

# AEROTECH NEWS



Journal of Aerospace, Defense Industry and Veteran News

*and Review*

by **Larry Grooms**  
special to Aerotech News

**AEROSPACE VALLEY, Calif.**— When two roads into Edwards Air Force Base open on the mornings of Saturday and Sunday, Oct. 15-16, tens of thousands of visitors are expected to become part of an historic event in a place where history can change daily and at triple-sonic speed.

Those visitors will be the first to attend an Edwards AFB Open House and Air Show since the once-annual event was twice suspended 13 years ago — first for security reasons after the terrorist attacks on 9/11 and subsequent warfare in the Middle East, and then by shutdowns during the pandemic.

This year's restoration of the open house and air show coincides with historic anniversaries for Edwards and the U.S. Air Force, most notably the 75th Anniversary of the first supersonic flight at Edwards in October 1947, and creation of the U.S. Air Force in the same year.

A base historian reports the first recorded air show at what is now Edwards took place on Army Day, April 6, 1945, on what was then Muroc Army Airfield. Attendance was set at 5,000 and about 1,500 of those paid to stand in line for Army chow.

Attendance blossomed in the 1950s as the Edwards mission profile expanded. And in subsequent decades appearance of legendary air and space programs, including the X-15, XB-70, NASA Space Shuttle, SR-71 Blackbird, and B-1 and B-2 bombers, propelled attendance to incredible heights. Two-day attendance at Edwards air shows totaled more than 100,000, always spurred by appearance of the Thunderbirds.

Additionally, this year base officials estimate about 10,000 school children to be bused-in on Friday for a new Science, Technology, Engineering and Math Expo in massive Hangar 1600 and across a flightline ramp full of static aircraft. In another first, young eyes will witness the full airshow on the Friday that was traditionally a closed rehearsal. The base will remain closed to the public on that day.

Whether flying by, performing aerobatics, or parked for closeup inspection, things with wings are the starring attractions. And the Edwards AFB Open House is one of the few bases where such a large and comprehensive collection of military aircraft from all branches come together on rare occasions.

Many of the aircraft, including the pioneering X-Planes and America's fleet of Space Shuttle Orbiters, first flew and landed at Edwards, one of a few places

See **AIR SHOW**, Page 3

## Catch a blast from the past and a new air show wave



Air Force photo by Staff Sgt. Andrew D. Sarver





# A Great Loss in Aerospace: Brian Binnie has Flown West

by Cathy Hansen  
special to Aerotech News

Sept. 14, 2022, was a sad day in aerospace with the loss of a great test pilot and friend to many in this community.

These words were posted on his Facebook page: "With overwhelming grief, sadness, and sorrow we announce the passing of our beloved Brian. Arrangements are being made at this time for Brian's final resting ceremony to take place at Arlington National Cemetery in Virginia. We kindly ask for privacy during this time for our family to grieve the loss of our husband, father, brother, and friend. More information will be announced as we prepare to celebrate Brian with full military honors and his life as an American hero"

On Oct. 4, 2004, Brian Binnie flew SpaceShipOne for the second Ansari X Prize flight. He soared to a record height of 367,442 feet, exceeding Mach 3 and broke the altitude record set in 1963 by the North American X-15. Binnie became the world's second Commercial Astronaut, as well as the first Scotsman, to reach space.

Binnie flew two "firsts" in SpaceShipOne: the first supersonic flight, and the flight that won the \$10-million Ansari X Prize. These flights were the first and last powered flights of SS1. The first powered flight was on the 100th anniversary of powered flight, Dec. 17, 2003. The rocket engine was lit for just 15 seconds and Binnie was propelled to a speed of Mach 1.2 and a height of 67,800 feet.

We have the opportunity to relive these flights from Brian's point of view in his book – "The Magic and Menace of SpaceShipOne." Binnie recently completed the book about SpaceShipOne — that marvelous program, under the helm of Burt Rutan, from 2001-2004. It is colorful and humorous, with an entirely different perspective from anything previously written.

Binnie was born in West Lafayette, Ind., in 1953. His Scottish father was a professor of physics at Purdue University. When Binnie was five, the family returned to Scotland and his father taught at Aberdeen University. His formative years were in a country very different from America. When he was a teenager, the family moved back to America and settled in Boston.

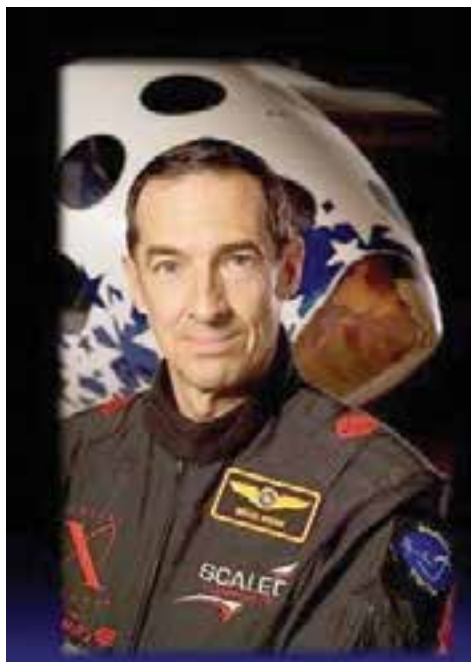
He gave one of the most inspiring speeches I have ever heard at a Veterans Day Ceremony at Mojave Airport in 2006. He is a true patriot and loves America.

He said, "When this great nation is called to arms, as the saying goes, we fight to protect our way of life, liberty and the pursuit of happiness. In a word we fight for FREEDOM And Veteran's Day remembers those who have fought."

In some parts of Scotland at the time, Protestants and Catholics are segregated and went to separate schools. Binnie was surprised when he started high school in America and everyone attended the same schools. He was surprised to see that nobody cared about that difference.

He said, "I learned that immigrants came here from the world over and were embraced by the bright shining beacon that was the Statue of Liberty and Ellis Island. What made this nation strong and unique in the world was that of all these different cultures were willing to buy into the core belief that all men are created equal and that individualism and a free market would trump over anything any government could manage or direct.

I believe that this great melting pot is often misrepresented today as our obligation to "celebrate diversity." It was or is nothing of the kind. They choose instead to overlook their differences because they had a more important need to satisfy, Freedom."



Courtesy photograph

Brian Binnie

He stated, "But here in Mojave, the irrepressible nature of the American spirit shines brightly. Our agenda may not be as fundamental as life, death and war but we are very much involved in our version of liberty and the pursuit of happiness."

"I can think of few activities as liberating or rewarding as flying. And our more recent extension of this pursuit to rockets, space ships and suborbital flight has put little old Mojave, front and center on the global map of pioneers."

Binnie refers to Burt Rutan, Founder of Scaled Composites and designer of SS1 as the King of Dreams. "It has been the freedom that Mojave has afforded those that came here to tinker, test, try and fail that has made it so special. Yankee ingenuity, unfettered by rules, regulations and red tape. It's a winning combination every time it's tried."

At an event for the Experimental Aircraft Association, Binnie said, "Nothing could compare to piloting the little spaceship Burt built."

Binnie was interested in flying from an early age. He has a Bachelor of Science in aerospace engineering; Master of Science in fluid mechanics and thermodynamics from Brown University;

Master of Science in aeronautical engineering from Princeton University; he served 21 years in the U.S. Navy as a naval aviator; graduate of the U.S. Navy's Test Pilot School (Class 93, June 1987-May 1988) at Patuxent River, Md. In the Navy, he flew the A-7 Corsair, A-6 Intruder, F/A-18 Hornet and AV-8B Harrier.

Binnie co-piloted the Rotary Rocket Roton in 1999. Flying the Roton was extremely challenging, to say the least as visibility in the cockpit was so restricted that the pilots nicknamed it the Bat-cave. They couldn't see the ground at all and had to rely on a sonar altimeter to guess where the ground was. The entire Roton wanted to spin due to the torque of the spinning rotor blades, so they had to counteract the yaw thrust in the opposite direction, and at the same time keep it moving down the runway.

