AAHS FLIGHTLINE

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AAHS goes to AirVenture 2022

Reflections of a First-timer

By Charles Shaw, AAHS Flabob Manager

There's a certain level of scale that some things reach in life which can only truly be appreciated in person. When you hear the words "largest air show in the world," you picture a lot of aircraft; you picture some truly tremendous aircraft, things you've only seen in pictures, books, or bombastic Hollywood movies. You probably won't picture planes landing 3 at a time, every 5 minutes, for two full days. You won't picture repeatedly looking over your shoulder to suddenly see massive formation flights, death-defying stunt planes, a U-2 Dragon Lady, a C-5 Galaxy, or even an F-35 flying overhead. This is the experience at Oshkosh AirVenture.

To say that stepping into such an environment for the first time is overwhelming would be an understatement. Everywhere you went, there was always some rare or unique aircraft, a mind-blowing flight demonstration, or an extraordinary pilot. It cannot be overstated how easy it was to get lost within this Mecca of aviation history and accomplishment, especially among the hundreds of thousands of guests who showed up to this year's AirVenture, yet this only added to the sense of adventure you get from being there.

AAHS's presence at the event seemed small in comparison, but it was a true joy to be a part of. Our booth was one of many in a large hangar on the airport, one of four hangars to house the exhibitors. Much of our time was spent talking to all the people wandering through, telling them about our mission, regaling them with exciting stories of aviation history, and handing out free giveaways to keep us in their memory. Some of these people led interesting careers in aviation, engineers for Boeing, retired military pilots, and even one man who claims he invented the freeze-dried food for the Gemini space mission.

The volunteers who helped us man the booth were excellent. They were all extremely knowledgeable about the history of aviation and their enthusiasm shined through to those they spoke to. With their help, we were able to sign up many new members for AAHS and successfully establish our presence at Oshkosh.

In truth, I believe the only significant downside to attending AirVenture was expressed by a fellow attendee I met at the cafe back at Flabob after the event, "It ruins all other air shows for me because nothing else can even compare."

I don't know yet if I agree with that sentiment. Still, I can definitely agree that Oshkosh was special among air shows, and my first time there is something I'll remember for the rest of my life.

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What's Inside

Around AirVenture 2022 . . . .

Above: *AAHS CEO Jerri Bergen shares a chuckle with member "Jet" Thompson.* ***Top left:*** *Charlie Shaw (R) chats with visitors as booth volunteers John Lyon (L) and Bob Burns look on. (Hayden Hamilton photo)*

Left: *Roughing it, EAA style.* ***Above:*** *Charlie surveys the AirVenture scene.* ***Bottom:*** *Entrance to the popular Vintage Aircraft park. EAA estimated a record attendance of around 650,000. More than 3,000 aircraft were on display, including 1,375 vintage aircraft, 369 warbirds, and 87 seaplanes.*

(EAA photo)

AirVenture Album . . . .

All images this page courtesy Hayden Hamilton

EAA's annual AirVenture attracts the largest and most eclectic collection of aircraft to be seen anywhere on the planet. From the tiniest of homebuilts to the largest cargo haulers, you'll see 'em all at Oshkosh. As you can tell, we're partial to warbirds, but we'll feature other types in No. 207. Interested in some special airplane? ***Let us know!***

Warbird walkabout . . . .

AirVenture 2022 shots by Joe Martin

A Note From Your CEO

The articles in this year's AAHS Journals have, as always, been interesting. For example, read how creative leasing strategies for the MD-80 saved both American Airlines and McDonnell Douglas, by Charley Cleaver, or first-hand descriptions of how nuclear devices were tested over Christmas Island in the early 60s, by J. B. Rivard. I look forward to receiving each new Journal in my mailbox.

But in looking further ahead from my vantage point as CEO, I can see that the costs of daily AAHS operations, funding new ventures like our Scholarship program, and continuing Journal publication in 2023 cannot not be covered by membership dues alone. We have two options: continue as is and spend into our cash reserves, or eliminate all member services except Journal publication. A third option—the direction in which we intend to go—is to reduce costs and seek additional funding to continue our support to you, our valued members.

We are researching grants that could provide additional funding for our 501(c) (3) organization as we focus on aviation history preservation, development of corporate partners for both operations and scholarships, and outreach to membership for support in our continuing mission. We all want these excellent slices of aviation history to arrive in the form of our Journal, to share members' aviation images via the AAHS website, and to support the next generation of aviation enthusiasts.

So NOW is an excellent time to show that support in the form of a donation to your Society! For a contribution of $250, members will receive as a gift a signed, limited edition print of Dan Kelly's "AVG Spirit." Members contributing $150 will receive a gift of either the limited edition, signed print of 'Strategic Air Command's B-47" by Nick Galloway, or Dan Kelly's limited edition signed print of "Short Flight-Long Walk Home." All these prints (measuring 23 x 30" or 24 x 27-28") are signed by both the artist and by pilots of the aircraft depicted.

Your continuing support is appreciated not only by readers of the Journal, but by the many volunteers at AAHS Headquarters and Huntington Beach who put in countless hours to make preservation of aviation history a reality. Make your appreciation a reality with a donation today!

