Inactivate WASP on December 20," the reasons were outlined.
Unless there are unexpected and much higher combat losses in the air war over Germany, the Army Air Forces will inactivate the Women Air Force Service Pilots (WASP) on December 20, 1944. General H. H. Arnold, Commanding General, announced today.

The decision to release volunteer women pilots from further service with the AAF was based on present indications that by mid-December there will be sufficient male pilots available to fill all flying assignments in the United States and overseas.

General Arnold said:

"I am proud of the WASPs and their record of skill, versatility and loyalty. They have done outstanding work for the AAF, even exceeding our expectations when the program was begun in 1942.

"The WASPs were accepted as volunteers at a time when the nation faced total mobilization and when a pilot shortage would have imperiled the mission of the AAF. They have been as much an integral part of the AAF as their civil service status would permit and have not only performed highly essential service but also have established previously unknown facts concerning the capabilities of women in highly specialized military flying jobs. This knowledge will be of inestimable value should another national emergency arise. Together with the women flyers of our Allies, the WASP have proved that women have the ability and the capacity to perform the most difficult jobs in flying."

At the time of their deactivation, there were 916 WASPs on duty with the AAF at the following commands and headquarters:

- Hq. AAF ................................................... 1
- Training Command .....................................620
- Air Transport Command ..................................141
- First Air Force ...........................................16
- Second Air Force .......................................80
- Fourth Air Force ........................................37
- Weather Wing ............................................11
- Proving Ground Command ................................ 6
- Air Technical Service Command .........................3
- Troop Carrier Command ..................................1

When the WASP program was deactivated, the following conclusions were reached as a result of the AAF's experiment with women pilots:

1. Women can meet standard physical criteria for flying and can be trained as quickly and economically as men in the same age group to fly all types of planes safely, efficiently, and regularly.

2. The best women pilot material is in the lower age brackets, down to eighteen years.

3. Women pilots can release male pilots for other duties.

4. Physiology peculiar to women is not a handicap to flying or to dependable performance of duty.

5. The flying safety record of women pilots approximates that of male pilots in the same type of work.

6. Women pilots have as much stamina and endurance and are no more subject to operational or flying fatigue than male pilots doing similar work. Women pilots can safely fly as many hours per-month as male pilots.

7. An effective women's air force could be built up in the case of need from the young women of our country.

The WASPs were sent home, never again to fly for the country they had served so ably.

In 1949, WASPs were offered commissions in the newly formed United States Air Force. The rank each was offered was based on the time she had spent in the WASP. Accepting these commissions, 121 ex-WASPs found their flying training led them to aviation support and administrative military occupational specialties—but not to flight assignments. Nine remained in the Air Force for twenty years to retirement. Thirteen ex-WASPs joined other services: U.S. Navy, five; U.S.A.A.F. Nurse Corps, four; Royal Air Force, one; U.S. Army, two; U.S. Marine Corps, one.

In 1977 Congress finally acknowledged that WASPs had indeed been military personnel. They were issued honorary discharges and declared veterans.

When women were admitted again to flight training within the Air Force, thirty-two years after the WASP program had been disbanded, the Air Force was surely building on the success of the WASP program and the heritage the WASPs had established for all women in aviation and aerospace.

Notes

Most of the reference material listed below may be found either in the Air Force Museum, Research Department, Women Air Force Service Pilots Files L2, Wright-Patterson Air Force Base, Ohio, or in the WASP Collection, the Library Archives, Texas Woman's University, Denton, Texas.

"I had a friend doing graduate work at Smith," she said, "so I would drive over to see her and spend the night. Once, when I was coming back, I passed a little roadside school where they were offering flying lessons for under five dollars. I was saying disparaging things to myself about it and then about five miles beyond it I said, 'Are you afraid to go up?' I turned around and I went up in this little airplane—it was an open cockpit biplane—and I saw that the fields were very different from up there. I didn't feel at all afraid. I didn't feel the resting sensation and also, intellectually, it appealed to me. I liked the experience.

Then I heard about this flying school, I don't know how, and I saw this pretty little lady, Nancy Love, who had gone to Vassar. She was the wife of the owner. I found out it would cost two thousand dollars. I thought that would be nice but didn't know where it would lead, so I got another job as a research assistant at Wellesley. As the war began to heat up in Europe, the Civilian Pilot Training Program came on line. I thought, 'That's something I can do, and it's free.' As a college graduate, Ruth had only to pay a registration fee at Northeastern University. "I got into their CPT program and got my private pilot's license—free.'"

Later, she joined a flying club, accruing flight time at about three dollars an hour. "Of course, I didn't think I would ever get five hundred hours, but then I got word that the WASP were getting organized and that the requirements were much lower. I somehow managed to get an interview for WASP candidates with a lady in a hotel, and I survived the interview."

Mary Strok also got her training through the CPT program. "I started flying when I was sixteen years old, and I was deeply influenced by my brother Michael. Mike was always interested in flying. I think I was a sophomore at Cornell when they started CPT. Mike suggested that I try for it, so I did. I barely passed the physical, because they told me I had to be five feet two inches, and I was only five feet one and three quarters. But the doctor was very kind and said, 'I can see that you really want to get in this program. I suggest that you stretch yourself for several days, then come in early in the morning before you do anything. I'll measure and I'm sure you'll make it.'"

She passed the physical, went through the program, and emerged with a private pilot's license. Then she began flying Piper Cubs in Ithaca, New York.

"Shortly afterward, I read that famous article in the July 19, 1943, issue of Life magazine about the WASP program. I just couldn't believe I might be eligible, but I applied. Ruth Petry, who applied at the same time, went down to New York with me by overnight train. It was an adventure for me, a little hometown girl who never left Ithaca, never went anywhere. We were interviewed by Jackie Cochran. I haven't the slightest idea what I said. I'm sure I babbled, and I went home crestfallen. Of course, she would never take me—why would she? Then I got a letter saying I was accepted, starting in September 1943.

"I still couldn't believe it. I thought they made a mistake, but I didn't want to call because I was afraid they would check the records and find I really hadn't done it."

Other women got into flying in less formal ways, or, without the help of CPT, by more expensive or circuitous routes. Really, the members of Class 44-W-2 had only one strong similarity: they wanted to fly. Some came from flying families; both Ruth Woods and Frances Smith had fathers who were pilots. Fran's father was an early airmail pilot and an instructor during World War I; that was one reason, she told me, that she took up flying.

"After the war," she says, "my father became a commercial pilot flying the airmail in the old Jennys. Then, in 1929, the government asked him if he would go to China to start an airmail service there—which he did, with the help of other people. After three years or so, one of the companies (I think it was Trimotor Ford) asked my father if he would demonstrate a plane to General Chiang Kai-shek. If the general would buy it, my father would get a commission.

"Dad said, 'Sure.' He took the general and his wife up, flew them all over Shanghai and around the country, and told them what an advantage it would be to have an airplane in China. When he brought it in, the general said, 'I'll tell you what, Mr. Smith. I'll buy the plane if you'll fly it.'

"That's how my father became personal pilot for General Chiang Kai-shek, and he continued that for three years. After six years in China, my father decided that my two brothers and I should learn something about the United States, so we came back." Fran and her family stayed in California, but her father kept up his connections in China. During one trip, he contracted typhus; he died in China in 1938. Although his love of flying was one reason Fran took it up, she says, "He never knew I went into flying."

Fran started flying before the war, in Monrovia, California, just after her high-school graduation. When World War II began, she had only had about ten hours. "I had soloed, and my brother had joined the Air Force. I thought to myself, 'He's not going to learn to fly before I do.' At the same time, I saw the article in the Los Angeles Times about the WASP, so I went out to Blythe, California, and got my fifty hours (in a flight school) and then applied to the WASP. I was supposed to start in the August class, but they had overbooked that, so they sent me a wire saying to hold off until September.

"I remember going down to Los Angeles to get the train to Sweetwater. They wouldn't let me on, because all the military personnel were waiting to get on. I said, 'But I've got my orders.'"
place they needed to go. We loaded our belongings into its spacious interior and hung on as the monster lurched into gear and rattled its way along the highway to our base, Avenger Field.

"Avenger Field," a magic name for all of us hopefuls, certainly lived up to our expectations. The roar of the planes, the low, wooden barracks so close to the flight line, the mess hall, the huge marching field—and the sand—everywhere, the sand. As Lorraine Zillner says, "It was so wonderful. We all were bright-eyed, excited; it was all so new to us. The routine, the militarization, the way we had to march to classes, and the hours we had to keep—most of us weren't used to that."

One of the first things the officers did (which will be familiar to anyone who was ever in the Air Force) was to line us up and tell us to look at the person on either side of us. We were then told that both of those people would wash out. Of course, someone would be looking at you from each side. We were supposed to be impressed that this was a very difficult program. More than half did wash out, but Sadie Hawkins was not at all impressed. "Remember," she says, "when they told us to look on either side of you, because probably both of them would wash out? I just thought 'Poor things.' It never occurred to me that I would wash out."

After an orientation, we were assigned to our barracks, called "bays." The bays were a series of one-story rooms, two rooms connected by a smaller room with showers and toilets. Six girls were bunked in each room, so twelve of us shared the two showers and two toilets. In our bay were housed Henderson, Harris, Hascall, Hawkins, Heckman, and Henderson. Only one washed out, "Hank" Henderson. None of us ever heard from "Hank" again, to my knowledge. The five who remained became great friends and remain so today. Kate Lee Harris and I, Jean Hascall, always had a difference of opinion about not really liking men. I really had a thing about men. I didn't like being around them. They spoiled my day, so, in primary training, I knew I'd have to wait to hear her breathing deeply in sleep before I would surreptitiously open a window. We still share a room together at reunions, and somehow the problem has disappeared.

Anne Berry remembers the Saturday morning inspections. "What eager beavers we were when we first got there," she relates. "All these regulations—you were supposed to have your sheet turned down two hands' width over the blanket and you were supposed to have your blankets so tight that they could bounce a quarter on them. I remember the first week we were under our beds, tightening the sheets—and then, in three weeks' time, we were trying to see how much we could get away with.

"I can remember, though I didn't drink at the time, that on Saturday morning the girls would be out in those little alleyways between the two rows of barracks, burying all their liquor. They had learned they couldn't hide the bottles inside the barracks. Then, they'd put little sticks in the ground to mark where they had buried them, so they could dig them up again. We had these little cemeteries and tombstones, showing where people's liquor was buried.

"I also remember Ruth Adams—this tickles me to this day—Ruth Adams, who in her later years became a psychiatrist. Our shoes all had to be placed under our bed with the toes facing out toward the center of the room. For some reason, Ruth never could get this—she was absolutely brilliant, but she couldn't get this through her head, so it was somebody's duty, always, to check Ruth's shoes. She invariably put them with the heels pointing out, which meant we might get a demerit and not get off the post that weekend. Somebody always had to check Ruth's shoes!"

Anne recalls the strenuous physical training we received. "I can remember, with fondness, the PT instructor," she laughed, "Lt. William LaRue. He was a nice guy and he put a little fun into what we were doing. We went through our routine and our drill was what it should be; he didn't let us get away with anything, but he would inject a little humor into it. I remember that we had to do something called side-straddle hops and these would go on for a few minutes, and then he would stop and say, 'Okay, pull 'em up,' and everybody would. [In those days we still wore brassieres.] Everybody would reach in and haul up their bra straps and then we would go on.''

The story about Ruth Adams and her shoes reminds me of Ruth’s attitude toward primary training. Ruth was indeed very bright, with an analytical mind. Petite and very attractive, she was smart enough to realize, right from the start, that there would be a lot of washouts. She was going to figure out a way not to be one of them. "I sensed very quickly," she told me, "that it was going to be a highly competitive situation. I remember thinking, if they’re going to wash a bunch of us out, they can’t tell who is really good or bad. They might be able to recognize the very outstanding upper 10 percent, and they could probably pick out the really bad fliers—uncoordinated, bad judgment, et cetera—but the whole middle mess of us, they would not be able to discriminate among all. They were going to do it on personal prejudice. I have my own prejudice, about not really liking men. I really had a thing about men. I didn't like being around them. They spoiled my day, so, in primary training, I knew I'd have to watch myself. I set out to comb my hair right. You know: I must not in any way offend anybody, any of the men who had the responsibility for failing or passing me, but I had a very nice instructor, Ray Booth. A lovely man. Really nice.''

Kate Lee Harris, Marge Johnson, and I also had Ray Booth as an instruc-
tor. A tall, heavyset Texas rancher, Ray wore cowboy boots, spoke in a Texas drawl, and went "all out" for his students. An excellent pilot, he was a joy to fly with. He and his wife were kind enough to invite all four of his students to Christmas dinner at their home. It was such a treat for us that we still talk about it.

Ray Booth really saved me when I went up for my first check ride. I was unlucky enough to get an Army Lieutenant named Pinkston (not to be confused with Flight Commander Harl Pinkard, a delightful man). Somehow, I thought I could pass the test best by being real tough. I started manhandling the plane around and he failed me. Ray Booth went back and talked to him and found out that Pinkston thought I wasn't a very "smooth" flier. Ray took me up and spent over an hour with me showing me just how to fly for Pinkston. The next time I passed. If it hadn't been for Ray Booth, I never would have graduated. Pinkston had a reputation for being a tough check pilot. I think he washed out a lot of students; most of us remember him with something less than affection.

Ruth also had a bad ride. "At one point," she says, "I had heard this examiner saying how you had to keep turning your head to left and right—keep your head on a swivel at all times. I went up on a check ride with him and I took him too literally and I was turning this way and that and, by God, he failed me. Just because of that. Then I realized I had made a mistake, and I should have used my judgment. You know, if you fail your check ride, the second ride is just a routine, then they kick you out—but Ray Booth stood up for me and said, 'No, she's really a good flier.' This very same man had to take me up again. This time, I was very calm, and very smooth, and it was a calm day. I still remember he had me doing figure eights and it was all as smooth as silk. When we finished our check ride he commented, to somebody, 'She's a honey,' so, I felt, that was it. I passed. But that was the closest I came to not making it.'"

Ray Booth contrasted sharply to an instructor shared by Nellie Henderson, Anne Berry, and Ann Craft. Nellie describes her instructor as a "mean, mean blond. He was tall, thin, and thought he was God's gift to women. He was the one who beat your knees."

In dual-controlled aircraft, when the instructor shoved the control stick back and forth rapidly, the control stick in the student's cockpit would hit her knees. "Yes, I got the stick beatings. He drove me crazy. He was determined that we would be shatterproof when he got through. Well, here we were going on like this, and he was fussing at me and he said, 'Take your feet off the Goddamn rudders.' I thought, 'My feet are on the floor.' He said it again: 'I said, take your Goddamn feet off the Goddamn rudders.' Well, I just took both hands and pulled back the throttle so it was dead calm, and put one foot up, and the other foot up, and yelled, 'I haven't got my feet on the Goddamn rudders.'"

"I thought, 'Well, this is it, I'm washed out,' but he didn't say a word. I just flew back. He was great to me from then on. He was marvelous. He was one of my best instructors, finally. Loved me. I loved him.'"

"I'm not sure I would have been as forgiving as Nellie. I saw the inside of it, knees and they were both black-and-blue. Anne Berry remembers him 'tall; he really looked like a cowboy. This guy could have fit into a Cl Eastwood movie—no trouble at all. What his philosophy was in instructing don't know, but he could be pretty mean. I can remember he would take the stick and whip your knees with it. Then sometimes, if you weren't doing something he wanted you to do, he would take the earphones and hold them over the side of the open cockpit. The wind would come whirring through these earphones and right into your ears, which could be pretty unpleasant. Happily have forgotten his name.'"

Ann Craft was his other primary student. Ann was a beautiful girl, and some reason or other we all thought she had been a beauty queen at Ohio State University. It was just common knowledge. When I interviewed Ann, I asked about that and she said, "No, no," I said, "You mean it wasn't true? That what we all thought. Where do we get these ideas?" She answered, "I guess because I was so beautiful!" and she laughed uproariously. She actually graduated from the University of Nebraska in education. Because she also had a "mean" instructor, I asked if she also got the "stick beatings."

"I don't think he did that to me," she answered. "I was awfully sweet and I don't think anyone would have done that to me. He used profane language—screamed and yelled—there was nothing you could do about that; and he was very strict, but did you know that all of his students graduated? He could believe that I would graduate. He made me think that I was his worst student, and how I stayed in just amazed me all the time, un-flew with some of the other girls. Then I realized I was better than some them.'"

Jean Moore switched instructors three times in primary training. "I first instructor," she told me, "drank too much and sometimes he'd show for work and sometimes he wouldn't. They finally got rid of him and gave me the mad Russian, Emilie Cernich. He was very verbal and he thought I was great that he sent me up too early for my Army check ride, which I bust. Then he was really verbal. He nearly had a fit about it, and he gave it to me in the ready room. Mr. J. Pollard heard him and came over afterward and said would give me Mr. J. R. Smith, who was an instructor to instructors. Sir was great. He taught me aerobatics and all kinds of stuff. I never had any problems with check rides after that.'"

Most of the people I talked with were enthusiastic about their instructor.
there, where I crashed. A couple of people were in there and they said, 'What happened?' I answered, 'I just tore up one of your little airplanes down there.' They replied, 'Oh? How are you?' I said, 'I'm just fine.' Then they said, 'Well, the best thing for you to do is to take that plane out there and shoot a few landings.' I said, 'Fine,' and I went out and was merrily going around having great fun when they came on the radio and they said, 'RV 222, please land and report to the hospital.'

'They'd seen the plane by then, and they told me, 'You could not be able to fly again.' I answered, 'But I feel fine. I've got a little tiny bump on my head.' They sent me over to the hospital and kept me over there even though I insisted there was nothing wrong with me.

'Well, the sweet old gal who ran the cafeteria knew I liked avocados, and she went through the salad for the day and picked out all the avocados and brought them over for me to eat. I finally got out by that night.

'Later, when I told them I didn't know what was wrong with the plane, they told me that it was maintenance. Of course they wouldn't now, but they admitted it then. A mechanic had left an oily rag in the engine. That was the story, and that was my only problem.'