First flight was early in the morning on July 28, 1999, with three short hops rising above the runway only eight feet. The second flight, on Sept. 16, lasted 2-minutes and 30-seconds reaching an altitude of 20-feet. More powerful rotor tip thrust-ers had been installed which made the sustained flight possible.

The third and final flight was on Oct. 12 and the ATV reached a speed of 53 miles per hour, at 75-feet above the ground and flew almost half way down Runway 30. It flew close to one mile, at 4,300-feet.

During his time in the Navy, Binnie logged more than 4,300 flight hours, served five operational carrier tours that included 490 carrier landings, as well as combat operations associated with all of Desert Shield, Desert Storm and subsequently Operation Southern Watch. He had 13 years of experience in flight-test at each of the Navy's three principal RDT&E sites, which has involved performance, software and weapon systems testing. He had flown 37 different aircraft and was a licensed Airline Transport Pilot.

Binnie was a member of the Society of Experimental Test Pilots and a published member of the American Institute of Aeronautics and Astronautics.

"We will always treasure the times shared with this talented and compassionate man. He was a wonderful friend to many in the aerospace community and will be deeply missed. Praying God's blessings of peace on his wife, children and family."



Courtesy photograph

From left: Brian Binnie, Paul G. Allen and Burt Rutan.

## Readers' Services

**How to contact**  
**Aerotech News and Review**  
Email: [editor@aerotechnews.com](mailto:editor@aerotechnews.com)  
Phone: 661-945-5634  
Fax: 661-723-7757  
Website: [www.aerotechnews.com](http://www.aerotechnews.com)

**Advertising Corporate Headquarters:**  
877-247-9288  
Email: [sbueltel@aerotechnews.com](mailto:sbueltel@aerotechnews.com)

**Subscriber Services**  
Subscriptions to  
**Aerotech News and Review**  
are \$59 for six months  
or \$89 for one year.

For more information, contact  
the subscription  
department at: 661-945-5634

**Story ideas, letters, editorials**  
Please send all letters and editorials  
to Stuart A. Ibberson, Editor,  
at [editor@aerotechnews.com](mailto:editor@aerotechnews.com).

**Web Site**  
Access the **Aerotech News and Review**  
web site at [www.aerotechnews.com](http://www.aerotechnews.com)

Submissions for upcoming events,  
air shows and museums should be  
emailed to [editor@aerotechnews.com](mailto:editor@aerotechnews.com).

For questions concerning the web site,  
contact the webmaster at  
[webmaster@aerotechnews.com](mailto:webmaster@aerotechnews.com).

**Where you can get**  
**Aerotech News and Review**  
For information on  
Aerotech distribution,  
call 661-945-5634 or visit  
[www.aerotechnews.com/distribution](http://www.aerotechnews.com/distribution).

**Aerotech News and Review** is published  
the first Friday of the month, serving  
the aerospace and defense  
industry of Southern California,  
Nevada and Arizona.

News and ad copy deadline is noon on  
the Tuesday prior to publication. The  
publisher assumes no responsibility  
for error in ads other than space used.  
Your comments are welcomed and  
encouraged. Write to the address below.

- Publisher ..... **Paul Kinison**
- Business Manager ..... **Lisa Kinison**
- Editor ..... **Stuart Ibberson**
- National Advertising  
Manager ..... **Paul Kinison**

**Aerotech News and Review**  
email: [editor@aerotechnews.com](mailto:editor@aerotechnews.com)  
Visit our web site at  
[www.aerotechnews.com](http://www.aerotechnews.com)



## AIR SHOW, from 1

in the world where such an extraordinary family reunion is possible.

Art Thompson, Chairman of the Board of Directors for the Flight Test Historical Foundation, remarked, "While Kitty Hawk is revered for the first powered aircraft flight, The first of everything else was started here," in the Aerospace Valley.

Visitors using the Rosamond Boulevard West Gate entry to Edwards from SR-14 may get a first glimpse of the non-profit group's steel walls rising from foundations poured alongside Rosamond Dry Lakebed. Ahead, and just before reaching restricted base property at the guard post, visitors will see the landmark Century Circle.

Lisa Brown, director of education and community outreach, said the museum's educational center will be a worldwide crossroads, bringing together and inspiring future generations of aerospace technologists, engineers and research scientists.

Among the museum's major attractions for researchers, educators and historians will be the Bob Hoover Research Library and the Society of Experimental Test Pilots (SETP) Archives. Brown concluded, "Our mission is to elevate this Valley."

### Starring performers

The USAF Thunderbirds  
USAF Wings of Blue Parachute Team

C-17 Globemaster III West Coast Demo Team

From Edwards: F-22 Raptor, F-35 Lightning II Variants, F-16 Viper, T-38 Talon, C-12 Huron, B-52 Stratofortress, B-1 Lancer, KC-135 Stratotanker, C-17 Globemaster III.

From NASA Armstrong FRC: F-15B/D Eagle, F/A-18D Hornet,

Additional Demonstrators: Ace Maker Airshows, John Colver "Wardog" Airshows,

Vicky Benzing Aerosports, "Race To Mach 1" Demo, MiG-29 Fulcrum (Jared Isaacman)

### Up close and personal

From Edwards: F-22 Raptor, F-35 Lightning II variants, F-16 Viper, T-38 Talon, C-12 Huron, B-52 Stratofortress, B-1 Lancer, KC-46 Pegasus, KC-135 Stratotanker

Other Air Force aircraft: Beale AFB, RQ-4 Global Hawk; Travis AFB, C-5M Super Galaxy and a NASA C-20A

Featured Exhibits: Calspan X-62 Vista; Scaled 281 Proteus; Rutan Long-EZ; Howard 250;

Convair BT-13A; Antonov AN-2; Fairchild PT-23; Pratt & Whitney F-135 jet engine; Lockheed L-1011 Tristar "Stargazer;" Stratolaunch Talon A Hypersonic Vehicle and a Northrop Grumman Firebird; Boeing F/A-18 Super Hornet and an Air Force A-10 Thunderbolt II, more popularly called the "Warthog."

Hands-on Simulators: Popular with young and older air show fans are flight simulators, at least two of which

**On the cover:** The United States Air Force Air Demonstration Squadron, known as the Thunderbirds, perform for the Fairchild Skyfest Air Show at Fairchild Air Force Base, Washington, May 13, 2022. The Thunderbirds represent the pride, precision, and professionalism of nearly 700,000 total force American Airmen around the globe.

are on schedule at Edwards. The General Atomics UAV Simulator lets the pilot replicate the missions of a real life drone pilot flying a mission from half-a-world away.

Also appearing for the Air Show and the STEM day will be the new flight simulator from AviNation Magazine, a national media platform featuring stories for and about students aspiring to careers in aviation. In the words of founder and CEO Jack Peed, "Our mission is to attract, educate, and empower youth in aviation."

Early in the week the AviNation American Dream Tour will send aerospace speakers to high schools in Santa Monica, Bakersfield and Palmdale's Engineering Academy.

Chase Kohler, chief of media operations for the 412th Test Wing at Edwards, said the base, located within the boundaries of three counties — Kern, Los Angeles and San Bernardino — is a benefactor to the entire regional economy. It takes more than 1,200 volunteers to operate the event.

Whether new in town or a local air show fan from way back, each visitor may have a lot in common in figuring what to expect this entirely new Aerospace Valley Air Show.

Unofficial guidance for visitors falls under the traditional motto of Edwards AFB: Ad Inexplorato, Latin for Toward the Unexplored. The motto could fit because this is the first air show at Edwards since 2009. Many things have changed. Needing to arrive early isn't one of them.

The only two gates open to the public are West Gate on Rosamond Boulevard off SR-14, and North Gate off SR-58 north of Mojave. Gates originally scheduled to open at 8:30 a.m. are now reported online to open at 9 a.m. And both gates into the base will close 2 ½ hours later at precisely 11:30 a.m., no matter how many cars have entered or how many remain in line outside.

The old Edwards air show of old came to be known for traffic jams entering and leaving the base, especially on State Route 14, where traffic was jammed for miles.

