# Air and Space this Week

## Item of the Week

# Betty, Amelia, Bill, and Chesley

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The Air and Space this Week calendar has six aviation anniversaries of note for this week. Two have already been the subject of an Item of the Week and won't be covered further here: The U.S. Navy's first landing on an angled-deck aircraft carrier on January 12, 1953 (here) and the completion of the first jet-powered, non-stop, around-the-world flight on January 16, 1957 (here). Two of the anniversaries this week are for people and events that deserve the full "Item" treatment, at a later date, but they will be reviewed here: Amelia Earhart and the first solo flight from Hawaii to California (January 11/12, 1935) and Chesley Sullenberger's expert water landing of the bird-struck US Airways Flight 1549 (January 15, 2009). One of the remaining two anniversaries is for an extraordinary WWII accomplishment, and the final one will be our "lead-off" story this week.

## **BLANCHE "BETTY" SCOTT**

There were a number of aviation daredevils exploring the skies and flight a century ago. Two of them were Blanche Scott, who favored the name "Betty," and Glen Hammond Curtiss. Both hailed from western New York state.

Betty Scott was born on April 8, 1885, in Rochester, N.Y. Her father was in the patent medicine business, and her family was comfortable financially. She was quite a tomboy, and in her youth favored vigorous activities such as ice skating and bicycle stunts. This was the early, early days of the automobile, and her father bought one that 14-year-old Betty took to driving all over Rochester (there were no driver's license requirements at the time). She did well in prep school, but decided that college was not for her. [However, one source says she not only attended college, but graduated from Vassar!] Her love of cars and speed led her to New York City, where she became a successful automobile salesperson for the Willy's Overland Company.

Betty knew the value of publicity and promotion, and asked the Willy's senior management to sponsor her to make a cross-country trip from coast to coast, zig-zagging to make a number of promotional stops along the way. She was as convincing to them as she was to her car-buying customers, and the Willy's bosses bought into her idea. A journalist, Gertrude Phillips, was brought in as a travelling companion to help handle the necessary publicity (Betty would marry one of the trip's other publicity people!). The two left New York City on May 16, 1920, and reached San Francisco on July 23.

One of the intrepid pair's stops was Dayton, Ohio, where Betty saw a two-plane flight endurance exercise by Wilbur Wright and the Wright's first flying instructor, Al Welsh. She was smitten, not by either man necessarily, but by the concept of flight.

Betty and Gertrude made it to California, only the second time a woman had made a coast-to-coast drive (remember, there were no federal highways back then, and the U.S. had only a few hundred miles of paved roads outside of cities!). One of her Willy's contacts there was Glenn Martin (yes, he of future Martin Marietta fame), who was a Willy's dealer at the time (more about him later). The stories from her trip, and her pluck and savvy, attracted the attention of Jerome Fanculli, a representative of the Glenn Curtiss flight exhibition team.

Curtiss was an aviation pioneer only one notch (barely) below the Wrights. He developed the first seaplane, the Curtiss "Jenny," engines for motorcycles and other applications, and numerous other aircraft in the early days, as well as airplane engines. He was a real speed demon, too; he once held the motorcycle speed record when he slapped a V-8 engine on a heavy-duty bicycle and took it to 136 MPH at Ormond Beach, Florida! All while his ankles were mere inches from rapidly-spinning open bevel gears! Curtiss was based out of Hammondsport, N.Y. and had a number of enterprises related to flight; the exhibition team was but one of them.

Fanculli knew a lot about publicity and promotion, too, and talked with Curtiss about having Betty Scott join the flying team. Curtiss grudgingly agreed (he was concerned that if a woman was hurt in an accident, it would be bad for his business), and Betty eagerly accepted the offer. But first, she had to learn how to fly! Curtiss agreed to teach her; Betty would be his first and only female student under his direct instruction. He brought her along slowly, first with slow-speed taxi testing on the ground, and then with "hopping," taxiing faster with an occasional bump upward into the air, all while an assistant was running alongside the plane. Curtiss had rigged the training plane with a throttle governor, preventing the speed necessary for full flight. On one such practice run in August, 1910, either the governor failed or Betty caught a gust of wind under her wings. In any case, her plane leapt up to an altitude of 40 feet, and then Betty was able to bring it down again smoothly. It was the first flight in the U.S. made by a woman, at least recognized as such by the Early Birds of Aviation organization (but not by the rival Aeronautical Society of America, who regarded that Betty's flight as an accident).