Nellie was fortunate to have survived that accident. All of her baymates went over to the 'cemetary' where they dumped the crashed airplanes, and when we saw what was left of that poor PT-19, it was hard to believe that she had walked away from it. Her story was true—nothing was left except that rear cockpit. Looking at that smashed airplane sobered us a bit, but if I remember correctly, we sang a chorus of 'Blood on the Cockpit' to regain our usual jubilant spirits. 'Blood on the Cockpit' was sung to the tune of 'Blood on the Saddle,' a Western ditty popular at the time. The song ended up, 'Fifty the pilot, all bloody and gore, for she won't be flying the pattern no more.' It was, of course, all bravado, but such a song was okay to sing as long as Nellie was unhurt. I really think we were more careful after seeing that airplane.

Lourette Puett, whose primary instructor was Dotty Swain, had a rather close call in the PT. 'I went up once on a solo flight and forgot to put my seat belt on. I was practicing spins. As I pushed the stick forward and came out of the spin, I rose up out of my seat and went over the canopy, but just then the plane straightened out and the wind blew me back in my seat. I was so scared, I don't think I ever told anyone. I probably wouldn't have graduated had anyone known. I'll tell you, even on airplanes, I don't undo my seat belt now. I think it was a very good lesson.'

Phyllis Tobias's instructor in primary training was named Jenny (Jenny Gower, 44-W-5). 'I don't remember her last name but she was a friend of Margaret Wakefield [one of Phyllis's friends]. I'm sure if it hadn't been for that
plane and took off. "The first thing that happened," Gini began, "was that the flaps got stuck in the full down position. The major said, 'Oh, my God.' I said, 'Relax, Major, this happens to us all the time. No big sweat.' The next thing that happened was, an engine went out. I forget whether the right or the left. Now we were in big trouble. We had full flaps, one engine, and were over a heavily congested area. I called in for an emergency landing. The tower, for some reason, became excited and instead of saying 'Clear the pattern,' said, 'Clear the area.'"

By this time, Gini told me, the major had already traded places with Doris in the copilot seat, but he said he wouldn't interfere. It was a scary situation and the tower called for air silence. "It was dead quiet," Ginny said, "and then this voice came over the microphone, 'A woman's place is in the home.' I kid you not. It was hilarious! Well, really it wasn't so funny! We were coming in—we had to anyway because the major didn't have a parachute. The next thing was, the major said to me, 'Just let me land it.' I said, 'One thing I can do well, is land this thing.' 'I'm sure you can,' he says, 'but just let me do it.' I said, 'If you goof this landing, I'll never forgive you.' He said, 'All right.' Then he proceeded to make a perfect landing. What happened then was, in all the confusion, he hopped out and no one knew he was aboard. For weeks, I got compliments on my perfect landing. I hadn't made the damn thing and I couldn't say I hadn't!"

The plane they were flying was the UC-78, the 'Bamboo Bomber.' "These were old planes," Gini told me, "just hanging on by a thread. We had to sign the paper to say whether or not they could go on for a few more hours. You hated to say okay, it'll be all right, and then some cadet gets killed because it's not okay. Not a very happy task."

One other time, Gini told me, she and Doris were testing another UC-78. Just as they were taking off, a big, black cloud of smoke came out. That was pretty scary, she said. "We were too far over the field to land," she commented, "and we had to keep going. I heard yelling over the intercom, 'You're on fire, you're on fire.' I said, 'Yes, I can see the smoke.' I was just circling to come in and land, and I knew the mechanic had not fixed the oil line as he was supposed to do! When I pulled back the throttle, the smoke stopped. We landed and the crew chief came up kind of white, and he said, 'What happened?' I answered, 'I'll tell you what happened. You didn't fix the damned oil line!' He said, 'I did.' I reached across the wing and it was just slick with oil. I wiped up a whole handful of oil and smeared it across his face. I was so mad!'

"What's that?" I asked. 'He hadn't fixed the oil line.'"

"I made a comment that it was as bad as sabotage.

"Well," Gini replied, "it was just that they were overworked, underpaid, and underappreciated. These guys were in the military and they couldn't keep up with it, but they had no right to put it back on the flight line!"

"We had some harrowing experiences, though. More often than not, the crew chiefs hadn't fixed things. They loved to fly as copilots, though, so when they wouldn't go up with you, you knew damned well that you didn't want to take that airplane up!"

Two other WASPs, Leona Golbinec and Kate Lee Harris, did not receive a very warm welcome when they arrived at their base in Dothan, Alabama. Leona told me, "Two WASPs from an earlier class, Buzz Stavrum and Donna Spelllick, were already there. When Kate Lee and I came in, adding two more WASPs, the fellows were really upset about it. They already resented Buzz and the other girl flying. We were flight engineers. Dothan was an advanced school training base, so after the one-hundred-hour checks, or when the cadets would wreck a plane, we would take it up and test it.

"Some of the fellows resented it because that was what they had been doing and we took their jobs. Then they had to go into the fighting and they didn't want to go, any more than our instructors wanted to go into the fighting war when we disbanded. One pilot was checking me out and he was really giving me a hard time because he was going to have to give up his job. As we were taxiing along, I kept saying, 'Uh, uh,' and he said, 'I'm talking,' and he ran into another plane. This other plane was paying no attention, because we were in the wrong, definitely. I could see that propeller—it cut into our AT-6. It made quite a mess of our plane. They were both AT-6s. We were both on the ground, thankfully."

"What did he say about that?" I asked.

"Nothing. That was the last day he flew there. I never saw him again. We spent all our time at Dothan until we were deactivated. Later, two other WASPs came, Patty Pettit and Mary Ann Walker. Mary Ann started going with the Colonel, and after they got married everything changed. We were accepted then. We were treated very nicely. We lived in the nurses' quarters and had all our meals in the officers' mess. We had a nice time there. It was just like a country club."

Kate Lee and Leona were assigned to engineering testing. Kate Lee told me that one day she was out flying and saw a big storm approaching the field. "I called the tower," she said, "and asked if they were calling off flying. The male officer in the tower in a very nasty tone said, 'Why would we call off flying?' Sort of like, what's the matter, you female? This storm was getting closer and closer to the field so I thought I would go in whether they'd called off flying or not. By the time I got to the field this terrible dust storm hit (and in the meantime they had called off flying). Just as I came in, the wind hit the plane and
One line of the song advised, "If you have a daughter, teach her how to fly." I think we have taught our daughters how to fly, both in the literal and the figurative sense, and they are flying higher than we ever could. And our granddaughters and our great-granddaughters, I can only assume, will fly even higher—perhaps they will even reach the stars!

Glossary

**Aeronca**
A small, high-winged fabric plane made by the Aeronca Company, similar to a Piper Cub. The earlier model was called a Champion and featured tandem seating. A later model was called a Chief and offered side-by-side seating.

**Auxiliary Field**
A field close by a large airport, usually with a paved runway, used for practice flights.

**B-4 Bag**
Canvas luggage that converts to a hanger-type bag.

**Barnstorming**
Flying around the country, stopping at small airports to present air shows or to give passengers rides.

**Base Leg**
Part of a flight's landing pattern; a short leg lying at right angles to, and downwind from, the landing strip. The base leg follows the downwind leg and precedes the final approach to landing.

**Bays**
Rooms within the barracks where WASPs were housed at Avenger Field. Each bay housed eight women.

**Beam**
A radio sound made up of a combined A (dot-dash) and N (dash-dot) Morse code sound, making a solid hum, which led a pilot to the airport runway.

**Biplane**
An airplane with double wings, one above the other.
**Blackout**
Unconscious state resulting from blood draining from the head to larger muscle groups in the lower body—caused by excessive “G” (gravity) forces experienced during some aerobatic maneuvers.

**BOQ**
Bachelor Officer Quarters

**Buzzing**
Flying aircraft fast, close to the ground, or close to some structure, a dangerous and illegal practice.

**CAA**
Civil Aeronautics Authority (Federal)

**CAP**
Civil Air Patrol. An organization formed in 1941 to help America during World War II. The CAP today is an all-volunteer civilian auxiliary of the Air Force.

‘‘Cattle Wagon’’
A large open-windowed van used, principally, to transport WASPs from the base to auxiliary fields.

‘‘Cemetery’’
In this book, a place where all the cracked-up aircraft were dumped.

**Chandelle**
An abrupt climbing turn of an airplane in which the momentum of the plane is used to attain a higher rate of climb. In this maneuver, the plane starts with a dive, gains speed, climbs, and turns to end in level flight facing 180 degrees in the opposite direction.

**Commercial License**
A federally issued certificate allowing a pilot to carry passengers for hire, or to haul freight.

**Cone of Silence**
The airspace above the intersection of four “beams” where no signal is heard. Usually this point lies at a beacon near an airport from which a pilot can find her way to the runway.

**CPT Program**
Civilian Pilot Training Program—a federal program to assist individuals in learning to fly.

**Cross Controls**
Rather than coordinating controls as in normal flying, a pilot can use opposing control surfaces to achieve a particular effect, such as a skid or a slip, or a crosswind landing.

**Downwind Leg**
Part of the traffic pattern, this first leg of the flight path parallels the runway opposite to the direction of landing.

**Fence Hopping**
A buzz maneuver where a pilot flies the plane so close to the ground she has to hop over any fences encountered—a dangerous and unauthorized maneuver.

**Fifi**
A logo designed by Walt Disney displaying an imaginary woman pilot named “Fifinella.”

**Final Approach**
Last (third) leg of the flight pattern, where the pilot descends from pattern altitude to the runway, normally into the wind.

**Flaps**
A part of the aircraft control surface at the trailing edge of the wings which, when lowered, causes increased lift (and drag), thereby allowing the aircraft to fly more slowly. Flaps are used most commonly for landing.

**Ford Trimotor**
A unique old-time aircraft with three propeller-driven engines.

**Grasshopper Pilots**
Pilots of small aircraft during World War II who landed and took off from grass fields—hence, grasshoppers.

**Ground Loops**
A high-speed skidding turn of an aircraft on the ground after landing, usually caused by loss of control.

**Horizontal Stabilizer**
A fixed part of the tail section which helps stabilize the vertical axis, or pitch, of the plane.

**Instructor’s Rating**
A federal rating requiring testing, that allows a pilot to instruct and sign for a student’s flight time.

**Instrument Conditions**
When there is no visible horizon, or when the ceiling is lower than allowable for visual flying.

**Instrument Rating**
A federal rating allowing a pilot to fly legally in instrument weather conditions.
Lazy Eight  
A maneuver requiring skillful coordination in which the airplane’s nose patterns a figure eight sideways to the horizon.

Light Line  
The line of lights on highways that is easily seen by pilots flying at night.

Link Trainer  
A training device (now known as a "simulator") with actual aircraft instruments and controls that allow a pilot to practice instrument flying without leaving the ground.

Mixture Control  
A control in the cockpit that allows the pilot to adjust the mixture of fuel and air in the engine.

Mothballed  
A term used for old airplanes being put away for possible later use or sale.

Ninety-Nines  
A very early organization of women pilots founded November 2, 1929 by Amelia Earhart and ninety-eight other women pilots at Curtis Field, Valley Stream, Long Island. This prestigious organization is still in operation today and many WASPs belong to it.

"Pad" the Log  
Adding flight hours not yet flown to one’s log book (requiring collusion with flight instructor, to sign for the time).

Pattern  
The three-sided pattern usually flown as an approach to landing at an airport: downwind leg; base leg; and final approach.

 Piper Cub J-3  
Best known of the old-time small, high-winged, single-engine aircraft, built by the Piper Aircraft Corporation.

Pitch  
Up-and-down motion of the nose of the airplane over its lateral axis.

Pop-ups  
Small sticks on the leading edge of the wings in some pursuit aircraft that showed the pilot the flap position.

Private License  
A federal license given a pilot who has demonstrated sufficient skill to be allowed to carry passengers, but not for hire.

Prop Control  
A control used in aircraft with variable-pitch propellers that regulates the pitch of the propeller blade.

Prop Wash  
A wind caused by the spinning propeller of a plane sometimes strong enough to be hazardous to aircraft taxiing or landing behind.

Ragwing  
An airplane with wings covered with fabric instead of metal.

Redout  
A state of semiconsciousness to unconsciousness caused by excessive negative "G" (gravity) forces experienced in some aerobatic maneuver: sending too much blood to the head.

Slow Roll  
A maneuver in which the aircraft is rolled about its longitudinal axis 360 degrees, returning to level flight, in a relatively slow and coordinated manner. This requires precise control if done properly.

Snap Roll  
An abrupt rolling maneuver which is accomplished by pulling back the stick and rapidly applying full rudder in the direction of the desired roll. The result is a rapid horizontal spin called a snap roll.

SNAFU  
Situation normal, all fouled up.

Spin  
A maneuver where the aircraft descends vertically, spinning around the vertical axis of descent if intentional, achieved by stalling the aircraft with stick full back and applying full rudder in the direction of the spin.

Stall  
A condition of flight where the angle of attack exceeds the wings' capability to provide lift thereby causing the nose to drop and the plane to lose flying speed—a function of nose attitude and airspeed which is also used in landing the plane.
Stick

A control device usually found in single-engine aircraft, which operates the ailerons and the elevators.

St. Elmo’s Fire

A flaming phenomenon sometimes seen in stormy weather at prominent points on an airplane, a ship, or on land, that is in the nature of a brush discharge of electricity.

Student Pilot License

A federal license allowing a pilot to fly alone, but not to carry passengers.

Taylorcraft

Another brand of old-time, high-winged, fabric aircraft similar to the Piper Cub and the Aeronca, built by the Taylorcraft Company in Alliance, Ohio.

Vertical Stabilizer

The vertical section of the tail of an airplane to which the rudder is attached.

WAAC

Women’s Auxiliary Army Corps

WAC

Women’s Army Corps

WAFS

Women’s Air Force Ferry Service

WASP

Women Air Force Service Pilots

WAVES

Women’s Appointed Volunteer Emergency Service

Wind Tee

A large movable structure on the ground that indicates wind direction, also called a tetrahedron, and often shaped in the form of an airplane.

Wishing Well

At Avenger Field, large shallow water body where pilots were tossed after their first solo flight.

Yaw

An airplane’s motion from side to side around its vertical axis.
proficient pursuit pilot she became, in P-51s and other fighters. My letter describing her to mother continued:

She's good company and she's nice. I applied for my leave while I was in Dallas, and our squadron commander approved it. So now if it goes through Personnel okay, I'm all set. Has Joanna sent my dress yet? And have you found my silver slippers?

Mother, how can I ever be content after this war? I'm spoiled rotten—getting free rides on airliners everywhere, staying in the best hotels, eating the best food, almost always being received royally and made a lot over, etc., far into the night. I could never be satisfied with the average woman's lot after this.

"How ya gonna get them back on the farm, after they've seen Paree?"

My love to Joanna and Grannie. Tell Grannie I'm so proud of her and her book and the way she's being so independent these days.... I loves you all.

—Maddion

On 5 December I wrote Mother about having to strap on a .45 while ferrying one of the planes I picked up in Wichita, because of the top-secret Norden bombsight that was installed in it. Of course I didn't tell her the name of the bombsight and had actually never been told it myself, but we all knew. The plane would be used for bombardier and navigator training. "There's secret equipment in my twin-engine plane," the letter told, "and Baby has to wear a gun. Sure feels crazy."

I failed to mention to her that there were two red buttons above the instrument panel with printed instructions to push the buttons if a landing had to be made "over enemy territory." They fascinated me, and during the whole flight my eyes were drawn to them. My fingers itched to punch them, just to see what would happen. Someone suggested maybe it would only ring a bell back at Love Field. I later discovered that pushing the buttons would have made the bombsight self-destruct.

Whenever I RON'd, the base was thrown into confusion when I requested—as ordered—a special guard for my plane. Nevertheless, some sleepy-eyed GI was always standing there when I appeared at take-off time the next morning.

It was thrilling to be trusted with something that would really make a difference in the war. I could not guess at that time that the Norden bombsight would be credited with playing a big part in the Allied victory, but I knew it had to be something important. It gave me a tremendous sense of satisfaction to be entrusted with its safe delivery at AAF bases, and it made navigating super easy, because when I set the bombsight to where I wanted to go, it acted as an automatic pilot and steered me straight to my destination.

There were problems, though, caused by my having a .45 on my hip and being dressed in the same uniform shirt and pants that officers in the Air Corps wore. This was before our own blue uniforms were issued, although I had already been fitted for one. Military Police frequently didn't know what I was, with the Air Forces patch on my shoulder, wings on my chest, and dog tags around my neck, so it was no wonder they challenged me, suspecting me of impersonating an officer.

I'd produce my ID card as ordered, and they'd study it incredulously. When one MP was rude about asking for my ID, I stretched to my full height and, producing the card, said, "Say 'sir' when you address me." Since I was wearing a long bob and bright red lipstick, he didn't know whether to laugh or not. But when he returned the card he saluted, tentatively. At least I didn't get thrown in the brig, like three WASPs who spent the night in jail for impersonating an officer in Americus, Georgia.

Once in a while I felt insulted when I was in uniform and some snooty maître d' at a hotel icily refused to seat me in the dining room because they didn't "allow women in slacks." If I was
I didn’t have time to write the details leading up to the first flight. Thirteen of us in two bays had fallen all over each other in a bathroom that seemed to be built for two, as we tried to brush teeth in one of the two basins and take turns in the two latrines. After that we had to rush back into our own bays to pull on zoot suits, brush hair, and “fall in” outside for breakfast formation.

We hadn’t yet learned to line up correctly or march in step, so we were a shambling group as we made our way to the mess hall. One girl marched daintily on her toes, her Achilles tendons apparently shortened from wearing high heels constantly. Some cadets pressed against the screen door to the mess hall as we passed them. There were low whistles and much rolling of the eyes (I was peeking and couldn’t help smiling at them) as we “marched” past them. Someone in our group had found time to peeking and smile, and I heard one cadet inhale deeply and say, “They’ll never be Government Issue!”

After a quick breakfast of French toast we were herded to the flight line, and everything else was blotted from our consciousness. The primary trainers were lined up precisely, shining silver in the sunlight, waiting for us. Four of us were given to each instructor, a civilian. We four had to be somewhere near the same height because of the shortage of parachutes. The trainees with the same instructor had to share the same chute and then leave it in the plane after each dual flight period, without the necessity of adjusting straps each time.

We were assigned to a nice-looking young man, a bashful brunet named Mr. Wade, who was courteous and mild mannered. I heaved a sigh of relief; I had heard about the instructors who yelled and cussed, hated women pilots, and made you cry. I needed patience and understanding, and Mr. Wade seemed like the type to supply such. We gathered around him.