With time, better technology, communications and collaboration between military, local and state law enforcement and transportation departments, drivers may notice improved directional signs and receive important electronic messages on mobile devices.

Entry and exit traffic movement is expected to be improved by adding one extra inbound lane in the morning, reversing that lane's direction for exiting.

A non-official idea that might shorten waiting time at the gate for drivers coming from the south is to use the North Gate on Highway 58, which historically experienced shorter lines onto the base, and a shorter drive from gate to parking.

For those unfortunate to be sitting in line when the gates to Edwards shut at 11:30 a.m., there is an alternative

aerospace landmark destination to save the day and avoid a wasted trip.

The City of Palmdale's 26-acre outdoor Joe Davies Heritage Airpark and the adjacent Blackbird Airpark, operated by the Flight Test Historical Foundation, are located in the shadow of Air Force Plant 42, where many of the nation's military and civilian aircraft and missiles were produced and flight tested since World War II. From SR-14, travel east on East Avenue P (Rancho Vista Blvd.)

Heritage Airpark's inventory lists 21 aircraft, including a B-52, NASA's 747 Shuttle Orbiter Transporter and a scale model B-2. Blackbird Airpark has the spy plane collection, including the SR-71, YF-12A and the U-2.

Both museum sites are open to the public on Saturdays and Sundays.

Parking and admission are free.

While there's no charge for entry to the Air Show or for general area parking, visitors must provide their own shade and place to sit. And with security rules limiting the size of containers, a small bag and a folding chair are the maximum. Water is free, and food and beverage concessions accept cash or major credit cards. But there are no ATM machines.

Those who can afford it may buy upgrades from several privately operated ticket vendors online. Advertised prices range from top-end VIP premium box seats just north of \$700 a head, to various levels on the creature comforts scale as low as \$70 per person.

One high-roller package offers,

"Exclusive viewing area • In-and-out privileges from the box seating area • Dedicated concessions and restroom facilities • Children ages 3 & under admitted free (lap only)"

Then, there's the Flight Line Club: In-and-out access from club area, front line seating in a spacious exclusive area, and reserved tables of four available for the reclusive. Single seats not available). Lunch can be catered or buffet-style, and water and soft drinks are included.

Restrooms are private and "premium." Children ages 3 and under are free to sit on a lap. There is one proviso. No refunds on Premium/VIP tickets. But free to all are the Kids Zone, and a beer garden for grownups to buy a brew.

**AEROSPACE VALLEY**  
OPEN HOUSE, AIR SHOW & STEM EXPO

Featuring the  
**U.S. AIR FORCE THUNDERBIRDS**

**OCTOBER 15-16, 2022**  
**EDWARDS AIR FORCE BASE, CA**

**BREAKING TOMORROW'S BARRIERS TODAY**

**AVAIRSHOW.COM**

75 YEARS OF SUPERSONIC FLIGHT 1947 2022

729554



# Legacy of science, engineering in SOFIA's retirement

by Abigail Tabor  
NASA

The Stratospheric Observatory for Infrared Astronomy (SOFIA) was a mission of discovery, revealing unseen — and sometimes unseeable — parts of our universe.

As the mission draws to a close with the last flight ending on Sept. 29, NASA is taking a look back at the scientific accomplishments of SOFIA and some of the feats of engineering that let it fly.

“From deepening our understanding of water on the Moon to revealing the invisible forces of cosmic-scale magnetic fields, none of it could have happened without the hundreds of people who contributed their expertise to the SOFIA mission,” said Naseem Rangwala, the mission’s project scientist at NASA’s Ames Research Center in California’s Silicon Valley.

From the start of its development in 1996, SOFIA required engineering ingenuity. A Boeing 747SP jetliner had to be modified to carry the 38,000-pound, 100-inch telescope provided by NASA’s partner on the SOFIA mission, the German Space Agency at DLR.

Engineers at Ames developed a garage door-like mechanism that rolled up to let the telescope observe the skies. In that configuration, it was “one of the largest open ports ever flown on an aircraft,” said Paul Fusco, a NASA engineer, now retired, who helped design the door system, “and the largest certified to fly at all altitudes and speeds with the door open. It was a really thrilling aviation innovation.”

The mission’s pilots couldn’t even feel when the door was open. And the stability of the telescope itself was equivalent to keeping a laser pointer steady on a penny from 10 miles away. SOFIA had achieved a smooth flight and a steady gaze.

And that was only the beginning. By 2014, the observatory had reached its full operational capability, and for eight years SOFIA helped astronomers around the world use infrared light to study an impressive array of cosmic events and objects invisible to other telescopes.

“SOFIA’s unique scientific achievements were the result of the ingenuity of the incredible international community that grew up

See SOFIA, Page 5



NASA photograph

## TIMES CHANGE — TRUTH DOES NOT



# WESTSIDE

CHRISTIAN FELLOWSHIP

## Westside Christian Fellowship West Palmdale Leona Valley

### Find more at [WCFAV.org](http://WCFAV.org)

## SOFIA, from 4

around the mission,” said Alessandra Roy, SOFIA project scientist for the German Space Agency, “which was only made possible by the collaboration of NASA and DLR.”

A community of high school teachers also came to know SOFIA personally, through the NASA Airborne Astronomy Ambassadors program. This professional development opportunity included an immersion experience flying aboard SOFIA with scientists and crew members. Participating teachers were able to bring this real-world science content back to their classrooms and reveal diverse STEM-related careers to students.

Now, the observatory is being retired. Science flights have ended, and the team is exploring options for a fitting permanent home for this special aircraft. SOFIA’s data from a total of 732 nights observing over the course of the mission will also be publicly available for scientists to study and conduct further research in the future.

“Infrared astronomy will go on at NASA, most notably with the James Webb Space Telescope,” said Paul Hertz, senior adviser for NASA’s Science Mission Directorate, former Astrophysics Division director, and former SOFIA program scientist. “But SOFIA’s many and diverse contributions to science have already left their mark.”

Here are some ways in which SOFIA changed our understanding of the universe.

### Discovery of water on sunlit portion of Moon

Although SOFIA’s telescope wasn’t originally configured to look at the Moon, its lunar observations confirmed, for the first time, water on the sunlit surface of the Moon. This meant water may be distributed across the lunar surface, and not limited to cold, shadowed places.

NASA is eager to learn about water on the Moon in advance of sending humans to the lunar surface with the Artemis missions. SOFIA’s data also adds to the work of future Moon missions, such as NASA’s water-hunting Volatiles Investigating Polar Exploration Rover.

The Moon was not SOFIA’s only target in our solar system. The observatory also studied the circulation of gases within Jupiter’s atmosphere, the possibility that comets delivered carbon to planets like Earth, and, just recently, the asteroid that will be explored by NASA’s Psyche mission — to name a few.

### Finally detected: First type of molecule to form in universe

After decades of searching by astronomers, SOFIA detected, for the first time in space, the first type of molecule that ever formed in the universe.

SOFIA’s work in astrochemistry also shed light on one way water gets distributed in the universe. The mission explored the life cycle of materials in space, too: clouds of simple gases that form more complex gases and, ulti-

mately, stars and star systems.

### Ultra-time-sensitive observations

SOFIA’s mobility allowed it to capture extremely fleeting events in astronomy over remote locations.

In 2015, Pluto passed directly between a distant star and the Earth, giving scientists a rare chance to analyze its atmosphere while backlit by the star. And the only observatory that could position itself over the open ocean, directly in the center of Pluto’s shadow racing across Earth’s surface, was SOFIA.

SOFIA was nimble, which also helped it provide long-term monitoring — as for a surprisingly long, bright outburst by a protostar in the Cat’s Paw Nebula — and respond quickly, when needed. This was the case in 2014 when an exploding star, a supernova, was spotted — the brightest and closest to Earth in decades.

### Revealing the magnetic universe

SOFIA’s most paradigm-shifting contributions may have been in letting astronomers “see” and map magnetic fields on smaller scales than ever before.

One study revealed magnetic fields, once thought to slow star birth by preventing gravity from pulling raw material into a growing star, may sometimes work with gravity to nourish the birth of stars.

