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MILITARY USEUMS

Treasures close to home!



Airplane, military museums become popular tourist attractions

by **Larry Grooms**
special to Aerotech News

Compared to most relics from human history, say mummy cases, chariots or medieval torture devices, airplanes have only been around since Dec. 17, 1903. But in that history of just under 120 years, growth in the number of museums devoted to aviation rivals the lists of far older historical collections.

Worldwide web searches defy pinning down an exact number of aviation museums globally, and even national aerospace museum tracking is imprecise because of rapid changes in exhibits, the dizzying variety of aircraft categories, eras of flight, expansion, contraction and openings and closings during financial turbulence.

If you've seen one aerospace museum — you've seen one. No two tend to be identical.

As recently as March 2022, as the pandemic emergency gave way to economic inflation, Tehachapi Municipal Airport gave birth to a new aviation exhibition, the Golden Age Flight Museum.

But large or small, much of each museum's unique identity and personality springs from the people who live it, love it and sustain it by serving mostly as unpaid volunteers performing labors of love for flying. Many volunteers had careers in aviation, ranging from former civilian and military pilots, air crew members, engineers, scientists, technicians, aircraft assemblers and mechanics.

At March Field Air Museum, where many volunteers come from military and aerospace industry careers, you might be welcomed at the entry desk by a gentleman whose former career was at Disneyland.

Affordable, family friendly

Whatever their roles, from the front counter to the gift shop to the repair shop, their skills are irreplaceable. As docents and tour guides, the volunteers uniformly deliver the information with precision, and frequently personal stories and hangar flying tales.

For Southwestern residents, many aero museums are close enough for an inexpensive family daytrip or weekend roundtrip. And for families with children visiting from other states, aero museums offer theme park level entertainment along with learning opportunities at a fraction of the cost.

At some airport museum locations, for the price of a few theme parks rides after waiting in long lines, you can treat yourself or a family member to the rare thrill of a warbird flight for as little as a couple of hundred bucks.

As a rule, the price is right and family friendly at air museums all around the region, with ample free parking standard, and admission tickets ranging from free up to a maximum adult entry fee of around \$20. And even that ticket price tops out at around \$16 for senior citizens and less for veterans, active military and young children.

One factor in planning where to visit is the matter of when to go. Coastal museums are comfortable at any month. Inland locations have short and relatively mild winters, hot and dry summers, and extended spring and fall shoulder seasons. Museums offering sheltered, climate-controlled

exhibits are always comfortable. But museums with the largest and often most dramatic static airplane displays arrange their birds under open sky. The best advice is to always dress in layers and wear comfortable shoes for walking at the larger venues.

Two questions to answer before showing up are: About how long do you want to spend here, and what, if anything, will be available to eat?

Because of location and limited opening hours, most air museums don't have on-site food service. Some have vending machines for snacks and beverages. Again, call ahead.

Depending on your group's level of interest and the size of the museum, a satisfactory visit can range from a minimum of an hour to a couple of days. On average, seeing one of the larger museums with multiple hangars, exhibit buildings and more than 30 or 40 outdoor static exhibits will require a minimum of two to three hours.

Most air museums are set up for self-guided visitors, but guided tours usually offer the best experiences, with knowledgeable docents. Some of the larger museums with outside aircraft displays provide scheduled tours on buses or trams. Make reservations. Take lots of photos and bring folding money, as some non-profit museums may not accept credit cards.

Information on most museums will be online, but it's wise to call ahead before planning a visit, as recent changes in hours of operation and other factors may not have been updated.

It's a short drive

Anywhere a tourist deplanes in the tristate region is within an hour or two of a unique and rewarding aerospace experience.

From Lindbergh Field in San Diego, visit the San Diego Air & Space Museum in Balboa Park.

And with part of a second day take a Red Car Trolley to see the San Diego Museum's Gillespie Field Annex and Aircraft Restoration Shop in nearby El Cajon.

Landing at Los Angeles International Airport, Bob Hope Airport in Burbank or John Wayne Airport in Orange County puts the traveler within easy reach of such iconic Aerospace Valley attractions as Col. Joe Davies Memorial Air Park adjacent to the SR-71 Blackbird Airpark; Mojave Air and Space Port, and the Century Circle exhibits on the site of the future Flight Test Historical Foundation Museum at the western gateway to Edwards Air Force Base and NASA's Neil A. Armstrong Flight Research Center.