He began by saying, “I don’t know much about girls. Er, I mean, I’ve never taught girls to fly.” He shifted uneasily. “I’m used to men. I’ve been instructing Canadian cadets, which is what we had at this field until the last couple of classes. But British or Canadian or American, it’s all the same. I mean, they’re men. Oh, hell, let’s go look at the airplanes.”

We walked up to one of the PTs. Mr. Wade pulled four sheets of paper out of his pocket and gave us each one. “This is the cockpit procedure. I want you to learn it so thoroughly that you can say it in your sleep. I’ll climb into the plane, and two of you get on each wing, and I’ll explain things.”

He put one foot on the wing and hoisted himself up easily, then slid into the cockpit. “I want you to say your cockpit procedure like this, and I’ll show you everything as I go along. Form One checked, right tank full, left tank full, safety belt fastened, gosports connected, seat adjusted, controls unlocked and free, parking brakes set, gas on, switch off, throttle cracked, mixture full rich, flaps up.”

The next day I learned I was to go up with Mr. Wade first. The schedule was posted on the big blackboard in the ready room, and my heart thumped happily. I hoisted my seat pack (parachute) up behind me the way I’d been taught and fell into step with Mr. Wade as we walked to our plane. He was wearing goggles and a baseball cap instead of a helmet. We climbed in, me in front, and he leaned over the side and shouted instructions to my fellow student who was going to crank the engine for us.

I went through the cockpit procedure, and Mr. Wade started the engine with a roar. We taxied out and swung into position next to the runway. My goggles were still on top of my helmet when the plane ahead of us checked its engine and blew all the sand in West Texas into my eyes and mouth and down my neck.

“Watch what I do now,” said Mr. Wade, not knowing I was blind from tears and grit, as he again demonstrated the cockpit check before takeoff. I felt the earth rushing under us, and we became airborne.

He made a turn to the left in the traffic pattern. Mr. Wade was telling me something through the gosports; it was one-way communication only, like speaking through a hose that was connected to my helmet. I couldn’t understand him. The roar of the engine
Winning My Wings

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Winning My Wings

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carburetor heat okay; cylinder head temperature okay; fuel and
diesel pressure okay," and then—_thayun_ I'm all set to take off, so I
radio in to the tower, saying "FF 81 from 97 (number of my
plane for that day) on runway in No. 2 position for takeoff.
Over." And the tower comes back: "97, follow 103 for takeoff.
Over." And I say, "97. Roger," and follow the other plane off. We
also have to radio in on our base leg when we're ready to land, to
get permission to land and to get spacing.

The new regime has taken over, and it is definitely a rule that
you get kicked out for associating with any instructor, so I can't
have another date with Click until I graduate (we have one then).

As I began to build up more solo time in the BT-15, the traffic
problem at Avenger Field steadily became worse. It was decided
that we should fly from two auxiliary fields some fifteen miles
from Avenger, to ease the situation. These fields, imaginatively
named Number One and Number Two, were no different from
every other flat, grassy rectangular field in that part of Texas, with
the exception of a small stage house in the center of each, a wind
sock and T. None of it was easily discernible from the air from any
distance.

All of us were supposed to know the location of these fields,
for we had used them occasionally in primary. The only way I ever
found them was by pure luck or coincidence, or by spotting other
planes circling the fields or parked thereon. I had never been able
to find Easter eggs, either.

Fortunately for me, we usually rode to these auxiliary fields in
the creaking old cattle wagon, because only the instructors and
first-period students flew the planes over. We arrived armed with
ground-school books, stationery, cards, and suntan lotion. Ordinarily we flew just one period out of the four and were per-
mitted to sprawl around on the hot ground with sleeves and pant
legs rolled up, a privilege that had been taken away at Avenger.

There were drawbacks, however, to flying from an auxiliary
field, no matter how lax the rules. One day, as we jumped from

chance to learn to fly them. After ten hours those four still
weren't ready to solo, so they were left as primary instructors, at
which they are pretty good. Isn't that strange? Some people just
aren't capable of handling the faster, heavier ships [it's not a mat-
ter of strength, but technique], and still they make good pilots
on lighter planes. Poor Jane. . . . I'll sure miss her and her inimit-
able sense of humor. Poor gal cried for two days, and I cried
right along with her most of the time.

After her experience, I don't feel much like blowing off about
my solo ride, but I know you'd like to hear about it. My instruc-
tors were taking me around a few times to shoot landings, and I
had already asked him to let me solo that day, since I was near-

ing the eight-hour mark. But I thought surely we'd shoot land-
ings for about an hour before he'd climb out, so I was really sur-
prised when he said, "Okay, let me out," after having shot only
three landings. I was simply thrilled to death, and not at all
afraid the way I was just before I soloed the PT. Well—maybe
there was just one fleeting second of terror.

Here is the cockpit procedure. It's too long to tell you all of it,
but this is the cockpit check we have to make just before we
take off. We're lined up at a 45° angle to the take-off position.
First I "rev" it up to 1500 rpm and check each mag (magneto) to
be sure it's working all right. If it doesn't lose too many rpms on
either mag, I rev it up some more on both mags to see if the
engine is clear. (All the while, of course, holding on furiously
with the toes on the toe brakes, stick held all the way back.)
Then I say, "20 degrees flaps," as I crank down 20 degrees of
flaps; "stabilizer zero," as I adjust the elevator tab; "rudder trim
tab three degrees right," as I adjust that to correct for the torque
of the engine; "gas on reserve," since we always take off and land
on the reserve tank; "mixture full rich," as I adjust the mixture
control; "prop in low"—we take off, climb, and land with the
propeller in low pitch—"carburetor heat full off; oil shutter full
open; altimeter set at 2400 feet (elevation of this field); instru-
cments caged (automatic gyro and artificial horizon instruments);
the wooden bus onto the hard ground of Number Two, Sandy said, "Has it ever occurred to you that if one of us cracked up over here, there's no fire truck or meat wagon?"

"I could forgive them for that," I said, "If they'd just put in a Coke machine." The weather was really getting hot.

"How could they? There's no electricity. Be grateful for the ice water in the thermos jugs. Remember when we didn't even have any water? Scarlett! Look out!" Sandy grabbed me by the arm and we ducked as an errant BT zoomed past our heads.

"Someone is practicing 'shooting stages' all by herself," Sandy said.

Sandy and I continued on toward the stage house. Before she could suggest homework, I said, "I've got to write Ned."

"How is he, anyway?"

"Doing better. He has the most amazing spirit. Mother wrote me that the doctors say that's the only thing that has pulled him through."

Inside the little stage house we found an unoccupied bench, and I got out my stationery. Sandy opened up a book. A plane zoomed overhead, so low that we rushed to the door to see what was happening.

"What is wrong with that girl?" I said. I found out the next period, when it was my turn to shoot stages. The exercise consisted of making spot landings on three points, with power-off approaches and no cheating with the flaps, meaning you could use them but you couldn't "milk" them up and down (something I didn't know how to do, anyway).

I felt more empathetic toward the wayward BT driver when it was my turn to try these spot landings solo. Before, when I had practiced, it had seemed comparatively easy. But the wind was acting peculiar now, and the T setting was new to me—diagonally across the field. Not only could I not hit the mark, I couldn't even get the BT down on the field in time to make a running takeoff again. I was humiliated.

Each time I'd make a good approach, put on flaps, and glide in. But then I'd hit a thermal or a gust of wind, and the plane would rise and sail across the field instead of settling down onto it. The man with the flags would wave me on. After a few unsuccessful passes at the field, I detected impatience in the way he threw those flags around. Other people seemed to be getting their ships down. But how did they do it?

For the first time since I'd started training, I had sincere doubts about my ability to make the grade. Always before, in spite of off-moments and bad days, I had felt sure, within myself, that I would get through. Now my confidence was shaken.

On the way home in the cattle wagon later that afternoon, I did not join in the lusty singing. I had always enjoyed belting out the songs with the rest, but now I stared out the window at the barren, windswept West Texas landscape that suddenly was very, very dear to me.

If I had to leave it, I simply didn't know what I should do. Go back to work as a secretary? Never! Go home? To a little hick town in Georgia when a big, terrible war was changing the world? Not a chance! Well, what then? And where? I knew now how the girls who had washed out must have felt. I even understood how Jane, with a husband and child, could feel that the bottom had dropped out of everything when she had to go home.

Back in D-5 there was much mail waiting. I read it without interest, even though mail was usually the big event of the day. As dear as my correspondents were, they didn't have a clue as to what our life at Sweetwater was all about.

Then Shirley held up a letter and said, "This one's for you, Scarlett. I don't know how it got in my stack." She handed me a letter from Ned. Well, at least here was one person who talked my language and would understand what was going on. The whole letter was in Ned's own handwriting! I was as thrilled as if I'd accomplished something terrific myself. Some of his determined spirit seemed to penetrate my dejected mood, and my depression
"You're trying to get rid of me," I murmured.
"Don't you know how to plot your course?"
"Well, yes, I think so."
"What's the matter, then?"
"I've never been any farther than the auxiliary fields, and I can hardly find them. How am I going to find Mineral Wells and Wichita Falls?"

I walked between the long lines of basic trainers, looking for number 78. My parachute seemed to weigh a ton, and the heat from the summer sun (it was almost July) boiled up from the asphalt in visible waves. My hot zoot suit was plastered against my back between my shoulder blades, and my hair sagged limp and damp against my neck. I longed to roll up my sleeves and trouser legs but didn’t dare. I’d be giggled if I did. It didn’t look military, they said. Hah! General MacArthur wouldn’t look military in a zoot suit.

I felt the dust clinging to my perspiring face where the telltale triangles of suntan sat upon my cheeks, triangles made by wearing goggles, identifying me as a WAFS trainee even when I wore my best civilian clothes into town. A recent newspaper article had called us “glamorous” and I smiled wryly to myself as I recalled it.

Nearly four hundred miles was a long way, all alone. I wasn’t used to the BT yet, and I couldn’t help remembering the only cross-country I’d ever taken alone, in a Cub, when I had ended up in that cotton field, blown off course by a crosswind. I swallowed. Well, at least the BT had a radio and they could keep me advised of any change in the weather. It didn’t take long in Texas.

Mechanically, I began the cockpit procedure; I had memorized it thoroughly. It began, of course, with the Form One. I picked it up, looked at it, and gulped. A red diagonal! That meant something was wrong with the ship. But underneath the red line the plane had been released for flight, with a mechanic’s signature to testify that there was no danger in flying that plane.

Okay. Gas tanks. Safety belt. Headphone. Radio. Rudders. Controls. Brakes. I went through the rest of the check automatically. I was still wondering what the red diagonal meant. Some tech order not complied with, it said, but the TO number meant nothing to me. Oh, well, I “had to trust”: Ned’s expression.

I made S turns down the ramp toward the runway, lined up at a forty-five-degree angle from takeoff position, and ran the engine up for its pre-takeoff check. The tower cleared me to take off. To take off! On a trip almost four hundred miles long, over parts of Texas I had never seen before, in an airplane I had only a nodding acquaintance with? They must be mad! But I opened the hatch, took a long, dust-filled breath, turned into position, and gave her the gun.

The BT roared down the runway and gave deceitful little indications of wanting to fly. My hand tightened on the stick as I held the nose down, because I knew that if we lifted off too soon we’d mush unsteadily through the air and perhaps squash back to earth. This ship needed more horses.

As the end of the runway rushed nearer I let ol’ 78 take the bit in its mouth, and we lumbered upward and onward. We were off! That was something in itself. I sang, “Off we go, into the wild blue yonder . . .”

I circled the field for altitude and penciled the takeoff time on the patch of adhesive tape stuck to the knee of my zoot suit for that purpose. Turning to my compass heading, I flew on toward Mineral Wells. Soon I had the uncomfortable feeling that I was being watched. Ridiculous! There was no one in the backseat. Still, I sneaked a quick look just to be sure.

I gasped. Immediately off my right wing, close enough to chew a hole in it, was the prop of Shirley’s BT, with a grinning Shirley in the cockpit of the plane. She was flying formation with me.

We hadn’t yet been instructed in the art of formation flying (and we never were, officially; mostly we just taught ourselves). I tried to edge over a little, but Shirley stuck close and only laughed
but life went on. I knew death was a constant possibility, but it was worth the odds to get to fly.

That month brought good news from both the fighting fronts. In the Pacific, American forces were still clearing out Japanese positions in the Solomon Islands. In the European theater, Axis forces were collapsing in Sicily. The Russians began their summer offensive on the eastern front.

On the Sweetwater front, my zoot suit stuck to me in the hundred-plus-degree heat (in the shade, if you could find any shade). Food had no appeal. Five pounds melted off my body, and I had to cinch the belt of my zoot suit even tighter. With no planes to fly and nothing but PT, ground school, and the Torture Chamber to fill our long, incredibly hot days, lethargy settled upon our class. The Army finally took pity on us and hauled us to Sweetwater for a swim in the community pool twice a week, as a substitute for physical training.

We marched at the graduation of Class 43-W-4 as the Midland AAF band played on 7 August, and suddenly we were the upper class. Sandy was selected as group commander, which meant that she had many more jobs to add to her already crowded schedule. She was liaison officer between trainees and supervisors; she had to arrange schedules, meet formations, make announcements, preside over council meetings, and help organize reviews. Section leaders and individual squadron commanders’ reports of delinquencies all went through Sandy. Hers was a gigantic job. But the full meaning of it was lost on her roommates. We concentrated happily on just one feature of her new title: she could excuse people from being late to formations and would stand firmly behind any one of us who got into trouble.

The supervisors liked Sandy and the trainees loved her. She granted special privileges to all who asked (if there was any reason at all to grant them) without ever going to the supervisors about the matter. She listened with a sympathetic ear to all the complaints and gripings that came her way, and she did her best to alleviate the sources of unhappiness.

On 9 August, I finally climbed into the cockpit of the North American dreamboat, the AT-6, and discovered why I was born. Whereas flying the BT-15 had been work, piloting the Six was ecstasy. The term “user friendly” had not yet been invented, but that’s what the Six was, in capital letters. Flying it was like galloping on a sleek, perfectly trained Arabian horse after having ridden nothing but a swaybacked, obstinate nag.

First came the thrill of tucking those wheels up after takeoff. Next came the realization that this plane would respond to my every whim, quickly and smoothly. Finally, there was the stunning knowledge that it was all but impossible to make a bad landing in it.

After three hours of instruction, I soloed. This time there was no fear, just exhilaration and astonishment that even I could fly this plane without any problem. The Six made me feel as if I had just been transformed from a pesky moth into a beautiful butterfly. In fact, I began to suspect that a hot pilot had just been hatched, a heady and potentially fatal illusion.

I said to myself, No wonder the Japanese copied the AT-6, if that rumor was true, and put a more powerful engine in it. Thus they made it into their maneuverable Zero, which they used as a fighter throughout the war.
Well, Thursday night we stayed at the Adolphus Hotel downtown, and "Bacchus" brought along a friend for me—a Naval lieutenant who is now taking flight training—and Sandy had a date with an Englishman we met on the train (RAF). We had a wonderful shrimp cocktail and steak dinner and fine time afterwards.

Friday morning we wrenched open our eyes and reported to the base at eight o'clock A.M. We were assigned rooms in the BOQ (Bachelor Officers' Quarters) which are nothing more, really, than barracks. But we have a room of our own. Our barracks are so new that the sheetrock isn't even put up in my room; it looks like Tate [our mountain cabin], though, so I don't mind. We are only furnished a cot (much worse, even, than the one at Sweetwater, but who cares?) and a wooden "closet"—sort of a wardrobe affair that doesn't even close. I'll hang a curtain in front of it to match the window curtains I shall someday buy, and I'll purchase a scatter rug and a bright bedspread, so it should be cheery as soon as I have time and money to fix it up. Also, I'll have to get a desk. Sandy and I have adjoining rooms, and Shirley is two steps across the hall. [There was a communal bathroom on the first floor, with no shower curtains on the shower stalls and basins lined up in a row.]

We are to be on duty every day from eight to five, and the rest of the time is our own. We are treated as officers, and no one cares where we sleep or when we go to bed, which is quite a treat after Sweetwater. But as soon as we get started flying, naturally we have enough sense to get plenty of rest—and I guess they know that.

We were released early on Friday to go into town and buy uniforms. I bought two more shirts and another pair of pants, which should last me until our official uniforms are issued. We wear the Air Corps insignia on our arms and officers' braid on our overseas caps.

We have been issued leather jackets, sweaters, helmets, goggles, navigators' kits, brief cases, luggage, and parachutes—all Air Corps equipment and most of it brand new. We feel very official, and also swanky with the beautiful traveling bag [B-4 bag] which has each WASP's name and base stamped on it. Our chutes were fitted on us and we have cases for them, too. All these above-mentioned items are khaki colored.

There are hundreds (literally) of men ferry pilots here, and most of them very attractive. Say, guess who is based here! Ben Juhan . . . from Athens! We nearly fainted when we saw each other. Neither knew the other flew.

We will be given check rides some time this week, first in the BT and then in the PT (the smaller plane last because they realize how hard it is to jump from heavy planes which we have been flying to the lighter ones). We'll start ferrying in a couple of weeks.

Everyone agrees that Dallas is the best base in the whole wide world. Everyone is so friendly, and we have gotten such a warm welcome—even from the C.O. himself—that it's hard to believe that at some bases the WASPs are resented.

Last night there was a huge party at the Officers' Club (we are members) and I hadn't planned to go since I had a date with Bruce and felt punk anyway from a typhoid shot—but the spirit got me, so I had Bruce come out here to the dance.

We had a wonderful steak dinner, complete with an orchestra and the best floor show I've ever seen anywhere, and a dance afterwards. Sandy and I were having so much fun that once when the band left for their 15-minute intermission, she sat down at the piano and I at the drums—and played. People actually danced to it and applauded, so you can see how happy everyone must have been.

The Officers' Club is simply beautiful—horsehair-covered chairs at the bar, and murals. It adjoins the Officers' Mess, which is where we WASPs eat. Incidentally, the food is simply wonderful and there is a wide variety. We eat cafeteria-style, and it certainly is pleasing to the appetite to have good looking men eating at the tables all around you, and often even with you at your table, if they are feeling bold . . . .
first ferry trip, which would take me over desert and mountains.