SOFIA studied the roles magnetic fields play in the cosmos across a range

of scales — from star formation on the “small” end to phenomena shaping entire galaxies, feeding blackholes, and causing whole galaxies to merge.

### New way to study Earth’s atmosphere, climate

Flying at 38,000 to 45,000 feet, SOFIA soared above 99.9 percent of the water vapor in Earth’s atmosphere that obscures infrared observations from the ground. But the telescope still peered through the upper reaches of our atmosphere.

After developing ways to work with SOFIA data on this hard-to-study region, researchers were able to make direct measurements of atomic oxygen in Earth’s upper atmosphere.

Studying other atmospheres was already in SOFIA’s wheelhouse. Observing the occultation of a star by Neptune’s moon Triton revealed secrets of its atmosphere, while a challenging set of observations of Venus could help shed light on reports of phosphine, a potential biomarker for microbial life, in that planet’s atmosphere.

### A star is born — or not

By observing in infrared light, SOFIA revealed secrets of star formation that would otherwise have remained hidden inside massive clouds of gas and dust.

One major area of research for SOFIA involved an effect called “feedback,” where stars either help or hinder the creation of more stars in their

neighborhood. Using SOFIA’s data, researchers found that a stellar wind in the Orion Nebula is clearing a bubble free of material needed to form new stars, while, in another nebula, the original star is triggering the birth of new generations.

Astronomers learned all these things and many more as SOFIA explored the universe from 40,000 feet. Even as the mission winds down, making way for the next chapter in infrared astronomy, the discoveries made from the observatory’s data will go on. SOFIA’s legacy and that of the entire team who made the mission fly is to have taught humanity more about the cosmos and inspired others to do the same.

SOFIA was a joint project of NASA and the German Space Agency at DLR. DLR provided the telescope, scheduled aircraft maintenance, and other support for the mission. NASA’s Ames Research Center in California’s Silicon Valley managed the SOFIA program, science, and mission operations in cooperation with the Universities Space Research Association, headquartered in Columbia, Maryland, and the German SOFIA Institute at the University of Stuttgart. The aircraft was maintained and operated by NASA’s Armstrong Flight Research Center Bldg. 703, in Palmdale, Calif. SOFIA achieved full operational capability in 2014 and concluded its final science flight on Sept. 29, 2022.



# You could miss out, or you could choose USAA.

Members switched and saved  
an average of \$725 per year.<sup>1</sup>

If you know, you know.  
If you don’t, we do.



100  
★ ★ ★

AUTO  
INSURANCE

[usaa.com/auto](https://usaa.com/auto)

<sup>1</sup>Potential average annual savings, rounded to the nearest \$25 increment, based on countrywide survey of new customers who switched to USAA and self-reported savings from March 11, 2019 to March 18, 2021. Individual savings may vary and isn’t guaranteed. Use of the term “member” or “membership” refers to membership in USAA Membership Services and does not convey any legal or ownership rights in USAA. Restrictions apply and are subject to change. Automobile insurance provided by United Services Automobile Association, USAA Casualty Insurance Company, USAA General Indemnity Company, Garrison Property and Casualty Insurance Company, based in San Antonio, TX; USAA Limited (UK) and USAA S.A. (Europe), and is available only to persons eligible for P&C group membership. Each company has sole financial responsibility for its own products. No Department of Defense or government agency endorsement. © 2022 USAA. 280415-1021



*On this date...*



**Oct. 9, 1999:** The final flight of an SR-71 Blackbird took place during the Edwards AFB Open House and Air Show. The aircraft was assigned to the NASA Dryden (now Armstrong) Flight Research Center. The aircraft was one of two, loaned to NASA by the U.S. Air Force, and used as testbeds for high-speed and high-altitude aeronautical research at Dryden.



**Oct. 12, 1954:** North American test pilot George "Wheaties" Welch died when the F-100A-1-NA Super Sabre, serial number 52-5764, crashed.



**Oct. 12, 1964:** The North American Valkyrie reached supersonic speed (Mach 1.11 at 35,080 feet) for the first time during its third flight. North American test pilot Al White reported a smooth transition from subsonic to supersonic flight.

**Oct. 10, 1972:** The competitive fly off between the Northrop YA-9 and Fairchild YA-10 begins, continuing until Dec. 9. On Jan. 18, 1973, the Air Force announced that the winning aircraft was the A-10.



**Oct. 14, 1947:** Capt. Chuck Yeager broke the sound barrier. At approximately 45,000 feet above the desert, Yeager fired the rocket engines on the Bell X-1, nicknamed Glamorous Glennis after his wife, he was piloting. The aircraft was carried aloft beneath a modified B-29 Superfortress, where it was air launched. Accelerating to 700 mph, he became the first human to official travel faster than the speed of sound in level flight. The data from this and subsequent flights helped pave the way for many more firsts in the supersonic era.

Alan  
Jackson  
Pools  
Inc.



**Managing Partner  
California's Custom Pool & Spa Builder**

**661-273-7231** HAYWARD

**www.alanjsonpools.com**

**KEEP ROLLING THIS  
SEASON WITH MICHELIN®**



**MICHELIN**

*For all your  
automotive service  
and tire buying needs!*

**TIRE XPRESS**

*You're In... You're Out*

**MICHELIN®  
DEFENDER® T+H  
Comfort Control  
Technology™**

*Helps ensure ride  
satisfaction while  
minimizing noise  
with the road.*

42151 50TH ST WEST | QUARTZ HILL  
661-772-3011  
TIREXPRESSINC.COM





# #1 Homebuilder in the Antelope Valley! \$5,000 INCENTIVE\*

for active military, retired, and service personnel to use towards options or upgrades

**Pacific Creekside Encore**  
**NOW SELLING**  
2105 Cork Oak St., Palmdale  
(661) 742-6255

**LARGE 1 & 2-STORY HOMES**  
**West Palmdale**  
2,207 - 2,741 Sq. Ft.  
Up to 5 Beds, Up to 4 Baths

**From the low \$700,000's**

**Pacific Marigold Encore**  
**FINAL OPPORTUNITY**  
1758 East Holguin St., Lancaster  
(661) 946-3523

**SINGLE-STORY HOMES**  
**CHALLENGER WAY AND AVE. I**  
1,867-2,462 Sq. Ft.  
Up to 5 Beds, Up to 3 Baths

**From the Mid \$500,000's**

**Pacific Wildflower**  
**NOW SELLING**  
E. Ave. R and 35th St., Palmdale  
(661) 733-8974

**1 & 2-STORY HOMES**  
**CLOSE TO SCHOOLS**  
2,179-3,230 Sq. Ft.  
Up to 5 Beds, Up to 3 Baths

**From the High \$500,000's**

[PacificCommunities.com](http://PacificCommunities.com)



Prices, terms, and features are subject to change without notice. Homes are subject to prior sale. Photos are representational only. Buyer must sign contract and close escrow per the purchase agreement on a home at one of the above listed communities. \*\$5,000 incentive and can be used towards options and upgrades. This promotion begins August 9, 2022 and expires December 31, 2022. Proof of employment must be presented to obtain incentive (recent paystub and/or military identification will be required). Only one promotion per purchase contract can be used. Cannot be combined with broker co-op. Terms and conditions are subject to change without prior notice. Pacific Communities reserves the right to change features, elevations, community information, materials and pricing without notice or obligation. Drawings, renderings, square footages, floor plans, elevations, features, colors and sizes are approximate and for illustration purposes only and will vary from the homes as built. Not all features available in all plans. CA BRE License # 01154693; Contractor's License # 660968.



# Burt Rutan revolutionizing publishing with autobiography

by Larry Grooms  
Aerotech Contributor

Burt Rutan, the visionary engineering genius who revolutionized the design, fabrication and performance of air and spacecraft, has emerged from retirement to do for publishing what he did for flying — reimagine and reinvent it.

In a news release emailed to Aerotech News, Rutan included links to what he calls BRAB, the Burt Rutan AutoBiography.