One account has Betty also making an actual solo flight on September 6, 1910, but there was only one witness.

Betty learned to fly (on purpose) and joined the Curtiss Exhibition Team a month later. She debuted on October 24 at a flight meet in Fort Wayne. This time, 5000 people saw her make the first public flight in the U.S. by a woman. She would be billed as the "Tomboy of the Air," and would thrill crowds with flying upside down at low altitude and making last-second recoveries from steep dives.

Glenn Martin, in the meantime, had stopped selling Willy's cars and started making airplanes. He was aware of Betty's growing fame and reputation for fearless flying. He offered her a job as the first American female test pilot. She would fly the model prototypes, and then, based on

the results and her report, refinements would be made, all before the final blueprints were finished. She was also flying stunts for the Ward Exhibition Team during her time at Martin. She also appeared as a woman pilot in a few short films by the Champion Film Company in 1912.

Betty became more cautious as she grew older and saw many of her friends and acquaintances die or be severely hurt in flying accidents. She had personally witnessed the death of the first licensed U.S. woman pilot and fellow member of the Martin exhibition team, Harriet Quimby, on July 1, 1912). Her soon-to-be ex-husband, Harry Tuttle, gave her an ultimatum: choose between me and flying. Their divorce was soon final. But then Betty was hurt badly herself in a flying accident on May 26, 1913, and she was becoming increasingly-discouraged from the lack of opportunity for women to advance in any field related to aviation. In 1916, she retired from exhibition flying and flight test. She was one of the few from that era to survive unscathed.

Betty remarried in 1917, but that union didn't last. Talented and versatile, Betty then turned her eye westward, and went to work as a scriptwriter for RKO, Universal, and Warner Brothers in Hollywood. She also was into radio, and worked as a writer, producer, and performer on a number of radio productions in the early 1930s. She was a talk show hostess at KFI in Los Angeles in the early 1930s, then returned to Rochester in 1936, where she worked for several area radio stations.

She may have been out of the aviation business, but a number of pilots and others remembered her from her barnstorming days. Chuck Yeager, in the year after his barrier-breaking flight in the *Glamorous Glennis* (1947) took her for a ride in a TF-80C jet, making Betty the first American woman to fly in a jet aircraft. Chuck even through in a few high-speed aerobatics, just so Betty could feel for herself the tug of aerodynamic forces once again.

Perhaps the most enduring contribution Betty Scott made was in the years 1953-58, when she began working as a consultant for the fledgling U.S. Air Force Museum in Dayton (now the National Museum of the U.S. Air Force), second (barely) only to the Smithsonian's National Air and Space Museum in terms of important artifacts (and, sniff, THEY have the only surviving Valkyrie! And a B-24...). She was instrumental in acquiring a number of key artifacts and other items for the Museum.

Betty Scott passed away on January 12, 1970, in Rochester, at age 84.

Honors and recognition continued to come in, even after she was gone. The U.S. Postal Service issued a commemorative stamp in her honor (air mail, of course!) in 1980. She was inducted into the National Women's Hall of Fame in 2005.

### AMELIA EARHART: THE FIRST HAWAII to CALIFORNIA NON-STOP SOLO FLIGHT

Amelia Earhart and her accomplishments would make for a book-length Item of the Week, just by themselves. But this segment is not about Amelia, her career, her solo Atlantic flight 5 years after Lindbergh's, or the round-the-world flight from which she did not return. The focus here is only on her Hawaii-to-California solo flight, the first such ever, on **January 11/12**, 1935.