Jerri

Jerri Bergen
AAHS CEO

To make a donation to AAHS for this special purpose, call (714) 549-4818 or email membership@aahs-online.org

(Above) "AVG Spirit," signed by five former AVG pilots, all now deceased, is a real collector's item.

(Top R) "Strategic Air Command's B-47 Stratojet," by Nick Galloway, signed by four SAC Wing Commanders.

(Bottom R) "Short Flight – Long Walk Home," by aviation artist Dan Kelly, was commissioned by Larry Bledsoe of Bledsoe Aviation Art in the late 1980s.

The print depicts a flight by P-51 pilot Roland Sperry, who claimed to have been shot down over Germany and walked to freedom. In 1990, Sperry's WWII story was completely debunked. Click here to read the real story, which is as tragic as it is bizarre.

Airborne Astronomy Observatories

Part Two: SOFIA

The Kuiper Airborne Observatory (L) and the successor SOFIA 747 on display at a NASA open house. (NASA Photo)

Our previous issue (No. 205) featured a brief history of airborne astronomy up to the decommissioning of the Kuiper Airborne Observatory (KAO), NASA's modified C-141 demonstrator, in 1995. In Part Two we conclude the story of SOFIA, NASA's Stratospheric Observatory for Infrared Astronomy, which may be the last aircraft specifically configured for such missions.

Origin and Obstacles

As the KOA program was being rolled out in the early 1970s, NASA astronomers already contemplated an even larger airborne infrared telescope, something in the 3-meter class. A 1977 Boeing study concluded that, based on fuselage size and flight profile, the 747 offered the best platform, but NASA essentially shelved the report. In 1980, bolstered by impressive results from KAO, the Large Airborne Telescope (LAT) idea was resurrected.

By 1984, a follow-on to the C-141 began to draw serious attention. The SOFIA acronym was coined shortly thereafter but the program would suffer a prolonged and difficult gestation period, due in large part to the enormous costs involved.

A breakthrough came when the West German Ministry for Research and Technology agreed to furnish the telescope and pick up 20% of the operating costs in return for a comparable amount of flight time for German scientists. By 1986, NASA funding had begun to trickle in, and studies were undertaken to determine what 747 airframe modifications would be required. In Germany, design requirements for the telescope were being formulated.

NASA's 1988 pitch for further development funding was flatly rejected, but work continued on both sides of the Atlantic, albeit at a reduced pace. The fall of the Berlin Wall and the subsequent diversion of German energies and resources to national reunification caused another hiccup. A NASA official declared, somewhat optimistically, "We will build SOFIA, but not without the Germans."

Intense lobbying efforts, including hosting a Congressional delegation at the German embassy in Washington, finally brought results; development funding for SOFIA was included in the FY1996 budget. In conjunction, NASA proceeded with the planned shutdown of the KAO, moving its $13 million operating budget to SOFIA. At that point, SOFIA was expected to fly in 2001.

Wind tunnel testing was begun on a 7% scale 747 model in 1990. With about nine times the collecting area of KAO's 36" telescope, SOFIA would be able to see fainter objects and peer far deeper into space. A prime concern was placement of the instrument. A position forward of the wing was preferred, as reflected in the initial design sketch. But cost and mechanical factors eventually dictated an aft-of-wing position.

Engineering challenges abounded, not least of which was determining the aerodynamic effects of opening a cavity in the fuselage the size of a residential garage door while traveling at Mach 0.8 or a bit beyond. There were less obvious considerations, like how much unwanted background heat and light would be generated by the jet exhausts when pitch blackness with zero infrared emissions was the desired operational state. These and many other issues would be investigated and overcome, but it would take the better part of a decade.

The SOFIA 747

In 1996, Universities Space Research Association (USRA) was awarded a $484 million contract to purchase an existing Boeing 747, install and test the German telescope, then operate the aircraft for 5 years. On October 27, 1997, a well-used Boeing 747SP was selected for conversion to the SOFIA

airborne observatory. The SP, indicating Special Performance, was a derivative of the 747-100 aimed at reducing passenger-mile costs on ultra long distance flights. The most noticeable change was the distinctly stubby appearance resulting from shortening the aft fuselage by ~48' and the taller vertical stabilizer required to compensate.

Pan Am's N536PA as "Clipper Lindbergh"

Only 44 SPs were built, ten of them on orders from Pan American World Airways. One of these, a 747SP-21, Boeing c/n 21441, eventually became SOFIA. Originally registered N536PA, it was delivered to Pan Am on May 6, 1977. Two weeks later, in commemoration of the 50th anniversary of Charles Lindbergh's epic transatlantic flight, Anne Morrow Lindbergh christened the ship Clipper Lindbergh. When cash-strapped Pan Am sold its Pacific Division to United Airlines in 1986, the SP fleet was included as part of the deal. N536PA was re-registered as N145UA. By the time United dispatched her to the boneyard in 1995, she'd flown over 74,000 hours.