Breaking the limiting barriers of printing and binding, BRAB is a digitally unconstrained, searchable and interactive multi-media record of one extraordinarily gifted man's human experience, memories, body of work, opinions and relationships. And it welcomes feedback from visitors to the website.

The plan is to release this living document in sections over several years. Rutan explains in his announcement that initially BRAB will be released in sections over several year, free to be downloaded with restrictions on distribution.

As envisioned in Rutan's introduction, BRAB would offer the informational resources of a traditional brick and mortar library, but with universal access and without requiring construction costs. Given Burt Rutan's career accomplishments and universal recognition, a complete picture of his life and times would likely rival the size and scope of a Presidential Library. Five of his creations are, after all, on permanent display in the Smithsonian Air & Space Museum.

Burt thought a website focused on correcting inaccurate or misleading information would be helpful to those researching his activities. In compiling and reviewing online material, Burt wanted to also share fun-to-read stories — all free to download for an online adventure.

The table of contents divides the autobiography into nine sections incorporating 86 chapters. The first three sections offer chronological history from childhood through Air Force Flight Test-

ing and the home-built era from 1968 to 2005. Section Four covers the Scaled Composites years from 1981 to his retirement in 2011. Section Five is devoted to Leadership Lessons Learned. Six includes four chapters on meeting and dealing with famous people.

In Chapter Seven, Burt opens the personal side with stories of important life experience, including "Five Romantic Relationships," and the intriguing "Russian Wing-Ship Project- Getting Arrested in Moscow."

Section Eight is a revealing introspective on "The Big Questions," beginning with "What Did I Accomplish?" And Section Nine examines "Hundreds of Preliminary Designs That Never Flew," and the always titillating roses, brickbats and last words on media coverage.

BRAB already has more than 100 links to major media articles and video interviews and features.

Burt explains, "My son, Jeff, is working on a professional web-based application that will give readers a far better way to navigate BRAB on any device and seeing what is released and what will be released in the future."

That web Application will be posted at burtrutan.com when completed.

Burt goes on to say, "When will BRAB be finished? I expect it will take about a year to release all the 86 chapters ... Then maybe I can finally retire. Actually, BRAB will not have a finish-line since we plan to always keep updating it."

The Table of Contents is at:

<http://burtrutan.com/downloads/BRAB-TOC.pdf>

Included in this release are 6 of the 86 Chapters and documents that describe the contents of all of the nine Sections. Readers can access all 16 of the first-release documents at

<http://www.burtrutan.com/home/brab/>

There are no restrictions on distribution of any

The screenshot shows the BurtRutan.com website. At the top, there are navigation links for News, Aerospace, Hobbies, Gallery, and Links. Below that is a search bar. The main heading is "Home • Why This Website". The text explains that Burt retired on March 31, 2011, and is not currently selling anything. It mentions that the website is focused on collecting accurate or misleading information. There is a "Why This Website" sidebar with links to BRAB, Biography, Lectures, Awards, and FAQ. Below that are three images: a car, a model airplane, and a white aircraft fuselage. The "BRAB (Burt Rutan AutoBio)" section states that Burt is working on an autobiography featuring hundreds of fun-to-read stories. There is a "Latest News..." section with two featured articles: "Fifth Annual BOB HOOVER" and "Burt Rutan and His Airplanes - Oshkosh Adventure 2011".

of the BRAB information, which can be used and published at any time, without permissions to publish. And Rutan says no fees or royalties are asked.

He says, "The next Chapter for release will be Chapter 35, about my Legacy-Milestone — the first (and still only) Manned Space Program that was done without help or without funding from any government.

"Also, you are encouraged to provide feedback

to help us improve BRAB. If you see errors or want to suggest additions or deletions, just tap on the [brab@burtrutan.com](mailto:brab@burtrutan.com) link to send an email with your comments.

Although officially retired, Rutan suggest in his announcement, "Actually I hope to first develop at least one more Manned Research Aircraft, to bring the total to the nice round-number of 50."

Meanwhile, he says he's "Lookin up ... Way up."

## New life support system will help F-15s reach new heights



NASA photograph

Two of NASA's F-15 research aircraft takeoff in support of a test mission at the Armstrong Flight Research Center at Edwards, Calif.

by Jim Skeen  
NASA Armstrong

When NASA's supersonic X-59 aircraft takes to the skies over the Armstrong Flight Research Center at Edwards, Calif., it will be accompanied by two of NASA's fastest research and support aircraft, both F-15s.

In each of their cockpits, a pilot and a technician will be able to breathe

easier thanks to life support upgrades.

As an aircraft gains altitude, the atmospheric pressure around it decreases, and oxygen molecules spread out — meaning a pilot gets less oxygen with each breath. This can lead to hypoxia, a deficiency of oxygen reaching the brain and other tissues of the body. Pilots have to train to recognize the symptoms, which can include headache, lightheadedness, dizziness, tun-

nel vision, even loss of consciousness.

Passenger planes — even supersonic ones — address this by keeping their cabins pressurized. They have systems that pump air into their cabins and adjust those levels depending on their altitudes.

Jets like the F-15s, which were designed as fighters, work differently. Their cabins are pressurized to maintain a lower cabin altitude when fly-

ing at high altitudes. In the event of a cabin pressurization issue resulting in cabin altitudes above 40,000 feet, pilots need to use masks that employ "positive pressure breathing," a system that helps push oxygen into their lungs, according to Brian Griffin, deputy operations lead for NASA's Low Boom Flight Demonstrator Project.

"Pretend you're breathing through an inflated balloon," Griffin said. "If you don't control it, the air in the balloon will rush back into your lungs. And to exhale you have to push harder than the balloon is pushing back at you."

Ben Cacanindin, X-59 aircraft operations engineer, puts it a bit more colorfully: "It's like sucking on a leaf blower."

The F-15s legacy systems used some positive pressure breathing, but not enough. That's why NASA is switching to a system developed for the F-22 fighter jet, which does provide the extra positive pressure, he said. The new life support system includes an emergency oxygen bottle geared for higher altitudes, common on Air Force F-16s and A-10 aircraft, but new to NASA Armstrong's F-15s. The emergency air supply attaches to the ejection seats.

To accommodate the new emergency oxygen bottles and regulators, NASA Armstrong crews had to do quite a bit of work.

For example, NASA Armstrong's Aero-Mechanical Design Group designed the new mounts for the emergency oxygen bottles, and the Aerostructures Branch validated the mounts' structural airworthiness. The crews also built a jig to help create the new clamps for the bottles.

"The parts that have gone into it we've custom designed in-house," Cacanindin said.

The new life support systems share many components with the X-59's, Griffin said. Flight crews will wear the same gear, the panel-mounted regulator will be the same, and so will the device that reduces the pressure flow from the liquid oxygen tanks to the regulator.

After the modifications to the two F-15s are finished, the new life support systems will go through ground tests and then flight testing.

The X-59, as an experimental aircraft, is designed to fly at an altitude much higher than today's typical commercial transport aircraft — but one that's typical, and safe, for supersonic passenger aircraft designs. This could provide future supersonic commercial aircraft with their own "highway" in the sky. And while NASA's testing this capability, the X-59 will have two well-outfitted chaperones.





# HERE FOR YOU WHEN YOU NEED US MOST

When skill, expertise, and compassion matter most, we bring our teams together to help turn your health around. We strive to provide quicker diagnoses, more efficient treatment, and most importantly, better outcomes.



# Italian cyclist charts grandfather's POW journey in US

by Dennis Anderson  
special to Aerotech News

A wartime odyssey that began with an Italian soldier surrendering to Allied forces is ending 78 years later with his grandson's epic bicycle trip retracing his grandfather's journey as a POW in America during World War II.

With apologies to Glen Campbell, by the time Andrea Franzoni gets to Phoenix, he won't be sleeping, but will probably need rehydrating and some rest.

"I am doing this to honor my grandfather, who was a very good man," Franzoni said, during a brief stop at the "Route 66 Classic Diner" in Santa Clarita, Calif.