Before I got my orders, however, Shirley and Sandy were ordered to Dodge City, Kansas, to B-26 school. So the rumors had been true! All three of us were in shock, and the thought of losing my two best friends devastated me. On 15 October I wrote my mother about it:

Luckily, today of all days, I got sent out on my first trip. Sandy and Shirley were to leave on the 1:15 P.M. plane from Dallas to Dodge City, and I got my orders a couple of hours before they left, so we didn't have time for a painful good-bye—we were all so busy throwing clothes in our B-4 bags.

Yesterday when we found out they were to report to Dodge City and leave me behind, we all nearly died. I cried my eyes out all afternoon, because I don't know when I'll ever see either of them again.

I'm writing this in Wichita, Kansas. Got my orders at 10:30 this morning, and at 11:00 I was on TARFU Airlines [TARFU and SNAFU were Love Field's own private airliners for ferry pilots, the initials standing for Things Are Really Fouled Up; and Situation Normal, All Fouled Up], which was filled with men and a handful of WASPs. The plane we were on was a converted Douglas (same as used by American Airlines) with the seats taken out. There is a small aluminum bench on each side where one can sit, but many of us sat on our parachutes on the floor and played poker.

We were all ordered to pick up PT-13Ds here [at the Boeing factory] in Wichita and deliver them to Glendale, Arizona. They're fun to fly but feel so light after the powerful babies we've been flying more recently that it's like sitting in a matchbox floating around in the breeze.

The wind was too strong to take off this afternoon, so we'll leave tomorrow morning. The Army furnishes our transportation from the field into town and back again; also they made our reservations here at the hotel for us, so we're all set. Can't wait to get started! I'm really anxious to spend some time flying again.

I can't even talk about Sandy and Shirley without choking up. We've lived together so intimately for so long—sharing the same anguish, uncertainty, triumphs and above all, the same interests and goal—that it's like losing my right arm to see them go. Living with those two people 24 hours a day for seven months is a real test of friendship, and we have camaraderie that is rare indeed and hard to equal. I don't know, really, how I can stand it without them—but of course I will.

Your nice letter came at the height of my misery yesterday, and it helped to hear from you. I'm so glad Grannie is doing so well. Tell her I'm proud of her for being so independent these days. Tell the darling I love her.

Well, I must take a shower now and get cleaned up for dinner. These B-4 bags are wonderful: hold dresses, shoes, and everything we need. I'm a civilian tonight.

Our group only got as far as Abilene in our Yellow Perils the next day. Landing the PT-13D was a snap when there was no crosswind. We were weathered in for three days. We WASPs stayed at the WACs' BOQ, but there were no WACs on the post. There were only countless lonesome bachelor officers among whom to divide our attention. But nevertheless, I planned to call Bob in nearby Ballinger.

Then I met Danny, a Navy lieutenant who had engine trouble with his dive bomber and was waiting at the AAF base for a new part to be flown in. Danny looked like Robert Taylor, only taller. I had seen the real Robert Taylor in Dallas several more times, and he was simply gorgeous in his Navy uniform with wings of gold. Each time I'd seen him he'd stared me down, because I was in a man's Air Corps uniform and he obviously couldn't figure out what in the world I was. Now here was his double in Abilene! I
March 9, 1944

Marion, baby,

Member a long time ago I wrote you that I wouldn't embarrass you by proposing to you (cause you led me to believe that you were not interested in matrimony)? You have never intimated to me that your lack of interest was due to anything other than something within you.

I don't think your job is insignificant! It's a damned sight more significant than mine!

I think I could easily understand any feeling of moral obligation you may have. God knows, if you had no such sense, you couldn't be what you are.

As things stand right now, we have life's normal roles reversed. Rather an unusual situation, what? C'est la guerre!

Now, marriage is out of the question, you say. I have felt that it was, all along, purely and simply because, as I said in my last letter, aviation has set you free.

Time is my greatest enemy. You will see so many men that you'll begin to wonder, perhaps. I'd like to catch you while I seem to have you well fooled.

March 7, 1944

Mother, dear:

Got a nice, long letter and some cards from you today. I'm here in Dallas for several hours between airliners, and at last got to get some clean clothes and my mail.

Got a perfectly lovely letter from Bob, in answer to mine telling him about Ned. He wants to keep on seeing me even so, but says if my Ned is "sure enough," then he'll back out gracefully when the time comes. I'd like to see him again, just to prove a few things to myself. But there's not much doubt.

Delivered another twin-engine Beechcraft to San Marcos, Texas, today. I'm still in love with it (but I'm more in love with Ned)!

Too tired to write more. Just wanted to say I love you deeply.

One day later that month, I went to the North American plant at Grand Prairie, Texas, to pick up a new AT-6. I did all the paperwork and climbed into the cockpit confidently, expecting nothing but pure pleasure out of everybody's favorite airplane, the AT-6 Texan. I had tentatively "bought" it for the government, but the first fifteen minutes or so of flying would be the final check flight, if it could be called that. If anything was amiss during that time, I'd return the plane to the factory.

I climbed into the beautiful, brand-new silver Six and went through the cockpit check while two mechanics stood by, waiting with fire extinguishers. I started the plane, and the engine burst into flames. I didn't have time to be afraid.

We had been taught that if a plane caught on fire when we started it to quickly shove the throttle all the way forward to blast out the flames. So with an automatic reaction, I jammed the throttle forward while holding the stick all the way back and pushing with all my might on the toe brakes. Chocks were still under the wheels also.

I expected the prescribed move to blow out the fire as promised, but it didn't work—even with the mechanics' quick response with their extinguishers. The flames leapt higher, reaching all the way back to the open canopy of the cockpit where I sat. They were darting across the wings, to where the gas tanks were. Now I was scared.

One of the men jumped up on the wing beside me, screaming for me to get out. But I was already on my way, having throttled back at the last minute. I jumped down and raced away from the plane.

The brave mechanic jumped into the cockpit with flames leaping all around the canopy, and worked the throttle back and forth while the second man continued to spray the source of flames in the engine. Between them, they got the fire out. How they did it, I will never know. I watched them from a cowardly distance. Miraculously, no one was burned.
You have the distinct advantage of being in a position to see the future by turning the page.

[Later:] Here’s the news. Everybody has seen me now, including the captain (flight surgeon). They surveyed me to duty within the U.S. as a Class II pilot. (I can be restricted to certain types of aircraft and am not to be considered for combat duty.) The best part is that in six months I go up for reclassification, and if I improve as much in the next six months as I have in the past six, there’s a chance I’ll get back to Class I status. (My skin will be the determining factor, as it changes so damn slowly, cuss it.) Anyway, darling, I’m happy as a fool and I love you.

Darling, I think you may know, but let me tell you again, that last evening was the happiest I’ve spent in my life! Thanks for coming to see me, honey. I hope if you are disciplined, it won’t make you feel too bad—hell, baby, you’re a civilian. They shouldn’t discipline you. Tell them you conquered a Navy pilot and did a great work on bringing about closer cooperation between the Army and the Navy!

I love you.

In my lovesick state that March, I was unaware of a growing tide of resentment against the WASPs. Thousands of letters were pouring into Washington, D.C., protesting the government’s employment of women pilots when there were now civilian men available who wanted our jobs. Civilian contract flying schools were beginning to close down, now that they had trained sufficient numbers of Air Force pilots. The instructors at those schools would soon be out of jobs, with many of them eligible for the draft.

It was the norm in the 1940s for the men to be the breadwinners of the families, and the mindset of the country was that women should not take jobs away from men. However, Ned and I were oblivious to what was happening on the national scene, as evidenced by his letter dated 14 March.

[Naval Hospital, Norfolk]

My darling,

I’ve just finished writing four pages on a letter to you only to discover that I’ve written so fast that I can’t read it. You see, thinking of you gets me so excited that I not only can’t talk, I can’t write.

I’ve been thinking things over since you left. I miss you something fierce, guess that’s why I can think of little else.

The thinking brought me to the conclusion [that we should get married now]. Married, we would stand a good chance of getting together from time to time, and as long as I am a Class II pilot, you could take your leaves visiting me and I could take mine visiting you, thus guaranteeing us about 20 days per year. Is there any reason why I couldn’t ride as a passenger if I was on leave with you, and you were sent out on a trip? That would be a better set-up than loads of war husbands and wives have.

To summarize it all [after twelve pages]: (1) I love you very much; (2) I don’t think I could miss you much more married, than unmarried. (Might go mad from wanting to be with you, but I don’t know about that now); (3) we could see each other as much or more than a whole hell of a lot of other war couples do; (4) We would have an interest in saving for our future; (5) We’d have to steer clear of entangling alliances; (6) We’d have to trust each other to operate pretty much as we do now, except no woo pitching [with others] or—for me, anyway—lustful eye glances; (7) I’d rather have you under a restricted set-up than not at all; (8) I’m afraid we are both susceptible [to other people, in our unprotected state]; and (9) I think this has more merit than “putting it on ice” [which is what we had agreed to do until we could get married].
March 14, 1944

L. after riding American all night. 
me, honey, after seeing me as dirty and ugly 
igh, then it must be the real thing! I hadn't 
y clean uniform from the cleaners for a 
seen a bathtub for days! My hair was stringy, 
there were great bags under the eyes, and I 
rd, rundown, and worn out. And you! You 
!" Honey, ever since you said that, I've been 
exquisite creature in existence. Venus her- 
e from you is like a shot in the arm, and I 
d be beautiful—of face and soul—with you

All during March there were more rumblings on Capitol Hill about 
women pilots taking men's jobs away from them. On 15 March I 
was finally made aware of the situation, when I saw an Associated 
Press story in the New York Times stating that a House investigat­
ing committee was considering whether the WASP program 
should be discontinued. 

The Army and Navy had now given official notice of their inten­ 
tion to abandon the War Training Service program, the article 
reported, thus releasing about nine hundred pilots and more than 
four thousand student instructors who would be looking for jobs. 
Indignation directed at the WASPs was building in male civilian fly­ 
ing circles, because many of these men were losing their draft 
deferment and abhorred the possibility of being put into the 
"walking army." In addition, the Times article said, about ten 
thousand of the twenty-five thousand Civil Air Patrol pilots could 
qualify for the work being done by WASPs. 

I was shocked. I had thought we were indispensable to the war 
effort. We certainly had been sorely needed when I'd signed up. 
Mentally I shrugged. I was much too busy to worry about being 
viewed with displeasure by a bunch of jealous pilots, so I pushed 
the knowledge of their wrath to the back of my mind. When I sat 
down to write Ned on 17 March, I had temporarily forgotten all 
the hullabaloo and was in a frivolous mood.
Cover  This issue of Montana concentrates on the twentieth-century West, but Montana’s cowboy artist Charlie Russell could find the turn of the century bothersome. So it was for his painting, Life Saver (watercolor, 20½” x 15¾”), reproduced on the cover courtesy the Charles M. Russell Museum of Great Falls. According to Russell scholar and art historian Brian W. Dippie of the University of Victoria, this was the “after” illustration in a pair of before-and-after watercolors painted in 1910 for the Life Saver Seat Lock Company of Minneapolis and Winnipeg. “It was to advertise the company’s adjustable seat lock,” Dippie says, “which securely fastened the wagon seat to the wagon box, thus preventing driver and passengers from being thrown when a road-hogging automobile of the sort shown forced them into the ditch.”

“Russell did a minor amount of advertising art,” Dippie continued in a generous note to the editor. “His contracts with large calendar companies prevented him from doing more. Life Saver, and its companion An Old Story (also at the Russell Museum), serve to remind us of Russell’s fondness for painting pairs—buffalo hunts with a matching prelude or aftermath, matched studies of Indian men and women, wild animals, etc. This is a neglected aspect of his artistry, especially since what were at one time companion pieces have sometimes become separated over the years, obscuring the link between them.”

In this issue, articles focus on radical politics in Montana’s far northeastern “red corner,” the rise of the modern ski industry, Mike Mansfield’s years in the U.S. Senate, Norman Maclean and Robert Utley’s writing on Custer, and Great Falls during WW II. In connection with the latter and reproduced on the back cover are a wartime ration book and a War Department poster from 1944 featuring a painting by “Schlaiker” that depicts a heroic airman. Both are in the Society’s Museum collection. The ration book was the gift of Darrell Beckstrom; the poster a gift of the Montana Tech Library in Butte.
THE GREAT FALLS HOME FRONT DURING WORLD WAR II

With the stack of the Anaconda Company’s smelter in the background at upper left, a single-engine 7th Ferrying Group P-39 makes its way over Great Falls during World War II.

by William J. Furdell

WITH THE BOMBING OF PEARL HARBOR ON DECEMBER 7, 1941, AND THE NATION’S ENTRY INTO WORLD WAR II, GREAT FALLS RESIDENTS, LIKE AMERICANS EVERYWHERE, READILY EMBRACED THE NEED FOR SACRIFICE TO SUPPORT THE WAR EFFORT. Among the Montanans to die in combat during the war were 129 servicemen from Great Falls and surrounding Cascade County. Their deaths visited untold grief on their Montana families and friends, and their loss undoubtedly caused the single greatest source of suffering for those on the home front.1 With that notable and most significant exception, however, the sacrifices the people of Great Falls made in support of the war consisted more of minor inconveniences relating to wartime shortages than anything else.

Indeed, the most significant, long-term impact from the war came with the establishment of East Base, a major military installation just outside of town, giving rise to growth and change.

As was true elsewhere, the people of Great Falls were not only dismayed at the news of the Japanese attack on Pearl Harbor but fearful of imminent air attacks or sabotage in the United States itself. Such anxieties soon receded, however, and Great Falls citizens, confident of the nation’s ability to secure ultimate victory, adjusted to wartime needs and routines. They not only tolerated shortages and endured the rationing of gasoline, tires, shoes, butter, meat, and a myriad of other products, but they also embraced the war effort enthusiastically, volunteering their help for everything from blackout enforcement to scrap drives and bond sales. Women went to work at the new air base and, for the first time ever, took jobs in production and industrial maintenance at the Anaconda Company smelter in Great Falls.
For most people in the greater Great Falls community, the war was a positive experience. It constituted a unifying cause around which local citizens could rally and within which individuals could find meaning and purpose. Even as they accepted necessary sacrifices, they enjoyed the psychic benefits that came with being part of a community practically unanimous in its support of the war. The Great Falls community embraced the economic benefits brought by wartime demands for what local farms and factories could produce, and by the employment and contracting opportunities generated by the location of East Base, with its rapid addition of some four thousand personnel to Great Falls’s population.\(^2\)

Indeed, East Base, as it was called initially, would have the greatest impact on Great Falls. In addition to its tremendous economic influence on the community during the war and after, it reshaped the social and cultural character of Great Falls for decades. East Base, so named because it was east of Great Falls, but renamed Malmstrom Air Force Base in 1954 in honor of Colonel Einer Axel Malmstrom, who died when his T-33 trainer jet crashed in the vacant countryside eleven miles southwest of the base, brought military personnel of diverse origins from throughout the United States to the community.\(^3\) Many came after tours of duty in England, Germany, Korea, Japan, and the Philippines, where some had found spouses. Others married into Great Falls families. During the war and for years afterward, many of the military personnel who experienced Great Falls during the war chose to make the city their permanent home. Active and retired military personnel and their families both increased and diversified the city’s population.

On the eve of the nation’s entry into World War II, Great Falls struggled to overcome the effects of the Great Depression. Hard times had slowed the city’s growth to a virtual halt, and the city’s population, which had stagnated at about thirty thousand people throughout the 1930s, went unchanged through late 1941.\(^4\) Such conditions did not reflect the ambitions of the city’s founders. Unlike the lawless mining camps and roaring cattle towns so much a part of the lore of Montana and the Old West, Great Falls began as a businessman’s town. It was said that the city “couldn’t point to a boot hill or a hangin’ tree.” Great Falls had its origins in the dreams of Paris Gibson. After the Panic of 1873, Gibson, a Minneapolis entrepreneur, abandoned failed business interests in Minnesota and traveled west to Fort Benton, Montana, the head of upper Missouri River navigation. There he raised sheep and engaged in the wool trade. Gibson first saw the nearby falls of the Missouri in 1880, and with a businessman’s eye quickly recognized their potential for the production of power. Gibson convinced his friend, railroad magnate James J. Hill, to invest in a townsite at the falls and urged that Hill extend his railroad through the new city on its way to the Pacific Ocean. By 1887, Hill had completed rail lines linking Great Falls to Butte and Helena, and over these lines copper ore soon arrived for processing in Great Falls plants. To Gibson’s chagrin, however, Hill took advantage of the rediscovered “Lost” Marias Pass and built a more direct transcontinental route through the Rocky Mountains on its way from St. Paul to Tacoma, Washington. The main line of his

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1. Bill Sharp, *Montana G.I.s Lost in World War II* (Helena, 1994), appendix 2. In Cascade County, 129 were counted dead or missing and in the state of Montana, 1,553. As percentages of the total 1940 population, these numbers represent 0.31 percent and 0.28 percent respectively. The figure for the United States and its possessions was 0.42 percent, indicating that Montana and Cascade County’s casualty figures were somewhat below the national average.

2. Great Falls Tribune, November 7, 1943, p. 1. The war brought a significant increase in the city’s population. Official off-year census figures are not available, but the Tribune reported that the population had grown from 29,990 in 1940 to 35,500.

Great Northern Railway thus bypassed Great Falls to the north. Despite this setback, Great Falls, located on a plain just forty miles east of the foothills of the Rocky Mountain front, became a major center of trade for area farmers and ranchers, and its dams on the Missouri River contributed power for ore processing and grain milling industries. Through the end of the nineteenth century and the early years of the twentieth, Great Falls prospered or suffered in response to fluctuating markets for copper and grain. The World War I years were prosperous for the city, but in the years that followed, drought and declining wheat prices crippled Montana's farm economy and undermined the Great Falls economy as well. Then came the Great Depression of the 1930s, which wrought additional cutbacks in the mining and smelting industries. Hard times kept the city's growth in check until events at Pearl Harbor put the city on an entirely new course.