Earhart was already famous when she made the Hawaii-California solo flight.

In 1928, the year after Lindbergh's solo flight, she was part of a three-person crew to fly the Atlantic, becoming the first woman to do so. That feat made her known to the public. On May 21, 1932, she repeated Lindbergh's solo flight, going from Newfoundland to Londonderry, Ireland. The U.S. Congress authorized the awarding of a Distinguished Flying Cross (normally a military award), joining the Wright Brothers, Lindbergh, Roscoe Turner, Wiley Post, Jacqueline Cochran, Glenn Hammond Curtiss, and Eugene Ely as a civilian recipient of the DFC.

Hawaiian sugar interests knew that if airplanes could traverse the Atlantic, then they could also make it from the West Coast to Honolulu, which would be a boon to tourist visitation. Accordingly, they offered a \$10K award to the first pilot who could make that flight, solo. Several tried, and several died. But Amelia rose to the challenge, and made the 2400-mile trip in a little over 18 hours, flying from Wheeler Field to Oakland. She knew, like the Hawaiian sponsors knew, that "... one more passage across that part of the Pacific would mark a little more clearly the pathway over which an air service of the future will inevitably ply."

Her departure from Wheeler Field was a low-key affair, but ~5000 cheering fans were there to meet her arrival in Oakland! A <u>commemorative</u> plaque was erected on Oahu's Diamond Head Road in the Kuilei Cliffs Beach Park in honor of the 1935 flight.

Amelia and her navigator, Frederick Noonan, attempted an around-the-world flight in 1937, but were lost tragically somewhere in the South Pacific, near Howland Island, on July 2 of that year. What happened to her and Noonan has been the subject of much speculation even to today, but there has never been a definitive determination of their fate.

[Another Aside: The impromptu programming event at NASM that was the first Halloween-related public program and led directly to their most popular event of the year, the annual "Air and Scare," had three presentations. Roger Launius spoke on the "Apollo was a hoax" Hoax, Jim Zimbelman demolished the "Face" on Mars, and Dorothy Cochrane portrayed Amelia Earhart, discussing the realistic and wacky explanations for her loss.]

### WILLIAM SHOMO: SEVEN VICTORIES in a SINGLE SORTIE

William Arthur Shomo was born on May 30, 1918 in Jeanette, Pennsylvania. Jeanette is near Johnstown, and Shomo's father's family were survivors of the famous 1889 flood there. His uncle, Frank Shomo, was the last known living Flood survivor. William went to embalming college in the late 1930s and worked as a mortician in 1940-41. He enlisted in the USSAF on August 18, 1941, and was assigned to be a member of the 82<sup>nd</sup> Tactical Reconnaissance Squadron. The mission of the 82<sup>nd</sup> was to support MacArthur's drive to the Philippines, flying primarily photo reconnaissance and ground attack/support missions. The supply line was pretty long and arduous in the early days, and none of the AAF reconnaissance units got first dibs on the latest model fighters. The 82<sup>nd</sup> flew P-39s and P-40s for the first few years of the War. In December, 1944, the 82<sup>nd</sup> received the photo reconnaissance version of the Rolls-Royce-engined P-51 Mustang.

[Personal Note: One of my uncles was a pilot for the 110<sup>th</sup> Tactical Reconnaissance Squadron in the Pacific Theater. He had many stories of ground attack missions in and around Guadalcanal, and then later in the War (when they, like Shomo, had Mustangs). And he knew Shomo.]

The tactical guys were good pilots, but their duty did not take them into areas of air superiority combat often. But when they did get a chance to fight fighters .... Shomo named his personal aircraft the "Flying Undertaker." Guess what happened next.

Captain Shomo had moved steadily up the ranks in the 82<sup>nd</sup>, and by the time they got Mustangs he had become the Squadron CO. On 12/24/1944, the squadron was ordered to move to Mindoro, an island off Luzon, in order to support MacArthur's "Return" landing at Lingayen Gulf. Shomo led the first Mustang flight to reconnoiter northern Luzon, including the airfield at Tuguegarao. There, he shot down a "Val" dive-bomber coming in for a landing, his first aerial combat victory.