Franzoni, a 32-year-old teacher who hails from near Lake Garda, Italy, has been cycling about 40 miles a day with some rest stops, on a 1,400-mile ride from Seattle to Phoenix. It's a two-month adventure that will end at the site of the camp where his grandfather was introduced to America.

If Homer was Greek, Franzoni is working out a modern-day Italian version of the Odyssey.

The trip, which took him from Tehachapi through the Antelope Valley recently, is to retrace the journey of his grandfather, Aldo Arrighi, as a POW during World War II.

"It is a trip we always joked with each other about, that someday we would do it, but we could not," Franzoni said while passing through Santa Clarita on his way to Palm Springs.

We met at the Route 66 Diner on



Courtesy photograph

Andrea Franzoni, grandson of World War II Italian POW Aldo Arrighi, with his bicycle. Franzoni is cycling from Seattle to Phoenix, retracing his grandfather's journey as an Italian POW in the United States.

in hotels, has camped out, and been a household guest along the way.

Franzoni was delighted that one of his recent hosts showed him the Tehachapi Loop, that grand spiraling railroad passage that carries freight from the High Desert country of Southern California into the Central Valley, or the other direction toward San Bernardino and beyond.

The railroads of the West were part of the journey that began for his grandfather when masses of the Italian army surrendered to the Allies in North Africa in 1943.

The Italian fascist regime of dictator Benito Mussolini was tied to the fortunes of Nazi Germany. When the Americans and British beat them, more than 50,000 surrendered Italians were shipped as POWs to the United States, along with a couple hundred thousand Germans.

"My grandfather had no use for Mussolini," Franzoni said. "He called him, 'idiota,' the idiot."

Aldo Arrighi was captured by the British. His POW transport ship landed in Newport News, Va. The troop train carried him to Arizona, and a POW Camp dubbed Camp Florence. The fortunes of war shifted more than 45,000 of the captured Italians onto the Allied cause.

Arrighi was among the 90 percent of Italian POWs who ended up working in war support in America. From Camp Florence he was back on the train, this time to the cooler, damper climes of Seattle, at Fort Lawton.

"He was part of the ISU," Franzoni said. "The Italian Service Units."

The service units were Italians actually merged into military support service in America, working in agriculture, hospitals, docks, and industry. They wore Italian uniforms, with ISU

badges. They also had an unusual degree of freedom. Arrighi even dated a daughter of Seattle, Eileen Larcher.

"He had a good experience," his grandson said. "He even had a girlfriend that he dated, Eileen, and her family, they made him welcome."

Amid 51,000 Italians taken prisoner during the war, in America, more than 90 percent of them volunteered for the ISU.

For Franzoni, his journey that began in August was a way to honor his grandfather's memory, and to explore America, the good, and the warts, and all. He lamented the sight of homeless encampments on his route. He also worries about Europe, authoritarianism, and a new war in Europe that is devastating Ukraine.

"I am a social worker," he said. And he teaches special needs children. Noting the devastation of Ukraine, Franzoni said, "War is never 'surgical.' We had our own destruction of Monte Cassino," the historic mountaintop monastery destroyed during World War II.

Photographs of his grandfather during the war show that grandfather and grandson share a resemblance to each other across 80 years of war and peace.

"He would have been 100 this year," Franzoni said. "This is my way to remember his legacy — to keep his story alive."

"His is a story that is unique." He described his grandfather's American journey as "a good chapter of a war that was terribly bad."

As with some of the Russians sent to Ukraine, his grandfather was a conscript, with no use for bullies. He was in Tunisia, unspooling telephone wire from a motorcycle when forces in North Africa overseen by Nazi General Erwin Rommel, the "Desert Fox," were

near collapse. The Anglo-American defeat of the Germans and Italians was decisive.

In 1943, Aldo Arrighi was on a troop transport ship carrying POWs, ironically, to a much greater place of safety than the war zone of North Africa and the Third Reich's desert force, the Afrika Korps. America was better than war, much better.

A less than willing conscript of Italian dictator Benito Mussolini, Arrighi ended up contributing to the Allied war effort, helping to defeat fascism in Italy and the Nazis across Europe. Amid 51,000 Italians taken prisoner during the war, in America, more than 90 percent of them volunteered for a little-known organization called the Italian Service Units. They wore their Italian uniforms, but with identification

badges, and worked in agriculture and war industries.

Ultimately, Arrighi worked in an Ordnance Depot in Tacoma, Wash. The Italian Service Unit volunteers were paid, had greater freedoms, and largely were made welcome by Americans.

One of Private Arrighi's favorite sights in America, he told his grandson, was watching the grandeur of the snow-capped peak of Mount Rainier when he was working at Fort Lewis, Wash.

Franzoni has been cycling from the environs of Mount Rainier, Tacoma, Olympia, Wash., Eugene, Ore., Sacramento, Calif., and yes, Tehachapi, retracing the "Train Long Gone" route of his grandfather's journey in America during World War II.

Before repatriation to Italy in 1946, Franzoni's grandfather received a "Certificate of Service" attesting that he served in the 28th Italian Service Co. at the Mount Rainier Ordnance Depot in Tacoma. U.S. Army Col. M.D. Mills, commanding the depot, certified that Italian POW Arrighi's service to the United States war effort was "exemplary."

Aldo Arrighi returned to his hometown of Villanuova Sul Clisi to marry his sweetheart. They named their daughter Flora, in tribute to the good experience he had as a POW in Arizona at Camp Florence.

"Flora was my mother," Franzoni said. "Fortunately, she still is!"

For much of the rest of his life, Franzoni's grandfather was chairman of his town's blood drive, Franzoni said. He managed the cinema, and worked as an electrician. Arrighi even christened his daughter with the name Flora, in honor of the POW camp where the Italians often marched off to work singing.

"He was a quiet man, my grandfather," Franzoni said. "Not many words, but he totally meant what he said."

As his grandson bicycles toward Phoenix, and the desert locale of the long vanished Camp Florence, he honors his grandfather's "exemplary service" to humanity.



Courtesy photograph

Aldo Arrighi

Soledad Canyon Road, an appropriate roadside stop, with a road trip theme, a classic Corvette, and some motorcyclists from Veterans United MC taking refreshment.

"Honor to meet ya," one of the bikers said, pumping the hand of the young cyclist whose trip can be tracked on Facebook and Instagram under the tagline "Train Long Gone — Tribute to Aldo Arrighi."

A military spouse, Sue Miller of Santa Clarita, and Leslie Lenore Underwood of Lancaster, are tracking the journey online and encouraging support and recruiting hosts for the adventure. Franzoni has rarely stayed



Courtesy photograph

Andrea Franzoni, second from left, the writer Dennis Anderson, second from right, and two biker veterans the two met at the Route 66 Diner on Soledad Canyon Road in Santa Clarita, Calif.





# JOIN TODAY!

[www.ducks.org](http://www.ducks.org) 800-45-DUCKS

A CFC participant - provided as a public service

## Metro-floors

"The Floor Improvement Store"

Contractor's License # 482566



Carpet · Hardwood · Laminate  
Tile · Waterproof Floors · Countertops

**FREE ESTIMATES**  
Installation always available

44109 N. Yucca, Lancaster

**942-1185**

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



# \$20 OFF



Shell  
**ROTELLA**

**ANY SIGNATURE OIL CHANGE**

No other offer or discount applies

**JIFFY LUBE ROSAMOND**

3100 N. Sierra Hwy. • 661-256-6008

**JIFFY LUBE TEHACHAPI**

550 Tucker Rd. • 661-822-5300



## Lancaster Baptist Church

Experience community. Discover truth.



Pastor Paul Chappell

Lancaster Baptist is a church with a friendly, family atmosphere, compassionate vision, and strong commitment to Bible truth. We offer classes specifically designed for military families and single. **Join us this Sunday at 0830 or 1100.**

[lancasterbaptist.org](http://lancasterbaptist.org)

Only 15 minutes from Edwards South Gate

661.946.4663 4020 E. Lancaster Blvd. Lancaster, CA 93535



FROM  
**\$48**  
PER MONTH!