AT FIRST, THE COMMUNITY'S RESPONSE TO WAR WAS PRECAUTIONARY. To prevent sabotage, guards were posted at city reservoirs, at the water intake at the river, and at the airport. Off-duty firemen and policemen were ordered to remain available and be on alert in case of emergency. The Great Falls city council passed a defense ordinance and, immediately after the declaration of war, prepared the city for potential air raids. Issuing the first blackout proclamation on December 21, 1941, Mayor Edward L. Shields spelled out procedures to be followed. Three long blasts of whistles or sirens accompanied by the blinking of street lights signaled an impending air raid. Citizens, who were enjoined to “Turn out all outside lights and inside lights that can be seen from the outside,” were also told: “Don’t forget your skylight!” For safety’s sake, everyone remained where they were when the signal was given, “inside or outside, at home, in theaters or any other place, stay there while the blackout is on. This means everybody—men, women, and children.” The proclamation prohibited driving without lights, so anyone driving, whether in a motorized vehicle or on a bicycle, was to pull to the curb immediately and turn off their lights. People were reminded to turn off their lights at home any time they planned to be away at night in case of a blackout. Three short and one long siren blast with the street lights back on meant “all clear.”

As was typical of community groups' involvement on the home front, the Great Falls Boy Scouts responsibly distributed 7,500 blackout regulation sheets. Three hundred adult volunteers formed twenty divisions under subwardens or captains to oversee the blackouts. Failure to comply with blackout rules could mean a fine of up to $300 and up to ninety days in jail, but according to one account, “almost everyone responded loyally and heartily.” The Great Falls Tribune urged “nervous people” not to be frightened by the necessary precautionary measures and assured its readers that the danger of air raids would remain negligible unless the Japanese secured bases in Alaska.

Great Falls residents showed no signs of panic and seemed to take the war in stride, although they expressed anger toward the Japanese in the aftermath of Pearl Harbor and the Bataan death march. In the Great Falls High School 1942 yearbook, seniors proclaimed their ambitions “to fight the Japs; to shoot Japs; to bomb Tokyo.” Some students looked forward to joining the United States Army, Army Air Corps, or Navy. One senior high school girl said she aspired to be “a war nurse.” Most students, however, listed conventional career ambitions or simply evinced desires “to be married” or “gay.” Patriotism and war-related themes permeated the Great Falls High School yearbooks, but by 1945 “Japs” were not mentioned in text. Rather, the message from Principal Armin G. Jahr was more conciliatory, sounding a theme of how “Real life knows no differences in class, race, and religion.” Students took pride in a B-29 bomber being christened “Bisons” in honor of their record-breaking per capita purchases of stamps and bonds, and their yearbook included photos of several patriotic young men who had joined the service before graduating.

Nonetheless, Great Falls High School students, like everyone else, were affected by the ever-present fact of war. Paper and supply shortages, as well as teacher shortages, were all noted in their 1945 yearbook. A photograph that showed a football program cover

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announcing one of the previous fall’s football games also revealed how drawings of fighter planes, warships, and army tanks festooned the poster. Still, there was plenty of ordinary content relating to social and athletic events and little overt militaristic chauvinism. Agora Club members, for example, were pleased that despite the shortage of paper, they had successfully sponsored their traditional confetti booth at the Booster Carnival.

Boys’ athletics received emphasis, but girls’ activities were not ignored. Some two hundred to three hundred girls were reported active in school sports during the 1944-1945 school year, most in volleyball, basketball, and tennis. Bowling, also a popular choice, had been added during the last year of the war. “Although they do not assume the highly competitive aspect which colors boys’ sports,” one yearbook writer observed, “girls’ athletic activities continue to interest a large proportion of the female population.” Such remarks, by today’s standards, reflect primitive attitudes toward women’s athletics, but it was a positive recognition that participation and interest were on the rise, perhaps in turn reflecting the increasingly visible role women were taking in many endeavors during the war.

As in peacetime, students focused on social activities, athletic events, and academic studies. And while day-to-day activities continued as before, concerns related to the war were ever-present. Few people, children or adults, were unaffected, and on the heels of Pearl Harbor and the horrors associated with Bataan, xenophobic reactions against Japanese Americans were manifest. Racism, a recurrent flaw seemingly in all cultures, was present even in peacetime, and anti-Japanese sentiments intensified as military casualties and reports of atrocities mounted. Cartoon portrayals and newspaper drawings perpetuated and enlarged racist stereotypes. One advertisement in the Great Falls Tribune gave Japanese soldiers a particularly sinister, animal-like appearance, portraying them with arched eyebrows, opened mouths, and jagged teeth. Another depiction, an attempt at humor but still racist, portrayed a Japanese man sporting huge canines and pointy ears and exhorting Americans, “Please Not To Buy U.S. War Bonds And Thank You So Much.”

Although racist portrayals and stereotypes persisted, the Great Falls press actually cautioned against inappropriate anti-Japanese attitudes and actions. Two weeks Montana,” Montana at War Conference, Montana State University, Bozeman, September 16, 1995; ibid., April 28, 1943, p. 8.

11. Great Falls Leader, March 27, 1942, p. 4. The Leader reported that 1,859 Japanese were located at Fort Missoula. Figures are uncertain, but there were probably about 2,000 detainees, approximately one-half of whom were Japanese and the others Italian seamen. Steve Braun, “Japanese Prisoners at Fort Missoula, Montana,” Montana at War Conference, Montana State University, Bozeman, September 16, 1995; ibid., April 28, 1943, p. 8.
12. Great Falls Leader, November 17, 1942, p. 4, March 6, 1943, p. 4.
after Pearl Harbor, a Tribune editorial sympathized with the plight of Japanese Americans living in Montana and called upon readers to recognize that these people were “good Americans” who deserved fair and decent treatment. Noting that a number of Japanese families resided in the High Line area, one writer observed: “These are families that have accepted American [sic] completely and their children know no other country or patriotism.”

Another editorial reported private citizens “taking severe measures” against “dangerous and subversive aliens” elsewhere in the country, but urged Great Falls readers not to act individually. Instead, they should leave matters relating to subversive aliens to the government.10 Great Falls residents seemed to agree with such an approach. There were no accounts of actions taken locally by private citizens—nor by government authorities, for that matter.

By late March 1942, federal authorities had relocated approximately one thousand West Coast Japanese to Fort Missoula. In Great Falls, the matter was reported briefly but without extended discussion or opinion on internment practices. When the state of Montana put in a request for 4,500 “Jap workers” for the sugar beet fields, Helena authorities insisted they labor under federal supervision and not be allowed to remain in Montana after the war. Such provisions no doubt mirrored the prevailing viewpoint throughout the state and region—Great Falls included—but nothing indicated discussion about or interest in the matter locally. Local theatergoers might have needed the Great Falls Leader’s assurance that they should not stay away from a touring performance of Gilbert and Sullivan’s Mikado “simply because it is a story of the Japs,” but even in peacetime Great Falls audiences would likely have turned out for this operetta in only modest numbers.11

The people of Great Falls, energized by the war, may have shared widely held racist attitudes toward the Japanese, but their enthusiasm did not translate into anything approaching wartime hysteria. Instead, residents focused their attention on home-front projects that supported the war effort. Camp Fire Girls, for example, figured prominently in the collection of scrap grease to preserve the glycerine that could be salvaged from fats for use in explosives. The girls had collected more than six tons—12,700 pounds—of grease by November 1942, and were reported to have obtained some ten tons of it by March 1943.12 Neighborhood signs appeared on homes throughout the city to designate collection depots where donors, who received three cents per pound, were encouraged to deliver their waste fats. Or, they could call for someone to pick it up.

The 625 Great Falls girls in Camp Fire, assisted by as many as 275 adult volunteers, including Camp Fire board members, Camp Fire leaders, and parents, were commended roundly by the Great Falls Leader. In a front-page headline, the paper reported: “Falls Girls Doing Major War Job” and went on to note that local Camp Fire Girls had received special recognition on a “nationwide Columbia broadcast” that morning for their grease collection work.

The same article, which appeared on a July Saturday, announced an intensified grease drive for the following Tuesday, Wednesday, and Thursday. The Leader said adults would drive cars throughout the city during the three-day campaign and Camp Fire Girls would call at individual homes.13

In addition to grease, the Great Falls community supported scrap metal, rubber, and paper drives. The Cascade County Salvage Committee was reported to have

Adults and children alike supported the war effort domestically, participating in collection drives for scrap metal, rubber, paper, and grease. They were urged to do so by such advertisements as the one at left, which appeared in the Great Falls Leader on June 25, 1942.

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LAST CALL! SELL U.S. YOUR SCRAP RUBBER NOW!

NATION-WIDE scrap rubber drive ends this Sunday, June 30

Your country needs your scrap rubber... It may avert gas rationing

Any Standard Oil Dealer or Agent will pay you $1 a pound for your reclaimable scrap rubber, such as: Tires, tubes, boots, cubs, but waste batters, goodyear have anything worth of rubber. BRING IT TO YOUR STANDARD OIL DEALER

AUSTIN'S SERVICE STATION
426 FIRST AVENUE NORTH

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STANDARD SERVICE
Staet at which you purchase gasoline

STANDARD OIL COMPANY (INDIANA)
As local Girl Scouts collected grease by the ton and one eleven-year-old boy volunteered his father's rubber fishing boots, even the 1942 first place winners of the Great Falls Pet and Doll Parade (left) displayed their support with Victory Stamps suits. All smiles, from left, are Beverly Burns Murray, June Elcy Showen, and Betty Lou Childs Rodano.

obtained 2,240,498 pounds of such materials by October 22, 1942. One story related that in a gesture of patriotic enthusiasm, an eleven-year-old boy had thrown his dad's fishing boots into the scrap pile. Repenting his rash act, the youth attempted to obtain a certificate of authorization to purchase replacements, but rubber boots could not be had without demonstration of need. Recreational fishing apparently was insufficient justification.

To assist the scrap efforts, 250 Teamsters volunteered to drive trucks provided by the county, city, and the local headquarters of the WPA. Scrap yards in Great Falls were piled so high that some voiced doubts there was any need for it all, but the doubters were assured that shipments from the Great Falls yard had already begun and that the scrap would indeed go into the war effort.

Area farms also yielded massive amounts of scrap metal. Abandoned mining camps, with their ghostly “old hoists, or crushers, tramways and mills,” proved rich in scrap metal. Even the artillery on the courthouse grounds went into the collection heap. The Civil War-era cannons, weighing 5,985 pounds each, were “Destined to ‘fire’ again ... at a more ruthless enemy,” the Tribune observed. The empty granite gun mounts, left as they were, remained vacant for two decades after the war. Not until 1965 were two other Civil War cannons obtained and set in place.

Support for the war effort was practically universal throughout the war. David Davidson, a longtime resident and prominent Great Falls businessman, remembered his mother’s work with the local Greek War Relief Agency. Recalling the era’s numerous volunteer organizations and prevailing enthusiasm and military support activities, he likely was correct in judging the community to have been “pretty close to 100% behind the war effort.” Men and women of all ages were actively involved on the home front. In addition to helping distribute blackout rules, local Boy Scouts regularly participated in waste paper, scrap metals, and scrap rubber collections, and were often called upon to distribute posters and leaflets advertising defense bond drives and savings stamp sales. In addition to their grease collections, Camp Fire Girls supported the war with other activities such as cutting cloth squares for a wool blanket destined for the Red Cross. Blue Bird girls made a box of cookies “for a young soldier,” and Girl Scouts attended an “institute on civil defense” where, among other things, they learned how to extinguish fires properly. As their “service to others,” Great Falls Brownie troops spent two weeks collecting coat hangers for use in the dayroom at the army air base.

Voluntarism abounded. By late February 1942 no fewer than four hundred women had signed up for civil defense work, and one women’s group—the Athena Sorosis—proudly proclaimed that all of its members were involved. Besides the standard eighty hours of required classroom preparation, women in civil defense could take

16. Ibid., October 4, 1942, p. 11; Charles B. Snyder to Senator Mike Mansfield, June 17, 1965, Civil War Cannons Memorial Scrapbook, Cascade County Historical Society Archives, Montana Room, Great Falls Public Library, Great Falls, Montana (hereafter CCHS).
18. Great Falls Leader, November 5, 1942, p. 4; ibid., February 26, 1942, p. 4; Great Falls Tribune, November 24, 1942, p. 4; Great Falls Leader, November 3, 1942, p. 4, December 9, 1942, p. 8.
20. Lois Nicholls, interview by Lana N. Furdell, July 1995, in author’s possession; Claire Angeliasta Del Guerra, interview by Laurie Mercier, OH 107, 935, CCHS; Fred Nicholls, interview by Lana N. Furdell, July 1995, in author’s possession; Lorado Maffit, interview by Laurie Mercier, OH 109, 916, CCHS.
condensed, twenty-hour classes in mechanics, nutrition, or telegraphy. A special "Canteen Corps" prepared meal trays to alleviate staff shortages in the local hospitals, and the American Association of University Women and a men's organization helped furnish the Officers' Club at the local air base. As plentiful as were volunteers, labor was in short supply. Female as well as male workers were in great demand. While Great Falls lacked the aircraft plants and shipyards often associated with the image of "Rosie the Riveter," women workers entered an even more intensely male occupational bastion—the Great Falls smelter. Work there was heavy, dirty, and dangerous, and women had not been employed in the copper and zinc plants prior to the war. Anaconda Company records for the Great Falls operations indicate that relatively few women found work at the smelter, even during the war years. Employment statistics were recorded by gender on a monthly basis beginning in July 1944. Of a total 1,605 workers employed at that time, 45 were women. At war's end that number fell off abruptly. Only 27 women were counted among the 1,394-member work force on October 1, 1945. Women smelter workers were a curiosity at first. Smelterman's wives worried about the possibility of illicit affairs, and one woman later recalled, "We began to wonder about the respectability of these women." She added that such attitudes did not persist, however, because those employed were local women. "We knew them," she said, and "thought it was alright [sic]." The record is vague on precisely what kind of work women did in the Great Falls smelter. One veteran smelterman remembered that the women were good workers and were paid union wages. He believed they "got the easiest jobs," however. Another man recalled that women mostly "did cleaning." Still another said they performed tasks "that to me would have been godawful heavy for women," and that "they actually, all told, did a damn good job." "Who Says It's a Man's War?" read the title to an article appearing in the Copper Commando, the Anaconda Company's wartime "official newspaper of the Victory Labor-Management Production Committee of Butte, Anaconda, and Great Falls." The "two gals" featured in the July 1943 article had replaced two male messenger boys from the Great Falls plant who had gone to war. The caption to an accompanying photograph said the women workers demonstrated that "it's everybody's war." On the same date the "Smelter News and Notes" column in the Great Falls Leader reported "a rumor that there is to be a girl in the drafting room." Sexual harassment in the workplace was not a public concern in those days, but the columnist speculated that "Now the boys will have to buy an Emily Post on 'office conduct,' and those stories that originated in the engineering
department will be a thing of the past.\textsuperscript{22}

Male and female workers alike were in great demand in defense production, and thousands may have abandoned Montana's mining and metals industries to seek higher wages on the West Coast and elsewhere.\textsuperscript{23} Long before America entered the war, Great Falls community and business leaders, like their counterparts across the nation, had sought location of a government-sponsored airplane factory or other military production facility for their city. Despite certain attributes, they learned that the prospect was slight. Level ground and abundant electric power were prerequisites. Neither was a problem for Great Falls, situated as it is on a flat plain and in close proximity to hydroelectric dams at the nearby falls on the Missouri. Other requirements, however, such as the availability of manpower, raw materials, machine tool factories and forge shops, and the further stipulation that none of these be any closer than two hundred miles to the Canadian border, posed significant difficulties for the community. As a result, neither Great Falls nor any other Montana community secured manufacturing facilities of the sort that sprang up along the West Coast, where conditions were more favorable.\textsuperscript{24}

In summer 1941, however, community leaders learned that the Army Air Corps was considering locating a base in Great Falls with a potential personnel force of four thousand airmen and a $1 million-per-year impact on the city's economy. Interest focused on a large tract east of town. The "Green Mill," a notorious depression-era nightspot, was the only facility located there and city business interests took steps to secure the property.\textsuperscript{25} On the opposite side of town, the Seventh Ferrying group operated from Gore Hill, and the Thirty-fourth Sub-Depot, a supply and equipment center, was situated at the fairgrounds. The sub-depot and some of the Gore Hill operations were ultimately relocated to what came to be called East Base.\textsuperscript{26}

IF WORLD WAR II "TRANSFORMED" THE WEST, AS ONE HISTORIAN HAS CLAIMED, EAST BASE DID JUST THAT FOR GREAT FALLS. The transformation was greatest on the West Coast, where wartime production plants and military facilities worked immense socioeconomic change in Washington, Oregon, and California. War industries stimulated new migrations, greater ethnic diversity, and, for the West, cultural autonomy and a sense of liberation from "colonial" dependence on the East.\textsuperscript{27}

By contrast, Montana and other states of the western interior did not experience the same degree of transformation. Few production facilities or military bases of any size were established in the interior West during the war. Billings received a temporary boost when the Pacific Car and Foundry Company leased the fairgrounds facilities there to assemble "tank recovery" vehicles, but the work, prompted by an overload situation at the company's Renton, Washington, plant, proved temporary. Companies in Billings and Butte received defense contracts, but little direct military production centered in Montana. With the exception of East Base at Great Falls, there were no sizable military bases sited in Montana. As a result, of all of Montana's communities, Great Falls experienced the greatest wartime social and economic transformation, and the subsequent emergence of the Cold War insured that a Great Falls economy tied closely to the military would continue well into the future.\textsuperscript{28}

Great Falls warmly welcomed East Base and its military personnel. People donated everything from books and athletic equipment to clothes hangers and furniture. Nor were the social needs of the new airmen neglected. Chamber of Commerce members were advised that the army "will have to depend upon the people and agencies of Great Falls to supply the social life and recreation for its men with passes."\textsuperscript{29} The Army Air Corps was not disappointed. Social opportunities abounded. Nurses from Deaconess Hospital hosted weekly "socials" for the servicemen. The YWCA sponsored weekly dance lessons for military men, so that they might better enjoy the USO dances. When the call went out, no

\textsuperscript{22} "Who Says It's a Man's War?" Copper Commando, July 16, 1943, p. 12; Great Falls Leader, July 16, 1943, p. 5.

\textsuperscript{23} Scott C. Loken, "Montana during World War II" (master's thesis, University of Montana, 1993). 33. Montana's population numbered 463,000 in 1945—95,000 fewer than the 556,000 listed in the 1940 census. By 1949 the state's population increased to 562,000, surpassing the prewar figure, and grew to 591,000 by

\textsuperscript{24} 1950. Harold J. Hoffich, The Economy of Montana (Bozeman, Mont., 1951), 16.