A second, smaller, armed reconnaissance mission was laid on for January 11. Captain Shomo and his wingman, Lt. Paul Lipscomb, were to check the status of the airfields at Tuguegarao, Aparri, and Laoag.

[Important Aside: Much of MacArthur's campaign in the Philippines was against the Japanese Army, not the Navy. The primary Army fighter aircraft throughout the War was the <u>Kawasaki Ki-61</u>, codenamed "Tony." Tonys were then only Japanese fighter equipped with a liquid-cooled in-line engine, which made the shape of their forward fuselage to be different than the radial-engined Zero and other Japanese fighters, and many of the U.S. fighters of the day. When AAF pilots first encountered the Tony, they thought there were Bf-109s because of the in-line engine.]

As Captain Shomo and Lieutenant Lipscomb approached the Japanese airfields, they saw above them a G4M "Betty" bomber escorted by 11 Tonys and a Kawasaki Ki-44 "Tojo" fighter. Shomo did not hesitate, in spite of the long odds of 13 to 2; he firewalled the throttle and led Lipscomb into a climbing turn.

Apparently, the Japanese escorts were expecting other Tonys to join up, and did not react to Shomo's approach at first, since the two unfamiliar Mustangs resembled Tonys. Two Tonys fell in the first slashing attack, and the Japanese pilots were still making signs of friendship during the second run by the Mustangs. Two more Tonys went down. The defense was only starting to get organized when Captain Shomo made a third pass, knocking down another fighter and then shooting down the bomber as he recovered from the diving attack. Two Tonys flew close support for bomber as it crashed; Shomo then chased and shot down both. By the time the combat was over, Shomo knocked down six fighters and the bomber, and Lipscomb scored three kills of his own. The final three aircraft escaped.

Seven confirmed fighter kills in one sortie was quite a feat. Only <u>Dave McCampbell</u>'s nine-victory performance at the Marianas "Turkey Shoot" in June, 1944, exceeded it. There were several other "ace in a day" performances, including one that was not by a pilot at all, or even an officer, but rather a B-17 waist gunner, Benjamin Warmer, who tied Shomo's performance.

Captain Shomo was immediately promoted to Major and would receive the Congressional Medal of Honor for this action. Lt. Lipscomb won a DFC.

Colonel Shomo's high school football stadium was <u>recently named</u> in his honor (if the link acts dead, use "Jeannette renames field war hero" in search box to get to article).

#### CHESLEY BURNETT SULLENBERGER III: EXPERT EMERGENCY LANDING

I am sure ALL of you know about Captain Sully and his amazing "Miracle on the Hudson" water landing, without loss and minimal injuries for the 155 aboard. After all, few people I write about in A+StW got the full-strength Hollywood treatment, including a portrayal by Tom Hanks. (OK, there's the Jim Lovell – *Apollo 13* thing). His feat, and career, and the heroism of both his crew and Patrick Harten, the ATC guy handling the flight, would make an excellent topic for a future Item of the Week.

[Actually, they already did, sorta. The crew of U.S. Airways Flight 1549 was awarded the 2010 NASM Trophy for their landing, and the Museum conducted an <u>on-line seminar program</u> that featured the entire crew. I was Education Chair at the time, and I helped manage the crew's visit, and used a personal connection (thanks again, GK!) to arrange for Air Traffic Controller Harten to call into the program. First Officer Jeff Skiles was at the controls when Flight 1549 struck the flock of geese that wrecked both its engines. Sully immediately took over, and Skiles handled the communications with ATC. They both appreciated the opportunity to chat again, under much more favorable circumstances!]

Rather than reflect on things in your relatively-recent memory, let me point out a few things less well known.

The House Aviation Subcommittee <a href="held a hearing">held a hearing</a> on the accident in February, 2009. The crew received a rare standing ovation from the subcommittee, and the Chair of the full Transportation Committee told the crew that "Lindbergh would have been proud of you." ATC Harten also testified about how haunted he was by "how close the splashdown came to tragedy."