### TWO GREAT LOCATIONS TO SERVE YOU



**UP TO 30% OFF**  
3 MONTHS ON  
SELECT UNITS



**LANCASTER**

825 W Ave L12

**(661) 535-1246**

Tue-Sat 10am - 5pm

Sun-Mon Closed

**PALMDALE**

3305 E Palmdale Blvd

**(661) 797-8034**

Mon-Fri 10am - 6pm

Sat-Sun 10am - 5pm

## Safe · Clean · Well-Lit · Secure

BEST SELF-STORAGE IN THE AV



Individual Unit  
Alarms/Security  
Extended Access  
Drive-up Convenience



# NovaStorage.com





# Near a French farm, Bleriot turned cow pen into first aircraft hangar

by Bob Alvis  
special to Aerotech News

Working on a project last week, I had lots of time to reflect about many subjects. As I sat in a nice shiny new building the thoughts started to grow in my mind, and I started to think how a simple structure can be so overlooked, when it played such an important role in the world of aviation.

My home here in *Aerotech* is called “High Desert Hangar Stories,” and that word hangar started in France many years ago, halfway around the world when aviation pioneer Louis Bleriot crashed his plane near a farm and moved the wreckage to a metal cow pen to keep it out of the

Thinking back to when that first Jenny touched down in Palmdale in a farmer’s field, storage of aircraft was not in high demand. For decades, visiting aircraft were pretty much tethered up like horses outside of a saloon, but with time came some early hangars.

Many felt that maybe it was at Muroc that the first hangar made its appearance, but in the 1930s that dry lakebed at East Camp was mostly sticks and tents. Those early birds lived life tethered down on the lakebed.

Looking back, I’m sure there were probably a few structures that were housing some planes around the Valley. In my opinion, the first real metal construction hangar to take up residence in the valley was at Carter Field that became known



Courtesy photograph

War Eagle Field hangar in Lancaster, Calif.

operated from the 1940s until its demise in the 1980s. That World War II surplus hangar was the heart and soul of Quartz Hill, and many people would use it as the landmark when giving directions.

At Muroc (Edwards Air Force Base) the arrival of those two priceless hangars at South Base installed around all the World War II support facilities had NACA and Douglas really committed to air operations out on that lakebed. The hangars started to pop up as quick as aircraft manufacturers could come up with new aircraft designs and projects. The hangars that are now at Edwards are as storied and famous as the aircraft they housed, and walking around inside of them, or just viewing from a distance, you can only imagine the thousands of stories that played out there as aircraft history was being made.

In Lancaster at the old War Eagle Field at 60th and Avenue I, three of those World War II hangars still survive, and I have been blessed to tour inside and take in the spirit of what they witnessed when America was fully committed to a world at war and how hundreds of cadets from here and around the world used it as their steppingstone to combat as they fought for the freedom of the world. Standing in the silence of one of those old survivors you can almost hear the pneumatic tools as the overnight crews of civilians worked tirelessly to make sure come daybreak that aircraft were ready for the never-ending missions of cadets in training.

Editorial restrictions keep me from sharing many more stories of locations, and I haven’t even touched on the amazing operations at Plant

42 and how a simple 1930s era hangar still stands as the cornerstone of generations of aircraft and support history.

So today, we face many different challenges when it comes to those “enclosures near a house” as it was known back in the early days. Aircraft need a safe harbor from the elements, and that goes for all generations of aircraft. If planes are not being constantly cared for, they will over time become a victim of decay.

Of course, that is also a problem—housing in a hangar requires a hangar; they are not small and not cheap. Even though the current generation of aircraft are housed properly, the historical aircraft find it difficult to find the love they need in an indoor, safe environment, and as a historian, that is a hard aspect to stomach.

We love to save our winged history, but I’m also one that feels we also need to find ways to save the structures that are the binding of the book that surrounded the stories. Just the thought that those old National Advisory Committee for Aeronautics (NACA) and Douglas hangars could not have been utilized with all that history taking place in them because of red tape and cost is heartbreaking. I was always one who felt that finding ways and answers don’t require any more effort than starting over, and when it comes to history — starting over should not be an option. “If there is a will there is a way.”

Time to put this article in the Hangar until next time, Bob out



Courtesy photograph

Lancaster Airport and its early hangar in the 1930s.

weather as he worked on it. Soon after, he contacted a company that would build him three steel hangars because he was so impressed with the function and durability of that first steel hangar.

Sure, the Wright brothers housed their planes before that, but they were just wooden sheds — more about working inside out of the weather more than a storage area.

So that word hangar was used by Louis as he took the French word Hangart or Haimgard which meant “an enclosure near a house” and went with it. It stuck, and today more than 100 years later, the word has become synonymous with aviation.

Here in the Antelope Valley, all its aviation history has relied heavily on those enclosures near our houses as the harsh conditions of our desert home are not the best for aircraft longevity. Along with that comes the unique aspect of the industry that builds, tests, and supports varied aircraft operations from civilian to military to the outreach into space.

Over many years of flying here in the Antelope Valley, we have seen the good old hangars come and go, but a few of those early ones still exist today. It’s amazing to think that all the survivors could probably fit inside the Lockheed hangar at Plant 42!

as Lancaster Airfield, located on the northwest corner of 10th street and Ave I in Lancaster.

Not long after that the flying conditions here in the Antelope Valley had small airfields popping up all over, and those hangars became a common sight around the valley. With the 1930s and the march into the 1940s, the aviation world was on fire. The industry was growing and expanding at an amazing rate and with a war looming off in the distance, construction of airfields and support facilities were spreading out across the Valley.

From Pancho Barnes’ Happy Bottom Riding Club and her hangars, to the construction of War Eagle Field in Lancaster, the future of the Antelope Valley was being put in place. Palmdale Airport, Mojave Airport and the first major structures up at North Base at Muroc would define us for generations as the Aerospace Valley.

When the major aircraft companies saw the advantages of flight testing and building production, it wasn’t long until large hangars and operations popped up all across our valley and have become as common a sight as any American city skyline.

Not to be overlooked are the small operations which also grew, and for years old hangars were a common sight also much like the somewhat famous and much-loved facility in Quartz Hill that



Courtesy photograph

Quartz Hill Airport in California’s Antelope Valley and its landmark hangar.





**Mercy Ships**  
Providing free surgery.  
Changing Lives!

[mercyships.org](http://mercyships.org)  
a CFC participant - provided as a public service

**VICTORY Baptist Church**  
10173 South Loop  
California City  
Ron Smith, Pastor  
• Sunday School 10:00 am • Morning 11:00 am  
• Sunday Evening 6:00 pm • Wednesday 7:00 pm  
For transportation from Edwards AFB call  
**(760) 373-7314**  
Independent - Fundamental  
[www.victory-baptist.org](http://www.victory-baptist.org)

**WE GO OUT ON A LIMB FOR YOU!**  
Exceptional Tree Care at a Fair Price  
*Fall is upon us*  
CA. State License #983497  
**Chads Chippers**  
**661-468-0528**  
Proud to serve the AV!  
**FREE WOODCHIP DELIVERY**  
• Lowest Rates Guarantee! • **FREE ESTIMATES!**  
• Special rates for tree trimming, stump grinding and tree removal!  
Licensed, Bonded, and Fully Insured • Locally Owned & Operated

**ASK ABOUT OUR MILITARY DISCOUNTS**



**ROSAMOND HOUSE FOR RENT**  
**Westpark**  
**2002 Home**  
**3BR/2BA**  
**1,750 Sqft.,**  
**3-Car Garage**  
**with 220V**  
Washer/Dryer and Patio  
Central Air/Heating  
Quiet, Near K-12 Schools/EAFB  
\$2,300 /Mo.+ Security Deposit  
No Smoking, Dogs or Cats.  
**Call Paul**  
**562-714-6686**

**ROSAMOND HOUSE FOR RENT**  
**Santiago Estates**  
**2006 Home**  
**3BR/2BA, 1,450 Sqft.,**  
**2-Car Garage**  
Recent Paint/Carpet  
Microwave Dishwasher  
Laundry-hookups  
Patio with a Vista  
View past Palmdale Community Pool/Spa  
Quiet, near schools/EAFB  
\$2100/mo + Sec  
No Smoking, Dogs or Cats.  
**Call Paul**  
**562-714-6686**

**TREVINO**  
LAW FIRM  
**Injury Attorney • 661.526.5012**  
**FREE CONSULTATIONS**  
Car • Truck • Motorcycle Crashes  
*Proudly serving our Military & Aerospace Community.*

**The Best DVD Collection of Old Historic Films on the Net!**  
*Over 250 great historical DVD titles to choose from*  
**Give us a try! Use Aerotech1 for 10% off**  
**Saving film history for future generations**  
**[campbellfilms.com](http://campbellfilms.com) | (909) 322-4051**

**ADVERTISEMENT OF SALE**

Notice is hereby given that the Undersigned intends to sell the Personal property described below to enforce a lien imposed on said property pursuant to sections 21700-21716 of the California Business & Professions code. Section 2328 of the DCC, Section 535 of the Penal Code, provisions of the Civil Code.