The SOFIA Modifications

On April 30, 1997, in accordance with phases A and B of NASA's six-phase life cycle plan, USRA purchased the mothballed N145UA. The airframe was turned over to NASA in October to begin preliminary design efforts and technology evaluation. Initial development costs were estimated at $265 million, with the aircraft to be in service by 2001. Design life was programmed for 20 years.

Still mostly in its United paint scheme, N145UA undergoes initial flight testing, ca. 1998. The black rectangle is painted, indicating where the massive retractable door will eventually be placed. (NASA photo)

Meanwhile, Boeing had lost interest, forcing NASA to solicit bids for the extensive airframe modifications required. L-3 Communications/Integrated Systems in Waco, Texas, was awarded a $26 million cost-plus development contract. L3 began work in 1999, prepping the aircraft for the extensive modifications to come.

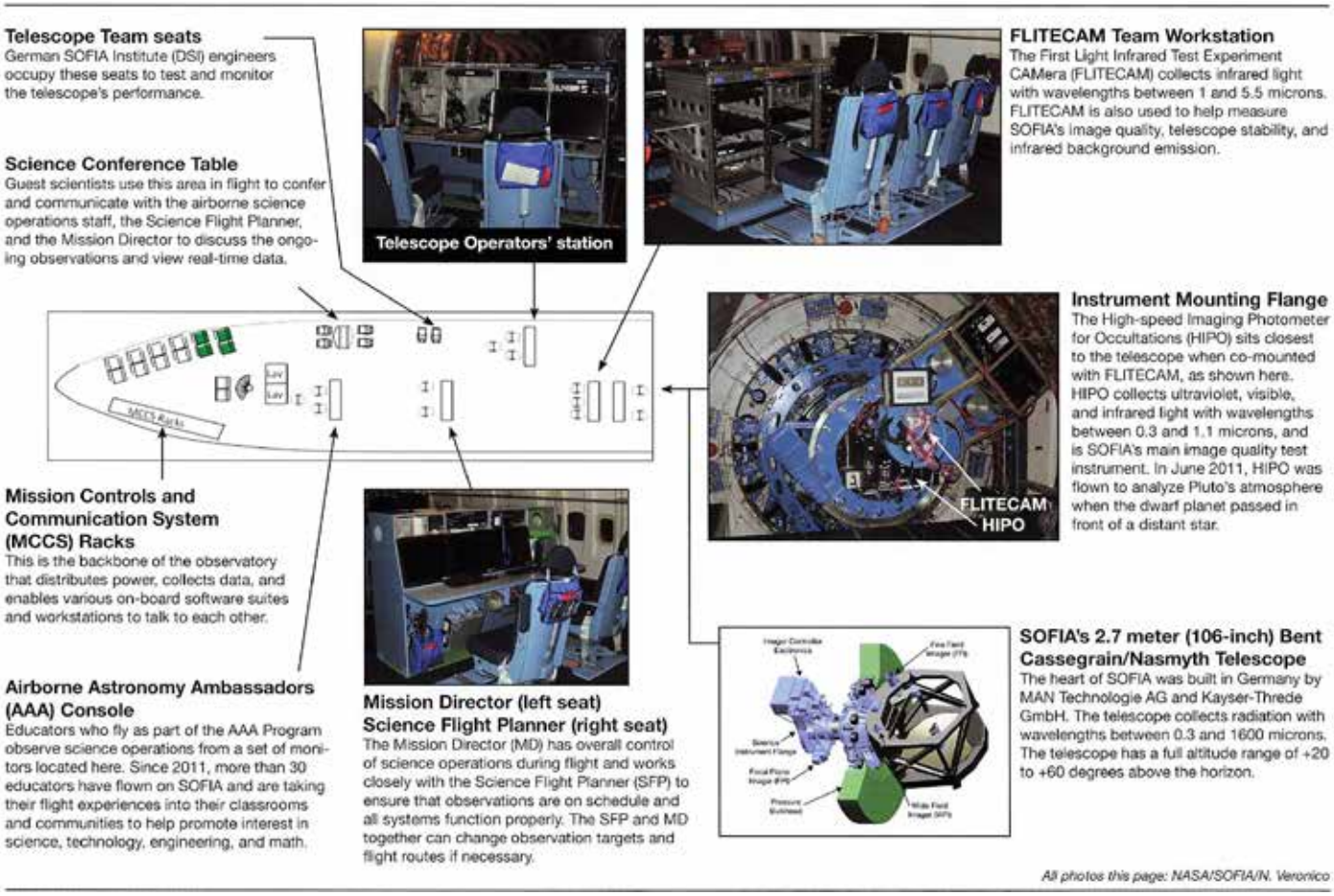
Ultimately this would involve cutting a hole in the rear fuselage, isolating that section of the fuselage with new pressure bulkheads, then fitting a ton-and-a-half retractable door in the opening. This in turn necessitated fuselage modifications to maintain structural integrity. Control surface cables and other lines and ducts would have to be rerouted.