Some minor criticisms have arisen, but are easily quashed. If Sully had tried for either LaGuardia or Teterboro airports, and didn't make it (as was quite likely), not only would everyone on his aircraft would have died, but they could have taken a large number of people on the ground with them. Faced with a life-or-death decision for everyone aboard, with only seconds to decide, he made the right call and insured the survival of all aboard. The entire flight of USAir 1549 was less than six minutes, from take-off to splashdown.

There were a few things that didn't get a lot of attention. The heroic action of everyday people in helping with the rescue was noted at the time, but had they not been on-the-spot, there may have been casualties (the water was very cold that day). And at least one of the flight attendants was hurt worse than generally known. But no doubt, Sully, Skiles, and the crew performed admirably that day.

The only pilots I can think of whose heroic actions were in the same league as Sully's were DC-10 pilots Al Haynes, William Records, and Dudley Dvorak, (assisted by dead-heading pilot Denny Fitch) whose superb piloting in crash-landing at Sioux City on July 19, 1989 saved many lives. UA Flight 232 had <u>suffered an in-flight engine explosion</u> that <u>crippled the controls</u> of the aircraft, but they still were able to make Sioux City and crash-land there. What should have been a crash-and-burn-with-everyone-dead situation became a 185-of-296-aboard-survived scenario. *In numerous post-accident simulations, nobody yet has even been able to make the field, let alone save the majority of those aboard! Not even the pilots who did it for real...* 

#### REFERENCES

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NASM "Tomboy of the Air": https://airandspace.si.edu/stories/editorial/tomboy-air

NASM "First Solo Hop": https://airandspace.si.edu/stories/editorial/first-solo-hop

NASM "Women in Aviation and Space History" entry: <a href="https://airandspace.si.edu/explore-and-learn/topics/women-in-aviation/scott.cfm">https://airandspace.si.edu/explore-and-learn/topics/women-in-aviation/scott.cfm</a>

NASM Blanche Stuart Scott Collection: <a href="https://airandspace.si.edu/collection-archive/blanche-stuart-scott-collection/sova-nasm-xxxx-0062">https://airandspace.si.edu/collection-archive/blanche-stuart-scott-collection/sova-nasm-xxxx-0062</a>

National Women's Hall of Fame: <a href="https://www.womenofthehall.org/inductee/blanche-stuart-scott">https://www.womenofthehall.org/inductee/blanche-stuart-scott</a>

Glenn Hammond Curtiss Museum: https://glennhcurtissmuseum.org

Glenn Hammond Curtiss: National Aviation Hall of Fame:

https://www.nationalaviation.org/our-enshrinees/curtiss-glenn

Glenn Hammond Curtiss: First Flight Society: <a href="https://firstflight.org/glenn-hammond-curtiss">https://firstflight.org/glenn-hammond-curtiss</a>

Glenn L. Martin: https://en.wikipedia.org/wiki/Glenn L. Martin

#### Amelia Earhart and the First Non-stop Solo Flight from Hawaii to California

*National Geographic* ran an article about this flight in their May, 1935 edition, written by Amelia herself. They have it on-line here:

 $\frac{https://www.nationalgeographic.com/adventure/article/140727-amelia-earhart-history-flight-airplanes-adventure-explorer$ 

Aviation. Hawaii.gov had an excellent page about this flight: <a href="http://aviation.hawaii.gov/aviation-pioneers/amelia-earhart">http://aviation.hawaii.gov/aviation-pioneers/amelia-earhart</a>

History.com: <a href="https://www.history.com/this-day-in-history/earhart-flies-from-hawaii-to-california">https://www.history.com/this-day-in-history/earhart-flies-from-hawaii-to-california</a>

NASM Pioneers of Flight: https://pioneersofflight.si.edu/content/earhart-solos-pacific