\textsuperscript{25} July 25, 1940, Chamber of Commerce file (hereafter Chamber file), CHCS; Loken, "Montana during World War II," 25-33.

\textsuperscript{26} Chamber file, August 27, November 5, 1941, CHCS.

\textsuperscript{27} Jane Willits Stuwe, East Base 1940–1946 (n.p., 1974), 35.

fewer than eight hundred Great Falls women registered as “victory belles” to act as female partners at USO dances, and hundreds more would volunteer in the months to follow. The local musicians’ union, which supplied a four-piece band for the weekly dances, advertised for a volunteer “songbird” with the promise of “a good time guaranteed.”

Servicemen and civilian workers attached to East Base came from all over the country, adding a new dimension to the community’s social life and cultural diversity. A newspaper column reporting on East Base matters included the following item: “From the Q.M. comes the word that the weapon-begotten look on Corporal (Tex) Stewart’s face is caused by the fact that his bride-to-be is a resident of Great Falls and therefore a Yankee. (P.S. His dad said ‘no,’ but love will conquer all.)” No doubt Corporal Stewart’s dilemma was not unique. Many a match united Great Falls women with servicemen of diverse regional and cultural backgrounds, and some chose to make Great Falls their permanent home. As longtime resident Robert Allen observed, “a lot of them settled down and filtered into our own population now. So they’re natives.”

With the coming of East Base, the city’s population increased dramatically, from 29,990 in 1940 to an estimated 35,000 by the end of 1943, which in turn promoted a serious housing shortage. A war housing grant produced a hundred new units, bringing the total of new units to three hundred, but it was not enough to accommodate the 5,000 new people. Savings and loan advertisements assured residents that the federal government was aware that war workers were short of housing and employed a variety of programs to assist with financing expansions and new construction. Government-insured mortgage loans were not readily available during the war, however, and home building, with labor and materials diverted to other uses, was generally curtailed. The War Housing Administration did authorize an additional one hundred units, but delays postponed final approval for construction. In May 1945 the city’s chamber of commerce held discussions “concerning the acute housing situation,” but with increasing numbers of military personnel and East Base–associated civilian workers, housing remained in short supply throughout the war years.

LIKE PEOPLE ALL ACROSS THE NATION, GREAT FALLS RESIDENTS FACED OTHER SHORTAGES AS WELL.

Montanans especially bristled at tight gasoline rationing, which began on December 1, 1942. Longer traveling distances than in other parts of the country and visibly plentiful supplies of petroleum locally made restrictions seem extreme. Drivers, allotted only four gallons of gasoline per week, could drive first no more than forty and then only thirty-five miles per hour. The Great Falls Tribune reported that all the city’s car owners had filled their tanks in anticipation of rationing. Nine thousand “A” books, indicating “no occupational need” and entitling holders to only four gallons per week, were issued in Cascade County. Two thousand other people received “B” or “C” books, depending upon demonstrated need for greater amounts. Those who drove more than six miles per day to and from work qualified for “B” books, while truckers, ambulance drivers, doctors, veterinarians, government officials, and others in occupations deemed “essential” qualified for “C” books. Farmers and ranchers were allowed unlimited bulk purchases of gasoline for use in agricultural production.

Gasoline rationing was intended mainly to save rubber. The anticipated takeover of rubber plantations in Southeast Asia and the Dutch East Indies by the Japanese prompted fear of an immediate wartime shortage. From the start it was evident that new tires would soon be unavailable. As one reporter put it a few days after Pearl Harbor, the use of synthetic rubber in tires was still in the “magazine article stage.” As of January 5, 1942, new tires were officially no longer available to the general public. “Recaps” were also scarce, and prices were frozen. Tire thefts soon became common, and the Great Falls police department advised residents to take precautions. Cars should not be parked outside all night; trunks should be locked; and serial numbers on tires should be recorded to assist recovery in the event of theft.

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33. Minutes of Chamber of Commerce meeting, May 17, 1945, Chamber file.
EDITOR’S NOTE: In winter 1942, Great Falls, Montana, became the first stop along a transcontinental route for aircraft and other war matériel sent to the Russian army through the Lend-Lease Act of 1941. Based far inland from the coasts, Great Falls provided an ideal location for keeping secret the United States–Soviet exchange, and the city’s prairie climate offered plenty of clear flying.

Navigating by sight and radio, pilots of the Great Falls–based Seventh Ferrying Group of the Air Transport Command (ATC) flew U.S. planes via Edmonton, Alberta, Fairbanks, Alaska, and other refueling stops to Nome, Alaska, where Russian pilots took over and flew them on to Siberia. According to those present at the time, it was not unusual to hear Russian spoken in the streets of Great Falls, where U.S.-based Soviets inspected aircraft fitted to Russian specifications and markings before transport.

Over country Brigadier General Dale V. Gaffney, commanding general of the Alaskan Division of ATC, called the “toughest route in the world,” 7,926 planes were delivered to Fairbanks. Only 68 were lost in crashes—an extraordinary feat for pilots flying more than 2,200 miles without radar, often in the extreme cold of arctic winters, and over mostly wilderness terrain.

In 1944, Great Falls Tribune reporter Pat Brennan toured this northern supply route as a guest of the Alaskan wing of the ATC and submitted eyewitness accounts of the efforts that went into maintaining a wartime “lifeline” to Russia. This, the eighth in a series of nine illustrated stories in the Tribune, ran on November 19, 1944. Patricia Brennan Taylor today lives in Wichita, Kansas. She worked for the Tribune from December 1939 through early 1951, when she married and moved to Denver. She had been editor of the Tribune’s Montana Parade magazine for six years and also wrote feature articles for the newspaper.

MONTANAN ONE OF MANY

by Pat Brennan

Sgt. Earl Sutton, native of Montana, says he wants to stay at the Nome Army Air base, Alaskan division, air transport command, this winter because the basketball league promises to be a good one.

He is one of the many men at this base, 1½ miles from the Bering Strait, who have discovered that although they seem to be perched on the edge of the world, they can
accept the challenge of a terrible monotony and by ingenuity combat it. Because this bare and windswept installation, snowbound in the winter, stark and naked in the long summer days and mud bogged in other seasons, is like the City of Nome—there despite the elements—any improvement or addition seems a major event.

They say, “Nothing happens here but planes and snow and mud.” And in the next breath they tell you of the 33-inch arctic trout they find in the Pilgrim river, of the good fishing in Snake river behind their barracks.

They say, “This place is rugged, but have you seen the poor devils on the chain?” as they escort visitors around their base, for which the river was moved twice to lengthen runways.

They say, “There’s nothing here to do” and then show off the new service club with its stained walls and the hand-made furniture. They tell how the officers built their own club, with its beamed ceilings, hand-hewn, and the large brick fireplace and polished floor. They tell about the new chapel, built by the men, and speak with sadness of their former chaplain, who died alone one night in a storm when lost just outside his quarters.

They want to come home, and in the next breath say it isn’t bad, it’s better than combat or living at a weather or observer station, or being assigned to an emergency field. They ask about home and in the next sentence tell of hearing “Tokyo Rose” by short wave over the Alaskan post radio station in town.

Nothing but planes and snow and mud. But those planes, whose engines make a constant roar above the ever-day business of running an army base, will soon carry lend-lease aircraft circling out across the strait and then to Siberia. They are piloted by Russian pilots, serviced by American and Russian mechanics, and the men who fly them kill their monotony by hunting and fishing, music and sports; just as the Americans do.

Even the snow has some good. By January and February, which the commanding officer, Lt. Col. Richard Hackford, says is the best flying weather, the runway is frozen solid and smooth with packed snow. The blizzards, which at times have a wind velocity of 70 miles per hour, have calmed down; the ground blizzards, when men tie down the planes and themselves on the runway, are over. Supply planes, contacting outposts, can land anywhere on their skis.

The pilots tell of winter flying hazards, when the cold, clear sky is the same color as the snow covered mountains and planes, when temperatures on the ground and air vary from 10 below to 30 above. Winter modification facilities have eased their troubles somewhat, but every day is a challenge for them.

Lt. Gene Hirst of Billings, former Montana State university athlete, is one of those pilots based at Nome who are flying A.T.C. supply and mail planes. He trained with Lt. Rex Stage of Great Falls in the southwest.

Two winters ago this C.A.A. field had no hangars and when the A.T.C. moved in there was one. The original troops, coming in the fall of 1942, lived in tents. Later they had huts. And in the winter they were completely covered by drifts, and here and there tunnels were dug through the frozen snow. When the thaw came it was acres of mud, cut by trucks and bulldozers moving in to go ahead with construction. They still are building, as operations continue around the construction gangs and their machinery.

A Montanan helping on that construction is Ed Norgate, at Nome for three months, who had been working in the oil fields near Cut Bank and Roundup.

Sutton and the others, some of whom have been there over a year, go on with their jobs, living in what they say is luxury compared to the first days. Sutton, son of Mr. and Mrs. James J. Sutton of South Dakota, was born in Winnett. He carried The Tribune while going to school and played baseball on Fort Peck and Glasgow high school teams. His other interest is music, and he was vocalist for the Wolf Point radio station.

As the A.T.C. planes fly from Fairbanks they rise above the high, capped ranges which are so covered with snow they look like peaks of salt. Then they go over tundra and muskeg, sprinkled with half-frozen lakes in the fall and the pattern of ice is like Swiss decorations on a northern ski sweater. In winter it is all white, with the thin sky running into the snow-covered horizon. As they leave the base they circle out over the strait and look down on Nome, which spreads out close to the beach, some of it looking as if it had been washed up there.

Nome itself is another example of the fascinating old and new of Alaska. The wobbly houses, whose foundations are weakened by thaw and freeze; the natives’ shacks, salvaged from fire and disuse; the modern post office and chrome and leather in the new brick hotel facing the sea; the new schoolhouse, built after the big fire, where Sutton’s basketball tournament will be played, and the trading post stores, selling everything from ivory souvenirs to grapefruit, from mukluks to expensive perfumes.

Whether or not the “Alshib” route is developed commercially after the war, Nome won’t care, because there will always be miners and trappers and the natives, and the boats will come in summer and the bush pilots will fly in winter. Dog sleds and, to borrow from the army and construction gangs, cats will go over the snow. But if it does come Nome will be ready because Nome knows booms.

The story of the Seventh Ferrying Group of the Air Transport Command is the subject of an exhibit, Unsung Heroes, currently on display at the Cascade County Historical Society (CCHS), Paris-Gibson Square, Great Falls. CCHS is the official repository for the objects and archival records of the Seventh Ferrying Group.
O'ER THE RAMPARTS WE WATCH

UNITED STATES

ARMY AIR FORCES

Front cover:
C. M. Russell,
The Life Saver, 1910

Right: War Department poster, 1944
Below: World War II ration book

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and even the women pilots themselves did not know to what extent women were capable of this mission. Women, by and large, were just grateful for the opportunity to fly, and to contribute to the war effort.

Commanding officers and men in control of transition schools and operations doled out the flying trips to women in light aircraft, winter trips in open cockpit airplanes, and trips that had difficult transportation in returning to home base. Most women did not complain since they had joined the WASP to fly, and they were given this opportunity. Some ferrying group operations were more reluctant to give women flying deliveries than other bases.

What were men to do with seven, then five more women pilots, then seven more women civilians who arrived at an Army base to fly airplanes at this entirely total men-pilot ferrying base? By edict, the bases were required to accept them; but it took another directive from the top to get them into the air. General William H. Tunner to the rescue!

General Tunner championed the women pilots. As head of the Air Transport Command, he gave all bases an order that the women pilots were to be treated equally and advanced in training in a one-woman-to-ten-men ratio. The Fifth Ferrying Division at Dallas was reprimanded for being slow to upgrade women pilots into heavier aircraft.

Only time and proven ability gave women pilots the opportunity to fly every type of aircraft that United States factories turned out during World War II.

Some women had impressive backgrounds in aviation prior to World War II. Opportunities to advance to heavier aircraft were given to those women who had more experience; occasionally transition to heavier airplanes was given on the basis of seniority. In 1942, as today, women had to prove their ability to fly.

The women advanced as their record testified to successful missions, and Tunner’s directives to the bases enabled women to have more opportunities and more equal treatment in advancement to heavier airplanes. Women chose, or were chosen, to fly bombers or fighters; usually not both.

Overseas Delivery

The first summer of the war, General Tunner set up the route from Great Falls, Montana, to Fairbanks, Alaska, by which five thousand planes were delivered to our then ally, Russia.

WASP wanted to take the aircraft on to Fairbanks, Alaska, but this delivery was made by the men stationed with the 7th Ferrying Group at Gote Field, Great Falls, Montana. Women pilots in the USA wanted to meet the Russian women ferry pilots the WASP had heard about who came across Siberia to pick up the airplanes the WASP had ferried from the Bell factory to Great Falls, Montana. The WASP were given various excuses for not being allowed to fly the ship on to Alaska: 1) No facilities for women on the Alaska run; 2) Too hazardous (though men did it; and Beryl Markham and Amelia Earhart, among others, had flown under similar conditions); 3) Women by congressional edict were limited to the continental USA, yet several WASP based at Romulus, Michigan delivered ships to Canada since they were close to the border.
Though no WASP-piloted overseas flight was ever made, the women did a magnificent job at home. They freed many men for overseas deliveries. They were checked out in the most difficult of all ships, the pursuits. They brought two thousand P-47s away from the factory. No men were needed there at all. By the end of September 1944, WASP were delivering three-fifths of all pursuit planes.

Housing
Since the women pilots were civilians, paid by civil service, there was an awkward period of adjustment for at least the first three groups of women who arrived at these four ferrying bases.

The women lived wherever they could find a room off base. Gasoline rationing was in effect and transportation was difficult.

Women were eventually housed on the bases, and given opportunity to eat in the Officer’s mess hall, and allowed access to the Post Exchange (PX) and the Commissary (general merchandise). Later the WACs came and were billeted with the women pilots at Dallas.

WASP WINGS
WASP, then known as WAFS, assigned to Air Transport Command, Ferrying Division, wore Air Transport Command Pilot Wings until the regulation WASP Wings were issued.

Official wings were provided for WASP graduates in December, 1943. When officials of the AAFFTD at Houston realized, shortly before the graduation of Class 43-W-1, that the graduates would receive no wings, the unofficial insignia were hastily contrived for Air Corps Pilot wings available at the Ellington Post Exchange, redesigned by Leoti Deaton and Lt. Alfred Fleishman to make them suitable. The Air Corps insignia was replaced by a smooth shield bearing the class designation with a scroll above the shield bearing the detachment designation “319”. The detachment designation was changed to “318” beginning with Class 43-W-3. The graduates of classes 43-1 through 43-7 received their wings as a gift from Director Jacqueline Cochran.

Class 43-W-8 received the first official lozenge adorned wings, in a shining finish which later gave way to the satin finish lozenge.
There were no women pilots stationed at the 7th Ferrying Group, Great Falls, Montana, or 4th Ferrying Group in Memphis, Tennessee.

The Republic Aviation Corporation at Farmingdale, Long Island, New York and Evansville, Indiana factory had a contingent of women pilots who rotated in on temporary duty assignments (TDY).

Transitions
Some WASP did not attend pursuit school, but transitioned at their base, or learned to fly pursuits at the factories.

The Republic factory gave experienced and qualified women transition on the P-47 at the factory. The Niagara Falls Bell aircraft factory gave transition check-out in the P-63 Kingcobra to those women and men pilots who had previous flying time in the earlier model Bell P-39 Aircobra.

The Lockheed aircraft factory was at Long Beach, California, and, in the early days, some of the women went on TDY just to be checked out in a P-38. Helen Mary Clark went from Wilmington, Delaware for this purpose. Later, at the Lockheed modification plant in Dallas, Texas, women were given transition along with the men in ground school, cockpit checks and practice. There was a great need to move these airplanes to ports of embarkation, and women helped accomplish this.

Base Rules
Rules were different for pursuit pilots at each base where the women worked. At Long Beach 6th Ferry Group you could fly fighters at night if you were checked out.

At Dallas 5th Ferry Group, night and instrument flying in fighters was forbidden; instrument training was kept up, but used only in emergencies in fighters. Night
o’clock and the head man on the flight line said I wasn’t going anywhere. They found the sump frozen solid. I sat in Denver three days.

The plain clothes investigators said it was water in the gasoline. The CIC investigators told me they could determine three things: 1) If the water was merely condensation in the gas storage tank, it would all be distilled water; 2) if it wasn’t distilled water, the water had been put in deliberately; then they could look for evidence of water in the gasoline where the tanks were topped-off in Denver, and 3) they could look for water in the gas at Amarillo, Texas.

Kay remembers that her CPT instructor told her Mother, but never told her, that she had a good feel for flying and that she should continue in aviation. He said that many of his male students were too rough on the controls. After Kay earned her Private Pilot’s license, CPT closed to women. He phoned Mrs. Gott to tell her that one of the ten owners of an airplane (a Porterfield with a 65 hp Lycoming engine) was going to war services shortly and would sell his share for half price — fifty dollars. Kay’s Aunt Doris put up the money, and Kay went on to earn a Commercial Pilot’s license in this airplane, flying Civil Air Patrol to build up the required 200 hours.

Kay’s next step was working on a Flight Instructor Rating. This was nearly completed when she heard that Jacqueline Cochran wanted Commercial-licensed women pilots to fly for the government. She reported for training to fly "the Army way" in December 1942, and was in the second program admitted to Cochran’s Women’s Flying Training Detachment School at Houston, Texas.

Kay delivered training planes to schools for nine months before going to Pursuit School.
She qualified in the P-38 on November 29, 1944, and had a total of 17 hours of P-38 flying time before deactivation of the WASP. In that time, she delivered three P-38s. Her last flight was delivering a P-38L from Long Beach to Dallas on December 13, 1944, picking up a North American F-6K at Dallas and delivering it that very same day to Meridian, Mississippi. VE Day (Victory in Europe) was 5 May 1945 — more than four months away. VJ Day (Victory in Japan) 14 August 1945 was eight months away!

After nearly a year ferrying airplanes to training schools I was assigned to Instrument School at Love Field in Dallas. I worked on my “blind” flying ticket on the B-18 Bomber, the Douglas DC-3 and the Douglas C-47. The last two were both cargo work-horse airplanes with twin engines — very reliable, and easy for me to fly. Those Douglas airplanes are still flying today, some 50 years later.