Inside, a 34,000 lb. telescope had to be mounted and made rock solid against open-door airstream flutter and routine turbulence. The FAA required that Special Conditions be applied to the existing SP type certification due to the cryogenic materials (liquid nitrogen and helium) required to precool the infrared telescope. Working areas and ancillary equipment for the scientific crews had to be installed, along with a myriad of mission support systems.

These were formidable tasks, with no room for error or miscalculation. To mitigate risk, L3 obtained a partial section from another SP as a full-size mock-up. It was slow going. The initially projected 2001 service entry date came and went. In Germany, work on the airborne telescope, itself a never-before-done project, also inched along.

Installing the telescope door in the SOFIA 747SP.

The disassembled telescope components arrived at Waco in the fall of 2003 aboard an Airbus Beluga Super Transporter. Completing the installation would take months. Successful ground-based trials took place in September, 2004, while installation of remaining equipment and ground testing of the modified airframe continued. On December 17, the 101st anniversary of the Wright Brothers' first flights, the ship was reregistered as N747NA, better reflecting its NASA connection.



(Above) A self-guided tour of SOFIA's interior and mission equipment.

SOFIA already faced serious budgetary competition, not least of which was NASA's own Hubble telescope, launched by the Space Shuttle Discovery in 1990. Hubble had its share of problems, notably the infamous mis-ground mirror, but that had been overcome, and the stunning images that resulted fascinated the public as well as the scientific community.

By 2006 SOFIA, already in development for a decade, was five years behind schedule and well over budget. So loud were the rumblings in Washington that the President's budget proposal for FY2007 eliminated funding for the program. NASA scrambled to save SOFIA, taking control from USRA and shaking up the management structure. Congress, more amenable than the the White House, restored funding, but SOFIA remained grounded, awaiting completion and testing of the door installation and other work.

First Flight to First Light

On April 26, 2007, SOFIA at last took to the skies in an undramatic two-hour test hop from Waco, climbing to only 12.000 ft. A few weeks later, Charles Lindbergh's grandson Erik rededicated Clipper Lindbergh on the 80th anniversary of his grandfather's historic New York-Paris flight, generating a small but badly needed PR boost.

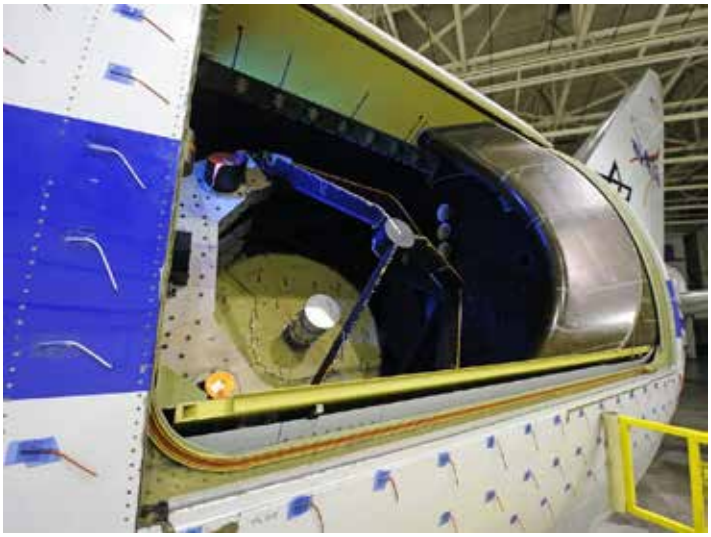
The new Clipper Lindbergh, at this point little more than an otherwise empty 747SP with a huge telescope in its belly, was ferried to NASA's Dryden Flight Research Center at Edwards AFB, Cal., arriving on May 31. Much mission-specific equipment remained to be integrated and tested, a process estimated to take up to three years to complete. L3 had already received a follow-on contract for "continued developmental and engineering work" on the project.

In mid-October, 2007, Dryden began a new phase of flight testing, with the 747 now instrumented to "study the aerodynamics, structural integrity, stability and control, and handling qualities of the modified aircraft."

Shepherded by NASA's two-seat F/A-18 chase plane, SOFIA undergoes second phase flight testing near the Dryden Flight Research Center, ca. 2007-08.

These flights would be made with the door closed. "The largest technical challenges remaining," noted the NASA project manager, would be "the mission sub-system installation that will give the aircraft the ability to fly with the cavity door open," This phase of testing was completed in early 2008. Open door flights would be the next hurdle.

NASA now estimated that SOFIA would be ready for initial science flights in 2010, although full capability would not be reached until 2014. L3's contract option was exercised, covering "completion of the SOFIA subsystems, such as the mission control and communication system." L3 would also provide support for the door-open flight tests.



SOFIA's cavity door in the open position. The tufts were installed to determine airflow characteristics during flight testing. The shiny object at right is an airflow baffle. (NASA)

In December, 2009, the cavity door was opened for the first time in flight. That two-minute experiment confirmed that the door would function as designed, but more extensive testing would be required before SOFIA could be certified mission ready. In fact, preliminary testing would continue for another year and a half.

After years of delays, on May 26, 2010, SOFIA marked what astronomers call "first light," the moment when a new telescope is first focused on an object and returns imagery for analysis. During this inaugural six-hour night flight, the international crew of 10 checked out the entire array of mission systems and consoles.