The Undersigned will sell at public sale by competitive bidding at [www.storage-treasures.com](http://www.storage-treasures.com) to end **October 29, 2022, at 9:00 am** on the premises where said property has been stored & which are located at: **Storage Solution Challenger Way, 42133 Challenger Way Lancaster, CA 93535** County of Los Angeles, State of California.

Property consists of: Clothes, Electronics, Ice chest, Furniture, Wall Art, Tools, Appliances, Kitchen Items, Tool Boxes, Backpacks, Plastic Totes, Luggage, Personal Items & More.

NAME:  
Cherise Evans  
Kerrie Kirkbride  
Debra Palacio  
Kamirr Johnson  
Mario Interrante  
Frank Rivera



**FROM \$48 PER MONTH!**

**UP TO 30% OFF 3 MONTHS ON SELECT UNITS**

**ADELANTO**  
16488 Adelanto Rd., Adelanto, CA • (760) 515-3526  
Tue-Fri 10am-5pm • Sat - 10am-4pm • Sun-Mon Closed

**Safe • Clean • Well-Lit • Secure**



Individual Unit Alarms/Security  
Extended Access  
Drive-up Convenience



**Elect**  
**BALENTINE**  
**Mojave Air & Space Port**  
**Business Owner/Pilot**

**Candidate Statement**  
**Jimmy Balentine,**  
**Director Mojave Air and Space Port**  
Selecting active members from our community to serve on the Mojave Air and Space Port (MASP) Board of Directors may be the single most important local vote you cast this election. As a native of the District and local business owner it is critical that we maintain a keen focus on the impact of MASP to our region. MASP continues to be a regional force in tangible economic development and leads a new industry in Commercialization of Space. With half of our revenue generated from an industry, which we developed, we cannot afford to allow Sacramento to craft policy, which encourages our tenants to leave for other states. With your vote, I will continue to provide sound vision and leadership representing the communities and businesses of the District to ensure we retain what was created locally.  
Thank you for your support.





### ADVERTISEMENT OF SALE

Notice is hereby given that the Undersigned intends to sell the Personal property described below to enforce a lien imposed on said property pursuant to sections 21700-21716 of the California Business & Professions code. Section 2328 of the DCC, Section 535 of the Penal Code, provisions of the Civil Code.

The Undersigned will sell at public sale by competitive bidding at [www.storage-treasures.com](http://www.storage-treasures.com) to end **October 8, 2022, at 9:00 am** on the premises where said property has been stored & which are located at: **Storage Solution Challenger Way, 42133 Challenger Way Lancaster, CA 93535** County of Los Angeles, State of California.

The following Property consists of: Furniture, Wall Art, Appliances, Personal Items & More

**NAME:**

Brenda Schramm  
Samantha Macias  
Shawn Ybarra  
Joe Azzolino  
Tommy Howard

### NOTICE OF PUBLIC LIEN SALES

Business & Professional Code Section 21700-21707

Notice is hereby given by the undersigned that a public lien sale of the following described personal property will be held at the hours of **12 noon on the 19th day of October 2022** or thereafter. The auction is being held at [www.selfstorageauction.com](http://www.selfstorageauction.com) by competitive bid. The property is stored by **Nova Storage located 825 W Avenue L12., Lancaster, CA 93534.**

The items to be sold are generally described as follows: Furniture, clothing, tools and or other household items stored by the following persons.

- 327 Collins, Jose
- 421 Teran, Paul
- 478 Miller, Cary
- 531 Guzman, Carlos
- 301 Vargas, Paulina

Date: September 27th, 2022 Signed NOVA STORAGE  
This notice is given in accordance with the provisions of section 21700 et seq. of Business & Professional Code of the State of California. The owner reserves the right to bid at the sale. All purchased goods are sold "As Is" and must be paid for and removed at the time of sale. Sales subject to prior cancellation in the event of settlement between owner & obligated party. Auctioneer: Nova Storage

### NOTICE OF PUBLIC LIEN SALES

Business & Professional Code Section 21700-21707

Notice is hereby given by the undersigned that a public lien sale of the following described personal property will be held at the hours of **12 noon on the 19th day of October 2022** or thereafter. The auction is being held at [www.selfstorageauction.com](http://www.selfstorageauction.com) by competitive bid. The property is stored by **Nova Storage located 3305 E. Palmdale Blvd., Palmdale, CA 93550.**

The items to be sold are generally described as follows: Furniture, clothing, tools and or other household items stored by the following persons.

- D220 Vincent, Roland
- A052 Jennings, Anastasia
- G574 Jennings, Anastasia
- F545 Washington, Corey

Date: September 27th, 2022 Signed NOVA STORAGE  
This notice is given in accordance with the provisions of section 21700 et seq. of Business & Professional Code of the State of California. The owner reserves the right to bid at the sale. All purchased goods are sold "As Is" and must be paid for and removed at the time of sale. Sales subject to prior cancellation in the event of settlement between owner & obligated party. Auctioneer: Nova Storage

## 2022 AEROSPACE VALLEY

# OPEN HOUSE, AIR SHOW, AND STEM EXPO

EDWARDS AIR FORCE BASE

OCTOBER 15-16, 2022



*BREAKING TOMORROW'S BARRIERS TODAY*

 **AEROTECHNEWS.COM**



# NEW HOMES IN QUARTZ HILL



## The Enclave at Quartz Hill

2,537 to 2,929 sq. ft. / Up to 5 Beds & 3 Baths  
From the Mid \$600s



**ASK ABOUT OUR QUICK MOVE-IN SPECIALS!**

8 7 7 - 3 3 1 - 8 3 7 1

[DRHORTON.COM/SOCAL](http://DRHORTON.COM/SOCAL)

**D·R·HORTON**  
*America's Builder*

Images, square footages, floor plans, elevations, features, colors and sizes are approximate and for illustration purposes only and will vary from the homes as built. Home and community information, including pricing, included features, terms, availability and amenities, are subject to change at any time without notice or obligation. Please see sales agent for complete details. D. R. Horton is an Equal Housing Opportunity Builder. D.R. Horton Los Angeles Holding Company, Inc - CA DRE License #01258550; Contractor's License #770126.







# KALEIDOSCOPE

PALMDALE'S ART & MUSIC FESTIVAL

SATURDAY • OCTOBER 8 • 10 AM-6 PM • FREE ADMISSION



## Art • Music • Food

*Spend the day enjoying free activities to bring out your inner artist, listening to lively music, viewing amazing art, watching live mural artists in action, and so much more!*

LIVE MURALISTS • ARTISAN MARKETPLACE • BRUSH STROKES LIVE  
STUDIO CLASSES • ARTLIGHT EXPO • FRESH MADE MARKET  
LIVE MUSIC • ART OF THE BREW CRAFT BEER  
ART OF THE VINE WINES • FOOD & MUCH MORE!

*Get a jump on your holiday shopping with unique handmade items*

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

FIND US ON FACEBOOK @ PALMDALE AMPHITHEATER

PALMDALE AMPHITHEATER FAMILY OF PARTNERS — THANK YOU!