In the Link instrument trainer, a box-like affair, we flew “make believe” in safety in the hangar. Nowadays this very sophisticated machinery is called a flight simulator; and the operator is able to control external things like wind, velocity, fuel amount and air currents, as well as trace your flight path with a pen on the map. Thus you learn from any mistakes, and have a visual record of what you actually did in simulated flight.

For my final exam in the Link, I bracketed the beam, listening to the “A” and “N” station call in Morse Code, thereby I knew I was approaching the Salt Lake City

Kay Gott not in uniform this day, stands by a row of P-51Ds, her favorite plane to fly.
I had just succeeded in difficult instrument school. Why should I fear failure in pursuit school? No way was I going to fail! I was a good pilot. A good ferrying pilot.

***

My first job after obtaining that Instrument Card was an assignment to copilot a C-47 twin-engine cargo airplane to Fort Wayne, Indiana. The pilot was “hung over,” so we did not leave Dallas the day the orders were cut. Next day, we took off for Scott Field near St. Louis, Missouri, the first refueling landing. I was supposed to be checked out on the landing in a strange airfield. Well, the pilot flew the entire time, landed the airplane and instructed me not to touch the controls. On the next leg, the pilot again flew the airplane and again made the landing. By now, I was really protesting.

When we “sold” the airplane and inquired about transport back to home base Dallas we discovered we would have to RON.

The pilot drank all evening. I had one beer. He bewailed the fact that his “wife didn’t understand” him. I got in the elevator to go up to my room and he shouldered his way into the lift. When we arrived at my floor, I pushed the “down” button and went to sit in the lobby. If I had to, I was prepared to spend the night in the lobby.

Douglas C-47 Cargo Skytrain wings its way to its destination.

airport from the North East and that I was high over the Uinta Mountains of Utah to let down over flat Salt Lake. Thus, I earned this part of my instrument card on an extremely difficult course.

The final exam in the air was a practical test flying a C-47 as first pilot. I was to deliver airplane parts: first a tire to Tulsa, Oklahoma, then on to another delivery in Oklahoma City, on to Fort Worth, Texas, and finally back to home base at Dallas. All of this while flying a C-47 under the hood with a blackout curtain hung over the window and all around me. This is roughly a rectangular course.

Flying “blind” is without visual reference to the ground. An observer sits in the righthand seat and watches the progress and the skill of the pilot flying the course, as well as accuracy following the route. A most important job for this observer is to keep an eye open for any traffic.

At home base, I did not have to land the airplane “blind.” On the last leg coming into Dallas flying the beam, I had to come within 200 feet of the end of the runway. Now some years later, I wonder and marvel at just how I managed to do all this and with the equipment of 1944. But I passed both Link and practical tests and earned my Instrument Rating in February 1944.

I was confident in my ability to fly — no longer unsure about my competence.

P-51D Shimmy IV, flown by Col. Chet Sluder in Italy - he found Kay had delivered this plane from the factory to port of embarkation.
think the desk clerk was on my side. The pilot finally left, and I went up, alone, to my room.

When I got back to Dallas the next day, I stormed into operations where I knew one of the officers who assigned trips and was dating my WASP roommate. I told him never to send another WASP on a trip with that man.

In March 1944, right out of pursuit school, I delivered three P-51s from Dallas to Newark and one P-40 Kittyhawk from the Buffalo factory to a training school in Florida. My total flying time for the month of March was 39 hours, 45 minutes.

In April 1944, I was stuck on the Dallas shuttle of P-51s from the North American factory at Hensley Field between Dallas and Fort Worth. This consisted of checking the ship while it was on the ground to make sure it was put together correctly; making a 30-minute flight over Hensley; flying on to Love Field, Dallas; and then an interminable wait for ground transportation back to Hensley Field to do the whole thing over again. The wait was for all of the other shuttle pilots to come in, “sell” their airplane to operations, and get on the bus. No wonder no WASP enjoyed being put on the shuttle run at Dallas!

Taking a pursuit aircraft right off the assembly line to fly it to some destination without its ever being test flown meant you were the test pilot for the first 30 minutes or so, until you found the airplane “airworthy.”

I always carried a snub-nosed screwdriver in my flight suit as a standard piece of equipment. The one-piece flight suit had two pockets below the knee, right in front, and the screwdriver banged against my sore shin (scars from college field hockey) all of the nine months I flew fighters. I note women pilots flying in later years have nearly the same one-piece suit “shucks,” no drop-seat, but the pockets are

Houston December weather and Kay Gott in fleece-lined suit for open cockpit flying. No gloves were issued.
Women in Pursuit sensibly on the sides where they belong, below the knee. Some other pilots used a coin, rather than a screwdriver, to open all the inspection plates and plunk your finger across all of the cables — just to make sure they were taut, and went somewhere.

We learned never to trust gauges, and never trust the flight-line attendant. Planes were always coming and going, with no one to keep track. It was your life. Visual inspection involved a walk completely around the craft before you got in the cockpit to check the controls to make sure that all the cables were hooked up correctly and the coolant wasn’t on the ground. Then you climbed up on left, then the right wing, opened the gas caps and stuck your finger down to feel if there was “wet” gas there. Once you climbed into the cockpit, there were many more checks.

Remember, this was a time when people were building airplanes who had never done it before; qualified help was scarce; and inspectors were just learning their job.

Being on a shuttle run, pilots do not log very much flying time. That April 1944, I only had two other trips with P-51s to Newark, New Jersey, then a P-40 to Louisiana training school. All total, I only logged 26 hours, 30 minutes flying for April.

I had been taking P-51C models from the Dallas factory to the modification plants which were at Kansas City and back in Long Beach to the North American factory. The modification was the “bubble” canopy, which enabled pilots in combat to have unrestricted vision. The Mustang P-51D with the bubble was proved a valuable war weapon.

All of May was spent at Orlando learning to be an “Officer” in the United States Army Air Corps! This never came about, so it was a waste as far as flying went! All women pursuit pilots felt the same about that “lost” month when it came their turn to go to this Army Air Force School of Applied Tactics.

Florene Miller, WASP Squadron leader at Love Field keeps everyone marching past Basic Trainers.
June 6, I took a P-51C from Dallas to Kansas City. I logged 28 hours, 20 minutes flying in June. It is interesting to see that one of the trips was in a Basic Trainer, the BT-13. Our job was to move airplanes; and if a pursuit pilot was qualified to move BT-13s and they needed to be moved, that's your day's assignment!

In July, things picked up for this ferry pilot. One incident in the 48 hours logged time for July was flying a P-51C from Dallas to Long Beach for the modification to “bubble canopy.” The tail wheel went flat and the airplane started pulling to the right upon settling on the runway at Long Beach. The plane and I waltzed off the runway through the grass at a very high speed, away, fortunately, from the flight line where we would go smashing through the neat long rows of airplanes parked there. When I could catch my breath and finally get the airplane stopped, here we were, sitting in the middle of the field. I called the tower and asked would they please send a jeep out for me, and a tow for the plane?

“Flying is the second greatest thrill known to man;
Landing is the first.”
Author unknown.

Shooting landings meant practice time: either "touch and go" without stopping the aircraft, or coming to a complete stop, taxing back to the start of the line, and heading down the runway to have another "go around." Five landings and five take-offs was standard procedure for refresher course, or renewal of skill in the delicate art of landing.

I always carried a slide rule on a piece of string around my neck to compute air speed, wind, fuel and mileage. I figured these cross-country trips by arithmetic first, then checked my final figures on this circular American Airlines E6B navigation tool. I never trusted my arithmetic; and if the two figures didn’t jibe, I would do the whole thing of figuring the trip legs over again, until both computations came out the same. This was the evening’s homework. With the exception of weather report, especially noting winds aloft for the most favorable flying altitude, I was ready to be cleared from the field by 8 a.m. I usually was “right on” with my ETA. Homework did pay off!

One lucky day I was put on orders for a ferrying trip to deliver an airplane through my home town. I picked up the fighter in Niagara Falls, New York, to take to Portland, Oregon. There were no wing tanks and no belly tank. This meant limited fuel, which also meant lots of stops. Among the rules there was a safety one that said you had to land with half-an-hour fuel reserve. So I began the long day with short hops across the United States — fuel hop to fuel hop. These pursuits only gulped high octane. And I was in a hurry to make my Idaho stop that evening. I asked if Rock Springs, Wyoming, had fighter octane and was assured they did. Eager to spend the night with my folks in Idaho, I took off from my fuel stop at Cheyenne for Rock Springs.
I landed at Rock Springs to discover they had low octane gas only. That left me two choices: keep on and risk it, or return to the last stop, tank up, and skip Rock Springs. I didn't even consider using low octane, since these Bell craft did not take gently to tampering, and had a reputation for not being kind to that sort of treatment.

Furious at having been given wrong information at the stop before Rock Springs, I was very reluctant to turn back. It was frustrating to wait and wait at each stop for refueling, as I had to do all day long. Besides, I could make the Idaho stop that night if I kept going. I jumped back in the plane, studied the map and decided I could go on.

I took off from Rock Springs, figuring that if I took a short cut off the airways, that is, off the designated flight path, I could make the next refueling stop.

Down the canyons of Wyoming, into Utah, eking out the petrol, turning on the downwind to the final approach at Hill Field in Ogden, Utah, the engine QUIT!

Since the gasoline is in flat tanks on the wings, when the airplane tipped to turn, there was no fuel reaching the engines. An airplane in front of me was cleared for landing. I called the tower for an emergency landing and the pilot ahead of me was told to pull up and go around the pattern again.

As I leveled off on the final approach, the propeller was still wind-milling, the engine coughed and caught, so I did not have to make a dead-stick landing. I even had enough fuel to taxi to the refueling ramp where the gas trucks were. Thank goodness, I did not have to be towed to the ramp. There I sat on the wing, quite shaken, and waited for a jeep.

When I went in to Ogden operations, I learned that I had cut a high-ranking officer out of the traffic pattern.

Feeling very guilty, I expected a reprimand. None came.

After waiting my turn for gas, I continued on to Boise, Idaho, and landed at Gowen Field, really pushing to make Idaho, for in fighters we were required to land a
half-hour before sunset. I had enough time to fly over my hometown and look down at my house. From Gowen Field, I called home, and my folks found enough rationed gasoline to come get me.

Next morning, I reported early to Gowen Field to continue on. Another rule is that you must be off the ground by 8 a.m. I got my clearance, checked the weather to Pendleton and Portland and all points between, and took myself and my flight plan clearance out to the airplane. Good heavens! Fluid all over the ramp under the plane!

The engine coolant had leaked during the night in the nippy desert air and was all under the airplane instead of in it, where it belonged. The hot engine had heated the rubber hose connections and during the cool night, the hose connections had contracted. Coolant, like Prestone antifreeze, is very viscous, and all of it just oozed out all over the ramp. Since Gowen Field had no pursuit airplanes, they had no coolant to replace what I’d lost.

Gowen Field was a B-17 base; and a squadron of WASP was stationed there to train the B-17 gunners how to shoot at a moving target. These girls were flying B-26s to keep ahead of the B-17s.

So I got to stay one more night in Idaho. They sent a B-17 down to Hill Field at Ogden, Utah, for the coolant. I called my folks to come get me again.

One of the men pilots who had left Niagara Falls with a P-63 the same time I did caught up with me at Gowen Field as they were replacing the coolant the next morning. He stopped for gas and told me he had pushed it to stay overnight in his home town, Ogden, Utah! He had planned this maneuver carefully just as I had planned to stay overnight in my town in Idaho.

As he left, he did a spectacular chandelle maneuver off the end of the Gowen Field runway, undoubtedly to impress those B-17 pilots, and then waited for me upstairs to take the lead to the next refueling stop at Pendleton. We flew down the gorgeous Columbia gorge, right over the river; but at the west end of the gorge where the gorge walls began to open up, I looked back to see him drift to the north. I called him to say that Portland was west ahead, but he said he’d never seen Mt. Ranier. After I delivered my plane at Swan Island Base in Portland and signed the papers over, he came in a half hour later.

My logbook shows I delivered this P-63 in Portland, Oregon, August 5, 1944. The next entry, August 6, I flew a P-51D out of Long Beach to Coolidge, Arizona, delivered it on August 9 to the European war port of embarkation at Newark, New Jersey. I then picked up another P-63 at the Bell factory in Niagara Falls, New York to fly to Fort Myers, Florida. I did not return to my base at Dallas Love Field until August 11.

When I picked up my mail at WASP barracks at Love Field, Dallas, I found a note to report to Headquarters. Would I get punished for cutting the high ranking officer out of the landing pattern in Ogden? Would I get the axe for running so close to “no” fuel? Would I have been reported by someone who saw me fly off the airways flight path? I just dreaded what was to come.

I guessed that I had irked the officer in Ogden, and that would probably be it, for I glimpsed him scowling at me in Ogden as I left the operations there with my clearance for Boise’s Gowen Field.

“Yes, sir, Kay Gott reporting.”

“You have a violation.”

(No response from me. I just waited for the wall to cave in. Which error would it be?)

“You failed to fill out a clearance for one leg of your trip. Rock Springs, Wyoming to Ogden, Utah. You are suspended for three days.”

It took a few seconds to digest this information. Horrors, I had not even thought of that! Good grief, was that ALL? Then I became indignant. “How many days leave do I have (had I accrued?)” (We were on civil service. We were civilians flying for
the Army Air Corps, and living on the base and taking orders from the AAF.) I told this man that I would add the three days suspension to my days earned, and just take a vacation home.

“Oh, no. This is punishment, and not to be used for vacation!”

So I spent the three days doing Christmas shopping in August and enjoying the city of Dallas. I was not confined to base, barracks or, to my relief, not thrown in the brig. Three days passed, but not in the air. On the fourth day, August 14, I was on orders to take a P-51C for the China account from Dallas to Newark, New Jersey.

When weathered in, I walked a lot. I walked and walked and walked, exploring the area.

An instrument rating was required in pursuits also. Then when we got the Instrument ticket we were never permitted to fly instruments with pursuits at Dallas, ever.

Also at Dallas, if you came in one minute before midnight, you had to be on orders the next morning. Operations used to watch the time that the airlines got in. If you wrote the wrong time down they were apt to call you up at 8 o’clock in the morning and say, “Listen, we just happened to check on American Airlines and we know that you came in before midnight, get up, get out there on the line.”

K: I stayed to the very end, and it was such a traumatic thing to get dismissed, disbanded, when we were so useful, so needed at Dallas. It was such an unjust thing, to me from my point of view.

BJ: It seemed so, to me. Of course, they had so many war-wearies back then.

K: Yes, but remember what Colonel Higgins, C.O. at Dallas said: “I have these 33 girls at Dallas, and they are all qualified, and they all do a good job, and when I send them with a plane they all go there and they return. They do it. They don’t end up in Salt Lake City when they are supposed to be going to Newark (referring to an actual incident by a male pilot).”
K: We had three sets of wings. ATC, the diamond WASP, and our Class Wings engraved with "43-W-2." Colonel Higgins had a party when we disbanded at Dallas. I got a present that every WASP got — a compact with my name on it... Lois K. Gott. We paid dues into a WASP Squadron fund, and the compacts were purchased from our dues. Colonel Higgins thought a lot of us.

K: Did you know that "Pete" Madison (Isabel) and I took the last two P-40s that went to General Chenault?

BJ: Did you?

K: The only trip I ever got to Oakland.

M: Really?

K: And the factory people wrote their names all over the planes; it was quite a ceremony to send us off, the last two P-40s, the last order. We always wondered if they ever got to him, because Chenault closed their China operations shortly after that. (We delivered those planes on September 9, 1944.) When I came into the Bay area, I flew over Alcatraz. I knew you were not supposed to fly over a Federal prison, but I circled around it.

***

I served two years plus a few days — eleven days.
Dear Carol & Dave -

Still no sign of the note I took when I interviewed the WASPs from Billings - but I did find my copy of We Were WASPS by Winifred Wood - published 1945. It even has a couple of 1940s clipping tucked in at the back. If you'd like to take a look at it, let me know & I'll be happy to send it along to you. (You may already have it, of course.)

Happy 2007!

Love,

[Signature]

Hope you didn't lose my damaged during the Seattle Storms -
Rita M. Davoly Ronstad
WEBSTER

Rita was born in New York on August 2, 1916 and was the oldest of 3 children born to Edward and Elvira Davoly. Rita caught the flying bug on her first airplane ride in 1942. She was able to receive her flight training through the Civilian Pilot Training program in which one female was permitted in a class of 9 males. From this program she went on to join the Women Airforce Service Pilot program. This program had over 25,000 women who applied but because the program didn’t last long, only 1830 were accepted. The graduating class of 1074 students began serving the military as pilots at various military bases in the US; Rita served at Randolph Airforce Base in Texas as an instructor. After the WASP program terminated, Rita got a job ferrying old and tired PT-19’s and BT’s from a storage depot to a New Jersey airport where she worked and met her first husband, Odd F. Ronstad. They moved to Ballard in Seattle where they raised their two children. Odd Ronstad died in Alaska in a boating accident in the Bering Sea. Rita joined with other WASP in 1992 on a People To People trip to Russia to meet with the Russian women pilots of WWII (the Night Witches) Rita enjoyed her other travels; especially to China and to North Africa. She lived in Ballard and Shoreline for most of her life and loved to play bridge with her friends for over 60 years. Rita was an avid gardener growing most of her kale, tomatoes and beans from seed. She was also an excellent cook and did bookkeeping for many years. Rita has been a member of the Childrens Orthopedic Guild since 1982. She is preceded in death by her sister, Dorothy and her second husband, Grey Webster. Rita passed peacefully in her sleep on February 14th from complications of a massive stroke 2 years ago. She is survived by her brother, Edward J. (Bud) Davoly, her children, Eric R. Ronstad, C.Sandra Ronstad McDonald Grier, her grandchildren, Evan R. Ronstad, Theresa McDonald Nicholson, MarLee F. Grier and a great granddaughter, Ashley E. Nicholson.

Biofuel mandates

Lawmakers made Washington just the second state in the country with biofuel and biodiesel mandates, to be implemented by December 2008. They also designated millions of dollars to biofuel low-interest loan programs to plant the seeds for the production, refining and infrastructure for alternative fuels.