The flight confirmed that many of the thornier technical questions had been answered, notably how much image instability would be encountered when air flowed over the telescope as it peered out the open door. Post-flight analysis indicated that there was "room for improvement," but results had "clearly exceeded expectations." First Light was indeed a major milestone, but more time would elapse before SOFIA would be fully operational.

Operational at Last

The first true science flight was made on November 30, 2010, although SOFIA remained in development mode while various astronomical instrument suites were installed and tested. Flying at altitudes up to 45,000 ft., SOFIA operated above 99% of Earth's atmospheric water vapor, enabling observations of far superior resolution and quality than any made from ground-based telescopes. In its fully operational state, SOFIA was expected to fly about 960 hours annually, yielding about 8 hours of research time in the typical 10-hour missions in which around 50 scientific teams would participate.

Beginning in 2013, SOFIA flights included educators selected from schools and science centers across the country as part of NASA's Airborne Astronomy Ambassador (AAA) program. That summer SOFIA also made the first of seven deployments to New Zealand, studying areas of the night sky that cannot be viewed from the northern hemisphere.

On June 2, 2014, SOFIA was declared operational, having successfully demonstrated four different observation systems, with more in the pipeline. On the 28th, the aircraft departed its Palmdale, Calif., base, now renamed the Neil Armstrong Center, in route to Hamburg Germany for scheduled aircraft maintenance and telescope upgrades.

Total Eclipse . . .

By 2015, SOFIA had settled into yearly operating cycles, flying about 93% of missions as scheduled. Significant scientific discoveries were made (read about those here) but the 13-year development delay and ~$1billion in cost overruns eventually doomed the project. A 2020 NASA Inspector General's audit pulled no punches: "SOFIA has not met operational or science productivity expectations, which has caused stakeholders to question whether the $83 million spent annually on the Program can be put to better use." On April 28, 2022, NASA and its German partners reluctantly announced that SOFIA would cease operations not later than 30 September.

The 2022 New Zealand deployment patch.

On June 18, 2022, SOFIA arrived in Christchurch, New Zealand, where 32 flights were scheduled on this final overseas deployment. NASA had hoped for "a strong finish" to the program, but bad luck dogged SOFIA right to the end. On July 18, high winds banged the loading stairs against the nose of the parked aircraft.

Damage was slight, but SOFIA was flown back to the U.S. for repairs. The final operational mission departed Palmdale (PMD) on the evening of September 27, landing at 3:46 am next morning. The ultimate fate of this historic aircraft—museum piece or boneyard relic—is yet to be determined.

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Article by Joe Martin, with thanks to former SOFIA pilot Manny Antimisiaris for his help. ✈

New Members

Welcome to AAHS !

Note: To prevent unauthorized extraction of personal information, AAHS no longer publishes complete addresses. To contact a member, please phone the AAHS office (714) 549-4818, Mon-Wed-Thur, or email: membership@aahs-online.org

F. Kalinowski
Signal Mountain, TN 37377

Ronald H. Berry
St Louis Park, MN 55416

Cassidy McKusick
Winooski, VT 05404

Kevin Hill
Rosemount, MN 55068

David A. Lundgren
Rosemount , MN 55068

Scott Carnegie
Saint Charles, MO 63304

Gary Metelak
Homer Glen, IL 60491

Everett H. Yost
Sauk City, WI 53583

Pat Harwood
Livermore , CA 94550

Richard Darrah
Tops Field, MA

Mickey Perez
E. Hartford, Connecticut

Vance Breeze
Santa Maria, CA 93454

Gaye Pollitt
Santa Fe , NM 87501

John D. Keich
St Louis, MO 63146

Gregory Premetz
Stanwood, WA 98292

David Collins
London, OH 43140

John-Michael Lee
Van Nuys , CA 91406

Peter Klepp
Hopewell Jct, NY 12533

Brad Thorp
Janesville, WI 53548

Mike Thury
Deer Park, NY 11729

Rodney Roy
Grand Marais, MN 55604

Mike Macario
Coatesville, PA 19320

Howard Troughton
Hopkinton, MA

Tyler Magdic
Sussex, WI 53089

James F. Minor
Lake Dallas , TX 75065

Jim Martin
McFarland, WI 53558

John Meyer
Tucson, AZ 85711

Pat Flaherty
Cincinnati, OH 45248

Paul Bjornstad
Genoa, NV 89411

Alex B. Dudas
Huntington Beach
CA 92649

Michael Jaeger
Madison, WI 53711

Eugenia Hargreaves
Lovettsville, VA 20180

Ralfs Mikelsons
Renton, WA 98059

Put your name here!
Join AAHS

Several new members joined during AirVenture 2022

A special welcome to our international members!

Albrecht Weller
Toronto, ON M8V 3W9
CANADA

Peter Vercruijsse
Maastricht
NETHERLANDS

Mike Horrell
Chertsey, Surrey
UNITED KINGDOM

Magnus Lind
Hassleholm
SWEDEN

Raymond Todd
Panama City
PANAMA

Jim Bell
Winnipeg, Manitoba
CANADA

MOVING???