Chasing Earhart: <a href="https://www.chasingearhart.com/post/january-11th-1935-amelia-earhart-becomes-the-first-person-to-fly-from-hawaii-to-california">https://www.chasingearhart.com/post/january-11th-1935-amelia-earhart-becomes-the-first-person-to-fly-from-hawaii-to-california</a>

UPI: <a href="https://www.upi.com/Archives/1935/01/12/Earhart-completes-first-solo-flight-between-Hawaii-and-US-mainland/3328950843111">https://www.upi.com/Archives/1935/01/12/Earhart-completes-first-solo-flight-between-Hawaii-and-US-mainland/3328950843111</a>. The idea of a successful woman pilot was still somewhat of a long way to go with the public; UPI found it necessary to comment thusly, "Miss Earhart wore a brown, one piece, fur-lined chamois coverall. Before she climbed from the plane's cabin she stopped to powder her nose after running a comb through her tousled hair." Egad! I wonder how they described Lindy... bet it wasn't like that!

The Learning Network: <a href="https://learning.blogs.nytimes.com/2012/01/11/jan-11-1935-amelia-earhart-sets-off-on-hawaii-to-u-s-mainland-flight">https://learning.blogs.nytimes.com/2012/01/11/jan-11-1935-amelia-earhart-sets-off-on-hawaii-to-u-s-mainland-flight</a>

#### William Arthur Shomo

Congressional Medal of Honor Society: <a href="https://www.cmohs.org/recipients/william-a-shomo">https://www.cmohs.org/recipients/william-a-shomo</a>

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Air Force Historical Support Division: <a href="https://www.afhistory.af.mil/FAQs/Fact-sheets/Article/639652/shomo-maj-william-a-shomo">https://www.afhistory.af.mil/FAQs/Fact-sheets/Article/639652/shomo-maj-william-a-shomo</a>

Air Force Magazine article: <a href="https://www.airforcemag.com/article/valor-instant-ace">https://www.airforcemag.com/article/valor-instant-ace</a>

Pacific Wrecks: <a href="https://pacificwrecks.com/people/veterans/shomo/index.html">https://pacificwrecks.com/people/veterans/shomo/index.html</a>

Kawasaki Ki-61 "Tony": <a href="https://www.militaryfactory.com/aircraft/detail.php?aircraft\_id=562">https://www.militaryfactory.com/aircraft/detail.php?aircraft\_id=562</a>

Tony Combat Evaluation Trials: <a href="http://www.wwiiaircraftperformance.org/japan/Tony-l.pdf">http://www.wwiiaircraftperformance.org/japan/Tony-l.pdf</a>

After the War:

https://www.pa.ng.mil/Portals/36/Lieutenant%20Colonel%20William%20A%20Shomo.pdf

### **Chesley Sullenberger and USAir Flight 1549**

Sully Sullenberger (official website): <a href="http://www.sullysullenberger.com">http://www.sullysullenberger.com</a>

Sully (2016 movie): <a href="https://www.imdb.com/title/tt3263904">https://www.imdb.com/title/tt3263904</a> (Oscar nominated)

NTSB accident report:

https://www.ntsb.gov/investigations/AccidentReports/Reports/AAR1003.pdf

Analysis by the U.S. Nuclear Regulatory Commission (about safety culture traits; I'm not suggesting Sully's Airbus A320 was atomic powered!): https://www.nrc.gov/docs/ML1122/ML11228A218.pdf

Wikipedia: Sullenberger: <a href="https://en.wikipedia.org/wiki/Sully\_Sullenberger">https://en.wikipedia.org/wiki/Sully\_Sullenberger</a>

Wikipedia: U.S. Airways Flight 1549: https://en.wikipedia.org/wiki/US Airways Flight 1549

The Smithsonian Channel show, *Air Disasters*, has two episodes pertaining to USAir Flight 1549 and UA 232. The former is about "<u>Hero Pilots</u>," season 14, episode 3; Sully's flight is the first third of the episode. The latter is "<u>Impossible Landing</u>," season 3, episode 4.

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