Farmers, in general, resist mandates of any kind, which is why the Wheat Growers opposed that part of the proposal. At the same time, they welcome any effort to promote alternative fuel and energy alternatives, Jirava said.

"I wouldn't have bet on any of those happening going into the session," said Sen. Mark Schoesler, Republican whip from Ritzville. "I've watched too many people work water too hard, too long, to get optimistic too easily."

Ron Jirava agreed. The Ritzville wheat and barley grower and state legislative chairman for the Washington Association of Wheat Growers noted that there hadn't been any movement on water rights for years.

"We did all right this session," Jirava said. "No grand slam, but maybe a home run."

Farmers, in general, resist mandates of any kind, which is why the Wheat Growers opposed that part of the proposal. At the same time, they welcome any effort to promote alternative fuel and energy alternatives, Jirava said.
Bell P-39 Airacobra
USAF Museum Photo Archives
By Sue Hart

When longtime friends Audrey Jordan Nelles, Marjorie (Marj) Rolle, and Ernestine (Emie) Gore get together these days, the talk quite naturally turns to flying. All three were licensed pilots and charter members of the Montana Chapter of the 99ers, an organization of women fliers founded by Amelia Earhart. Marj started flying lessons in the late 1930s and soloed in 1940; Emie’s lessons began in 1942; and Audrey first took to the skies in the early 1950s.

The paths that led the three women to their shared love of flying were quite different. Marj is a daughter of Dick Logan, for whom the Billings airport is named. “I was practically reared at the airport,” she recalls, and the result was a very early interest in learning to fly which was helped along, no doubt, by meeting Amelia Earhart when she came to Billings to help launch Northwest Airline service to the Magic City.

“I remember telling my dad that I wanted to start lessons,” she says. “But he said, ‘No you can’t; finish school first.’” Marj reluctantly agreed, taking classes at night and helping her mother at the airport cafe, “except,” she says, “when I was bumbling rides” with pilots who frequented the field. Her first flight experience was as a passenger in a two-seat Alexander Eaglerock bi-plane.

She started flying at age 23; in 1943, at 26, she responded to a radio appeal: “My name is Jacqueline Cochran, and I want you to join the WASPS and learn to fly planes for the Army.” The WASPS were Women Airforce Service Pilots during World War II, fliers who ferried planes across this country and Canada in order to free male pilots for combat missions.

Marj trained in Texas and was later based in Michigan where she flew B-52s with the Third Ferry Command. “We didn’t have radios,” she says, “and we did have to make some grass landings.” She says that the results of flying without today’s sophisticated navigational and communications gear included “getting lost, and getting in the weather.”

While she was in training - which was the same training Air Force cadets received, Marj experienced a “groundloop” accident, caused by the landing gear on her plane going out. (According to Winifred Wood, author of 1945’s “We Were WASPS,” a groundloop is an “uncontrollable fast turn on the ground - ‘Here we go round the mulberry bush.’”)

Marj recalls that most of the male Air Force personnel treated WASPS with respect, a respect that they earned; 38 WASPS died while serving their country.

After 22 months with the WASPS, Marj joined the Air Force Reserves; she retired as a Major. She and her husband, Kenneth Rolle, have been active in the Civil Air Patrol, “to encourage young fliers” and ensure that “kids interested in flying got a good beginning” in the field.

“Emie” Gore started her aviation career as transportation agent for Northwest Airlines during WWII. Her roommate at the time was the secretary of the CAA, now the FAA. (Emie later left this job to work at Lockheed in Los Angeles, because she says, she “had to do something for the war.”)

(Continued on Page 36)
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EQUAL HOUSING OPPORTUNITY

HOK

a poor witness. "All I could tell them was that the driver had the biggest neck I'd ever seen," she laughs.

Finally the hostages were delivered to their homes and reunited with family and friends. "The phone started ringing almost immediately," Hawkins says. Her brother in Watertown, South Dakota, had heard the news and called. Dale Hawkins, who was working in Iowa Falls, Iowa, also called to assure himself that his bride-to-be was unharmed. (According to the Sioux Falls Daily Argus-Leader of March 6, 1934, telephone service in Sioux Falls was "jammed" following the hold-up. "The switchboard lit up like a Christmas tree—it was one solid blaze of light," the system manager reported. It was also, he added, the heaviest phone load in the history of the local exchange. One reason for the heavy load may have been that Western Union lines were cut prior to the robbery, thus making it impossible for people to send or receive telegrams.)

The Northwest station manager and other pilots would take her up and started giving her flying lessons. Some of the aircraft available was not of the most modern vintage, and one time when Ernie was on a solo flight over the airport - in a plane without a radio - she found the experience "so thrilling, so consuming," that she thought she was "the only pilot in the sky."

While she "danced the skies" (in the words of "High Flight") over the field, a Western Airlines plane had to circle around, waiting to land.

She and her late husband, Al, spent their honeymoon ferrying PT-23s to Cape Giradoux, Missouri - a three day trip in those days - and returned to Montana to start the GI Flight School in Lewistown.

She laughs when she recalls that when she and her husband were being introduced, and the person performing the introduction said, "This is Ernie," the person meeting them for the first time invariably tried to shake Al's hand.

Ernie recalls days of their flying into rodeos as barnstormers and landing in cow pastures for lack of a better "airstrip." She was in charge of ticket sales - rides cost $2 per person.

There were a number of HOK moments during her flying days - HOK standing for "Heaven Only Knows" (how we survived this).

One such moment occurred in North Platte, Nebraska, when Ernie had to land the two-seater she was in from the back seat. When her husband came back to hug her, she "hauled off and hit him," she says.

When she wasn't flying, she taught school in Fromberg, Lodge Grass, and Bozeman. Her mother lived in Fromberg and was not as comfortable in a plane as her daughter. Ernie took her up for her first ride in a Piper Cub. When Ernie helped her out after the flight, she noticed that her mother's hand was damp.

"Mom, were you scared?" she asked.

"Oh, no," her mother reassured her. "My hand's just a little wet from gripping my purse!"

Ernie remembers "wonderful trips" to destinations in Canada and Mexico.

It's no wonder that with such fond memories of her own flying days she says she's encouraged her nieces and nephews to take up aviation, despite the
belief of all three women that "flying's gotten so expensive now."

"Everything's expensive," Audrey Nelles says. "The planes, the lessons, insurance."

She recalls Orpha Dan, an early Montana woman flier whose aircraft was a fabric-covered plane. "If it hailed, she'd just go out and patch the holes," she says. Dan's flying was part of her every day life. A ranch woman, she flew feed to the cattle and flew her son to school. All in a day's work.

Audrey started flying in the 1950s at the urging of her brother who was a cropduster. He suggested that Audrey's husband might want to fly for him, and Audrey objected. "I had four babies at the time," she explains.

It appeared that the only way to convince her that flying was both safe and fun was to offer her lessons - an offer she couldn't refuse.

"Learning to fly opened up the world for me," she says, adding with a laugh, "and I haven't settled down since!"

She started flying in what she calls a "Stinson station wagon," an allusion to the wood exterior of the plane.

"We ended up being a flying family," she says. Her late first husband, her son, three sons-in-law, a grandson, and her second husband, Ralph Nelles, all held pilot's licenses.

Audrey actually met the Nelles family through their shared interest in flying. For many years, the two couples socialized together, until Audrey and her husband moved away from Billings. Years later, when both Audrey and Ralph had been widowed, Ralph hired a private detective to track down his old friend, and their earlier friendship was rekindled as a romance.

Like all pilots, the three friends experienced "scary moments" in the sky.

"Everybody that flies does," Audrey says. "For example, when you think you're lost."

"How about when you know you're lost?" Marj asks with a chuckle, and all three heads nod. They've been there, done that.

"When we started flying, we didn't have the equipment they do now, Audrey points out. "As a result, I lost friends through flying - mostly due to weather, although the mountains got some, too."

She had her own close calls. She remembers flying into the Miles City airport from the wrong direction and flipping the plane. "My nose was a couple inches from the runway, and all the glass was broken. I released my belt and hit the ground, but I wasn't sure how to get out. I touched the door and it just fell off. After I crawled out, I ran my fingers through my hair. One of them was bleeding, and when I looked at my hand and saw the blood, I was sure I was bleeding from my head."

All three women, Montana natives - Marj born in Billings, Ernie in Fromberg, and Audrey in Cut Bank - remember with pride the day in 1954 when Jacqueline Cochran came to Billings to "pin" them as charter members of the Montana Chapter of the 99ers.

Audrey points to a picture of a 99ers fly-in held many years ago. "Look at us," she says. "We're all in skirts, modest lady fliers!"

None of the women fly anymore. "It's easier to crawl onto an airliner and let them do the work," Marj says with a smile.

But they agree with Audrey when she says, "We have fond memories of when we did fly."
Introduction

The aircraft contained within the Flying Heritage Collection are rare treasures of 20th-century military aviation. They are a testament to the era's keen craftsmanship and engineering innovation, but more importantly, they pay tribute to humanity's struggle and spirit during the difficult years of World War II and the Cold War era.

In 1998, Paul G. Allen began acquiring and preserving these iconic warriors and workhorses, many of which are the last of their kind. Allen's passion for aviation and history, and his awareness of the increasing rarity of original vintage aircraft, motivated him to restore these artifacts to the highest standard of authenticity and share them with the public.

We invite you to enjoy the Flying Heritage Collection at close range—to admire their lines and mechanical precision, reflect upon their remarkable combat histories, and remember the courageous men and women who created and flew them. While the education they provide is significant, we hope you take special pleasure in knowing that these historic aircraft are not meant simply for display in a static museum environment. As part of the Flying Heritage Collection, their destiny is to return once more to the sky, where they were always meant to be.

FEATURED AIRCRAFT — P-51D "MUSTANG"

This actual aircraft saw combat in Europe in World War II, flown by Lt. Harrison "Bud" Tordoff of the 353rd Fighter Group, 5th Air Force. Join us for an interview with Bud, as well as enthusiasts involved in the restoration of this exceptional warbird.
About FHC

The Flying Heritage Collection mission is to collect, restore, fly and preserve combat aircraft and artifacts representing technological, ideological, political, and economic views of aerial conflict in the 20th century, with emphasis on World War II and the Cold War era.

The aircraft collection embodies critical geographic zones, major combatants and service branches, ethnic and gender significance, historic events, and technical advances of those military encounters. Our restoration program was developed and implemented to satisfy the most stringent evaluation of authenticity.
The Collection

The planes within the Flying Heritage Collection were created at a time when aeronautical discovery had evolved to aviation mastery. Fine crafted by distinguished design bureaus with leading technologies of the 1930s and 1940s, the main emphasis of the collection includes combat aircraft from World War II, as well as the Cold War era.

The World War II examples include U.S., British, German, Russian and Japanese types, which were often pitted against each other in great air battles. These rare survivors were researched, hunted down and sometimes recovered from former battlegrounds and airfields. Where few specimens were rebuilt by previous owners, the majority on display have received restoration of the highest authenticity.

The current collection includes:

**Flying Aircraft - Current**
- Supermarine "Spitfire" Mk.Vc
- Polikarpov I-16 Type 24
- Curtiss JN-4D "Jenny"
- North American P-51D "Mustang"
- Polikarpov U-2/PO-2
- Curtiss P-40C "Tomahawk"
- Fieseler Storch Fi 156-C2 "Storch"

**Completed Artifacts**
- Fieseler Fi 103/V-1
- Fieseler Fi 103R "Reichenburg"
- Mitsubishi A6M5-52 "Zero-Sen" (recovered airframe)

**Currently Under Restoration**
- Messerschmitt Bf 109E-3 "Emil"
- Hawker Mk.XIIb "Hurricane"

Mitsubishi A6M3-22 "Zero-Sen" (two-seat field modification)
Focke Wulf FW 190A-5 "Butcherbird"
Republic P-47D "Thunderbolt"
Goodyear FG-1D "Corsair"
North American B-25J "Mitchell"
Boeing B-17E "Flying Fortress"
Messerschmitt Me 262A-1a "Schwalbe"
V-2
Ilyushin IL-2M-3 "Shturmovik"
P-38J "Lightning"

**Future Restoration Projects**
Casa 2.111D (Heinkel He 111H)
Nakajima Ki-43-1b "Hayabusa"
Grumman F6F-5 "Hellcat"
North American F-86A "Sabre"
Mitsubishi A6M5-52 "Zero-Sen"
Yakovlev Yak-3U
Republic F-105G "Thunderchief"
Vought F-8 "Crusader"
Mikoyan and Gurevich MiG-21 "Mongol"
BAE/Hawker GR-3 "Harrier"
DeHavilland DH98 "Mosquito"
Me 163B "Komet"
FLYING HERITAGE COLLECTION

On Display

Boeing B-17E "Flying Fortress"
Curtiss JN-4D "Jenny"
Fieseler Fi-103(V-1)
Fieseler Fi-103R "Reichenburg"
Fieseler Fi-156-C2 "Storch"
Grumman F6F-5 "Hellcat"
Mitsubishi A6M5 "Zero-Sen"
Nakajima Ki-43-1c "Hayabusa"
North American P-51D "Mustang"
Polikarpov I-16 Type 24
Polikarpov U-2/PO-2
Supermarine "Spitfire" Mk.Vc

Boeing B-17E "Flying Fortress"

During World War II, no aircraft epitomized American air power more than the Boeing B-17 Flying Fortress. With 10 machine guns for self-defense and capable of carrying a two-ton load for 2,000 miles, the B-17E became the first truly combat-capable model of this type. This airframe is extremely rare—one of only two surviving examples actually built by The Boeing Company in Seattle that will fly again.

Status: Restoration (parts only)
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Watercolor by Molly Hashimoto, 2006
More information at www.mollyhashimoto.com

North Cascades Institute is a 501 (c) (3) nonprofit organization. Your contributions are tax deductible.
Printed on 100% recycled post-consumer paper manufactured with wind power.
Dear Ivan,

Thanks so much for considering our Soundough Speaker Series invitation and for your call too.
It's a standing invitation anytime you see some free time ahead. Also, Carl confirmed he would be happy to consult on WWII aviation facts (he's a master!): cmolesworth@reedbusiness.com or (360) 757-1949. You can google his books.

Best regards, Kris
August 3, 2007

Mr. Ivan Doig
17277 15th Ave NW
Shoreline, WA 98177-3846

Dear Ivan,

I hope that you will remember me from our meetings over the years through Northwest Bookfest, PNBA and other parts of the book business. I treasure your books and am grateful for the talent you have shared with your many readers over the years. Thank you for your work.

I am happily back here at North Cascades Institute, a remarkable 20-year old organization that works to conserve and restore Northwest environments through education. Chuck Robinson, past board president, may have mentioned how much we would like to work with you, particularly since the Institute has such a strong tradition of literature and good writing.

I am writing you today to ask if you would like to appear as a guest at our stunning new environmental learning center at Diablo Lake which opened in 2005 and serves people of ages via a wide variety of experience in nature.

We would very much like to host you as a guest in our Sourdough Speaker Series sometime in 2008, to talk about your work with a small (40 or so) group of natural history enthusiasts and readers. The series is a bit like a literary salon in the wilderness and has become one of the most popular new programs we offer. Tim Egan and Joel Connelly will appear in September and John Marshall (P-I book editor) joined us earlier this spring and enjoyed it very much.

Each gathering in our Sourdough Speaker Series takes place in our lakeside dining hall and features an informal gourmet dinner of local and organic foods. A fireside presentation follows, with plenty of time for questions, discussion and getting acquainted with others. The Learning Center is tucked at the edge of the lake at the foot of Sourdough Mountain where Gary Snyder spent time as a fire lookout in the 1950s, so it is an appropriate setting for a literary series.

Our speakers appear pro bono as proceeds from the series help support our youth programs such as Mountain School, Girls on Ice and North Cascades Wild -- all designed to get children of all backgrounds outside and learning from nature. However, we are happy to reimburse for travel costs and we provide overnight lodging and dinner for you and Carol. In fact, if you would like to come Friday evening and make a weekend of enjoying the North Cascades we will happily provide complimentary lodging and meals for Friday and Saturday, too.
I thought I would propose this to you before contacting any other speakers for 2008, so all dates are available: May 17, June 21, September 13, October 11 or November 1.

Our promotional materials are excellent and we include your appearance and information about you and your work in our fall catalog, which is distributed to more than 15,000 people in the Northwest and beyond.

Ivan, your work has meant a lot to anyone who cares about how humans relate to the environment, and it would be an honor to host you as a speaker in this excellent series. Although I realize it is a lot to ask you to appear pro bono, I do think your work and values would be a good match for the Institute and its audience. If you enjoyed being with us, perhaps you would consider returning sometime to teach in our Writers’ Retreat (where we are able to offer honoraria to instructors).

Thank you for your kind consideration of this invitation. I look forward to hearing from you!

Best regards,

Kris Molesworth
Director of Community Programs
Kris_molesworth@ncascades.org
call Betty in early April,
couple of days
ahead, to arrange
this.
Greeting Nan & Carol

- A big thank you for the dinner & visit on Saturday night. It was great what the doctor ordered for Roy. He doesn't take too much time for himself these days.

I am enclosing some info on the Flying Heritage Collection. If you are interested in looking at these planes 'up close & personal', I would be happy to take you out there. Right now these planes live in Arlington.

Hope all goes well with both books - you will feel like a spit-personality for a while.

Cheers,

Betty
SEPARATION NOTICE

The following items have been removed from Box 241, Folder 2, Collection 2602, for oversize storage elsewhere.

Items Removed:

Negative: # 3968+3971 were removed from Series 2- Books & other writings, Subseries 4-
The Eleventh Man (2008) [Working title: String of Pearls]. Images were relocated to Series 8- photographs, Subseries 3- photographic prints.

X Material has been placed in Box 169, Folder 4, Collection 2602

Location information is available from the Special Collections Staff.
SEPARATION NOTICE

The following items have been removed from Box 24, Folder 2, Collection 21002, for oversize storage elsewhere.

Items Removed:

Photographs: #3945-3964 were removed from Series 2, Books & Other Writings, Subseries 4, The Eleventh Man (2003) [Working Title: Strong of Peale]. Images were moved to Series 8, Photographs, Subseries 3, Photographic prints.

Material has been placed in Box 102, Folder 5, Collection 21002

Location information is available from the Special Collections Staff.