Make sure you send the AAHS office a change of address so you will not miss any issues of your Journals.

Or, if you change your email address, be sure to let us know so we can contact you if needed.

The Doolittle Raid

Continued from FlightLine No. 204

40-2297, the 14th Doolittle B-25 to launch from the Hornet, is shown here before the irksome belly turret was removed. (Credit: Fred Bamberger via History.net)

In our 2nd Quarter number (No. 204) we offered a short tutorial on mining the AAHS digital archives, using the 1942 "Doolittle Raid" as a chronologically relevant example. And yes, when we manned the calculator (can't do this stuff in our head any more), we realized it's been 80 years, not 75 as the page header initially advertised, but which has been corrected in the online archives.

In any case, members who followed along will have found Ben Warner's article, "Six Days." in the Spring 1994 *Journal* (pp. 68-74). The article's subhead asked, "Did six days at Sacramento's McClellan Field almost scuttle those famous 'Thirty Seconds over Tokyo'?"

Probably not, but as he hastily departed Sacramento to rendezvous with the USS *Hornet*, on the form asking his opinion of the work done on his B-25s Doolittle scrawled his one-word summary, *LOUSY*. in all caps. Coming as did from the man himself that verdict, right or wrong, has been chiseled into the historical record.

More to the McClellan story?

Much of the confusion surrounding the work done at Sacramento—and elsewhere, it should be noted—stemmed from the extremely tight security surrounding the project. Many of the modifications called for were at best nonstandard, and some contradicted tech orders or SOP. In his 1991 autobiography, Doolittle admitted that his demands "must have seemed very strange . . . Whenever the civilians would ask questions, my crews watching over them would tell them to mind their own business and get on with what they were supposed to do."

In the post-Pearl Harbor atmosphere every job was now priority one. With no explanation for the procedural deviations and the unwelcome bomber crews hovering over them, the civilian mechanics might be forgiven for seeing Lt. Col. Doolittle as "just another G.I.," and a troublesome one at that.

For his article, Ben Warner spoke with several of those former Sacramento Air Depot employees. Most agreed that "more information about the project—without divulging any key secrets —would have helped solve many of the 'chemistry' problems and probably some of the technical problems as well."

As for Doolittle's contention that the technicians "went about their assignments at a leisurely pace," those on the other side of the fence believed they'd operated "at the best possible speed consistent with the nature of the technical work and the fact that they had commitments to deliver other airplanes to other military commanders." When the results of the mission became known, the McClellan mechanics felt good about what they'd accomplished.

The *AAHS Journal* archives contain much more on Jimmy Doolittle's amazing life—and on just about any aspect of aviation history you'd care to name. It's great research and learning tool, just one of the benefits of AAHS membership.

The National Archives

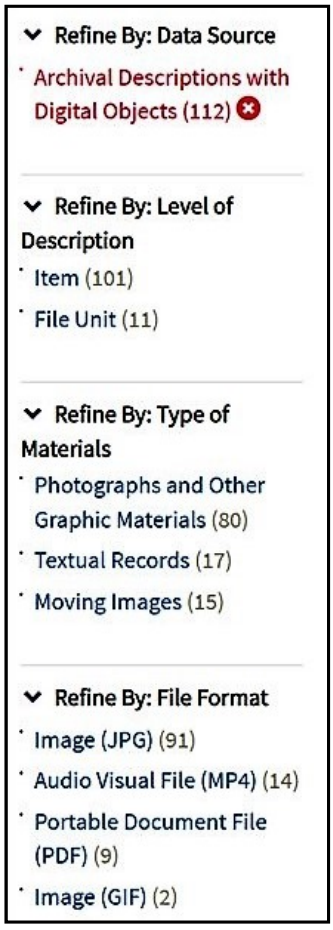
In the first part of this "how to" article, we pointed to the National Archives and Records Administration (NARA) as the next stop in our online research project. Given the secrecy surrounding the Doolittle mission, relatively little was recorded at the time, and most of that has been thoroughly scoured in the 80 years since.

Nonetheless, NARA's online holding are worth a look. The search engine, *https://catalog.archives.gov/advancedsearch,* takes a little getting used to. You'll see an entire page of search refining options, most of which can be ignored for a typical search, but scroll all the way down just to see the choices.

In order to locate images or other materials that can be examined from your computer screen, be sure ***only*** the Archival Materials Online box is checked. Otherwise, results from the entire Archives catalog will be returned. Our example is

unambiguous: the Doolittle Raid. But entering just those two words will return over 800 hits. Enclosing the search terms in quotation marks ensures that item descriptions to be searched must contain those exact words.

The search engine is not case sensitive; "doolittle raid" returns 112 items. At the left edge of the page the results are broken down by type and format. The default output is all types and formats, but the search may be narrowed by hovering the cursor and clicking on the desired search parameter. Of course you can try all this for yourself, but for those in a hurry we'll illustrate some sample findings.



Let's start with those nine pdf files toward the bottom. Only one of these is relevant to our search, the personnel File for James H. Doolittle.

NARA has scanned (mostly in color) and posted the service personnel records for 50-odd military aviation personalities; Billy Mitchell, "Hap" Arnold, Jackie Cochran, and Jimmy Stewart, to name just a few.

These files are part of Record Group (RG) 342, Records of U.S. Air Force Commands, Activities, and Organizations. They're hefty files, and much of the content consists of the administrative minutia inherent in the armed forces, such as officer efficiency reports and (surprisingly) even medical records. Although some personal correspondence may be included, operational details are scant. Doolittle's file, for example, is 1,154 pages long but contains almost nothing about the Tokyo raid.

Doolittle's crew No. 1, in B-25 40-2344. Doolittle's jacket shows the Wright Field "arrow," while the other members sport the "Thunderbird" motif of the 34th bomb squadron. At the far right is Lt. Henry L. Miller, USN, who was instrumental in developing the carrier takeoff technique used by the Doolittle fliers. (NARA)

Audio-visual materials online

Our NARA search also turned up both still and moving images. Narrowing the results to the 80 Photographs and Other Graphics Materials brings up thumbnails of the original photos. Almost all have been published at one time or another, but here you can view them individually or download in high resolution.

There are photos of the 16 individual crews, taken aboard the *Hornet*. The captions on the back side identify the crew members, the order of takeoff, and the aircraft serial number.

Among the many modifications made to the "stock" B-25B airplanes was the addition of the now legendary black-painted broomsticks that, it was hoped, would discourage enemy fighters attacking from the rear.

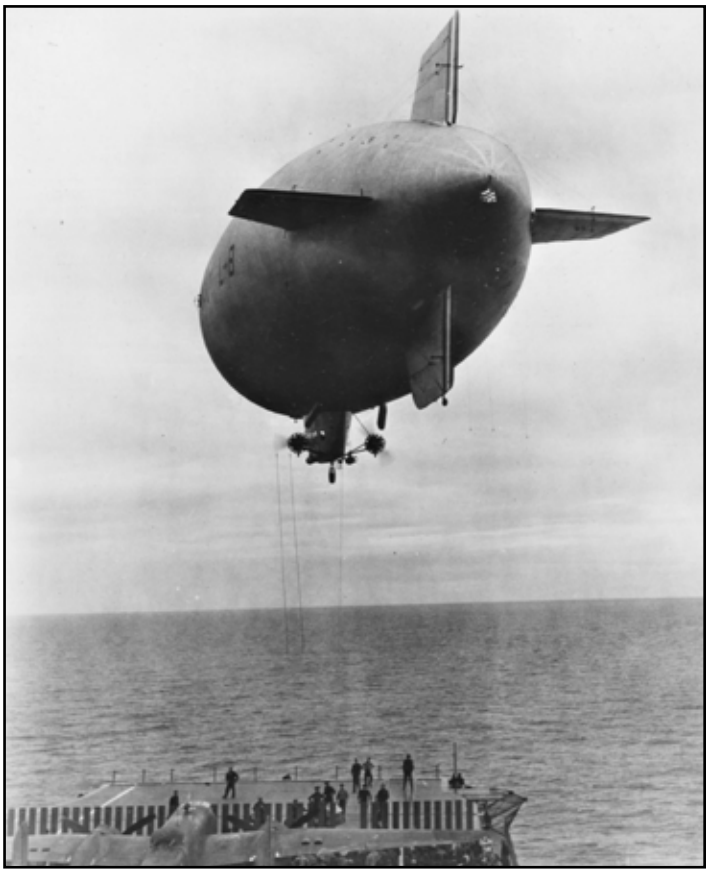
Those broomsticks look pretty convincing here! The Hornet's air group remained aboard, stowed below until the B-25s departed. VF-8 was supposedly reequipped with F4F-4s, but F-26 is either a -3 or has its wings unfolded. (NARA)

Doolittle credited Capt. Ross Greening, pilot of crew #11 in 40-2249 for coming up with that idea as well as devising the simple "Mark Twain" bomb aiming device used for the low-level attacks. The broomstick story has been repeated in just about everything ever written about the Doolittle Raid, but when or where this installation took place apparently remains unknown. The raiders reported no tail attacks, but that might have been be more attributable to surprise than to subterfuge.

This cropped and enlarged image shows the "tail guns" on ship #4, 40-2282, to good effect. The object between the "barrels" is a motion picture camera, intended to record bomb damage. (NARA)

Connecting some historical dots

When *Hornet* sailed, not all the desired B-25 work was finished. On April 3, blimp L-8 overtook the ship at sea. In what was surely a very early example of what would later be termed Carrier Onboard Delivery (COD), the airship lowered its cargo—mostly special navigators' domes—to waiting sailors on the deck below.



*Blimp L-8 hoovers above **Hornet's** flight deck to deliver B-25 special navigators' domes and other material. (NARA)*

The L-8, attached to Airship Patrol Squadron 32, would later become the centerpiece of one of the most bizarre incidents of WWII. On August 18, 1942, L-8 departed NAS Treasure Island on a routine patrol off the coast of San Francisco. Hours later, the blimp settled to earth at nearby Daly City. Everything appeared to be intact, but there was no sign of the two-man crew. Theories abounded, but the "ghost blimp" mystery was never solved.

L-8 was salvaged and served for the duration of the war. Goodyear later obtained the control car, which was installed on the new Goodyear airship *America*. Once more sporting its WWII decor, the cabin and an engine are now preserved in the National Museum of Naval Aviation at NAS Pensacola.

The cabin of the L-8. (Nat'l Museum of Naval Aviation)

Video files

Much of the film shot aboard the *Hornet,* the *Enterprise*, or from nearby escort vessels was spliced into TV documentaries years ago, but some of the NARA MP4 files appear to be very good digital copies of the original unedited, uncut footage. However, there is also much duplication of footage among the files, some of it obviously multi-generational and of very poor quality.

Graphically illustrated as, only motion pictures could, are the heavy seas encountered by the task force. Waves crash over the bow of the filming cruiser and the bow of an escorting destroyer is completely submerged for a couple of seconds.

Interspersed within the B-25 shots are several minutes of USN carrier ops, some in color, showing Wildcats, SBDs, and even the occasional Devastator, still carrying the prewar national insignia and alternate red and white USN rudder striping. A great "found while looking for something else" discovery is rare color footage of Curtiss SOC Seagull scouts from one of the escorting cruisers being catapulted aloft then recovered on the towed "sled" alongside, as shown in the frames sequenced at the bottom of the page. We'll investigate more online aviation history sources in future issues of *FlightLine*. ✈

Article by Joe Martin

***Below Left.** Approaching the sled. **Center.** Grabbing for the hook. **Right.** Secured and being hoisted aboard. Still frames from NARA MP4 file **428-NPC-817**. Film believed shot aboard the USS **Salt Lake City** or USS **Northampton**.*

More supersonic Boom . . . and a bust

As far back as No. 196, *FlightLine* has tracked development of a second-generation supersonic airliner to follow the much heralded but financially unsuccessful Anglo-French Concord.

Boom Supersonic, which has broken ground on its Superfactory near Greensboro, N.C., recently announced receipt of a nonrefundable deposit from American Airlines for 20 Overture airliners, with an option for 40 more. Coming on the heels of last year's United Airlines order, Boom would seem to be in a very favorable position.

Boom's new look for its Overture airliner features a redesigned wing and 4-engine configuration.

But all the news isn't good. In an effort to further reduce its supersonic signature, Boom has made changes in Overture's design, shifting to a four-engine arrangement. But these powerplants don't currently exist and Rolls Royce, after completing its engineering studies contract, has pulled out of the program.

Total Overture costs are expected to be in the $6-8 billion range, much of which remains unfunded. In a similar vein, last May brought some devastating news to the supersonic world when Aerion Corporation, seemingly poised to make a go of its Mach 1.4 AS2 bizjet, suddenly announced that it was ceasing all operations. After 17 years of often encouraging developmental work, Aerion failed to produce even a flyable demonstrator. Ultimately, the cash bogie was just too much.

Plans for a $375 million headquarters/factory in Melbourne, Fla, were scrapped. The company's s assets will be liquidated in September. Check *FlightLine* No. 201 for an in-depth look at commercial supersonics back in 2021, and No. 204 for another Boom brief. ✈

Rendering of Aerion's AS2 Supersonic Bizjet

✈ ✈ ✈

In No. 203, we looked at the surge in electrically powered aircraft start-ups which, although no Advanced Air Mobility (AAM) or e-VTOL aircraft has yet been certified, shows no signs of slowing down. United Airlines, in addition to its Boom supersonic venture, has entered the Urban Air Mobility sweepstakes, placing a $15 million order with Eve Air Mobility.

The bigest AAM news is the September 27 first flight of Eviation's "Alice" (N882EV) 9-seat demo aircraft. Alice made two circuits of the field, climbing to 3,500 ft. during the 8-minte flight. It's a significant milestone, although Eviation has quietly reduced range estimates for Alice from 440 to 250 nm, ✈

Eviation's redesigned Alice prototype lifts off on its first test hop from the company's Moses Lake, Wash., base.

Short circuit? Meanwhile, AAM hopeful Kittyhawk Aero has ceased operations. With a rating of 7.3, Kittyhawk was pegged at number 10 on the AAM Reality Index. (See No. 203 for the run-down on that.) Does more e-turbulence lie ahead? ✈

AAHS FlightLine

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CEO: Jerri Bergen
Managing Editor: Joe Martin

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Business Office:
15146 Transistor Lane
Huntington Beach, CA 92649-1156, USA

Phone: (714) 549-4818 (Wednesday & Friday, 8 to 1 pm)
Website: www.aahs-online.org
Email: aahs2333@aahs-online.org

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Proceeds go to support the preservation of the photo archives. Do you have a particular interest or suggestion for a CD in this series? Drop us a line or email the webmaster (webmaster@aahs-online.org). We are currently researching the possibilities of offerings covering the following areas: Connies Part II, XP-56, Northrop X-4, Bell Aircraft, and Early Lockheeds.

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