Those same metropolitan airline points of entry, along with Ontario International Airport, give travelers convenient access to Chino's Planes of Fame Air Museum and the neighboring YANKS Air Museum, as well as the sprawling March Field Air Museum in nearby Riverside, with more than 100 aircraft on display.

For Arizona, topping the regional list for total aircraft on display and facility size is the Pima Air and Space Museum in Tucson, Ariz. Around 300 aircraft and missiles are on static display across 80 of its 127-acre campus.

In addition to spotlight articles on air museums featured in this special edition, Aerotech News offers an informational contact listing for most active museum within its coverage area.

Museum Tours Flight Plan

Air Force Flight Test Historical Foundation Museum — Century Circle

405 S. Rosamond Blvd. Gate to Edwards AFB
661-277-8050
<http://www.afftcmuseum.org/>

Aviation Museum of Santa Paula

Santa Paula Airport
800 E. Santa Maria Street #E
Santa Paula, CA 93060
<https://www.aviationmuseumofsantapaula.org/>

Blackbird Airpark

2503 East Avenue P
Palmdale, CA 93550
661-274-0884
<http://www.afftcmuseum.org/blackbird-airpark>

Burbank Aviation Museum/Portal of the Folded Wings

3898 Valhalla Drive
Burbank, CA 91505
818-768-7881
<https://www.facebook.com/BurbankAviation-Museum/>

CAF Southern California Wing's WWII Aviation Museum

455 Aviation Drive
Camarillo, CA 93010
805-482-0064
<http://www.orgsites.com/ca/caf-socal>

California Science Center

700 Exposition Park Drive
Los Angeles, CA 90037
323-SCIENCE, 323-724-3623
<http://www.californiasciencecenter.org>

Col. Vernon P. Saxon Jr. Aerospace Museum

26922 Twenty Mule Team Road
Boron, CA 93516
760-668-3407 (Currently open Friday-Monday). Call to confirm.
http://www.saxonaerospacemuseum.com/Museums/Saxon_Aerospace_Museum

Flying Leathernecks Aviation Museum & Historical Foundation

Flying Leatherneck Aviation Museum is temporarily closed while relocating from Marine Corps Air Station Miramar to its new home in the city of Irvine's Great Park, on the site of the former El Toro Marine Corps Air Station in Orange County.

Target date to open is August 2023. Call 858-693-1723 or visit www.flyingleathernecks.org

Golden Age Flight Museum, Tehachapi

Newly opened in 2022, Golden Age of Flight Museum is located at 102 Commercial Way, Hangar H, Tehachapi Municipal Airport. www.goldenageflightmuseum.org.

Joe Davies Heritage Airpark

2001 E. Ave. P, Plant 42
Palmdale, CA 93550
661-267-5611
<http://www.cityofpalmdale.org/airpark/>

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Edwards opening new museum to show ‘the right stuff’

by Larry Grooms
special to Aerotech News

Walls are ready to rise on a 21st century museum where “The Right Stuff” is fact, not fable — just outside the main gate to Edwards Air Force Base and NASA’s Armstrong Flight Research Center.

The non-profit 501(C)3 Flight Test Historical Foundation has expanded its mission beyond supporting the existing on-base museum at Edwards and the museum’s Blackbird Airpark at Air Force Plant 42 in Palmdale.

By mid-to-late 2023, the foundation plans to open the doors to a fully accessible, multipurpose aerospace museum, library, STEM education and industry conference center on the doorstep to the base where aviation and space barriers were broken.

The Foundation’s campaign to relocate exhibits from the on base 8,500-square-foot museum to the new 75,000-square-foot museum is proving to be transformational.

Foundation Board Chairman Art Thompson says objectives go far beyond adding more extensive displays of aircraft, artifacts, art and memorabilia.

The Society of Experimental Test Pilots, a partner with the foundation, will relocate archives, oral histories and artifacts to the museum.

And SETP donations are funding the Bob Hoover Library and portions of the SETP STEM classrooms.

Thompson explains that the free-way-accessible location outside base security barriers that was imposed after 9-11 and reinforced under COVID-19 restrictions, severely restricted public access to the place where many aviation milestones took place.

Events happened at Edwards like America’s first jet taking flight, the Bell X-1 test pilot Chuck Yeager proving there was no barrier to supersonic flight, test pilots in the X-15 flying to the edge of space, traveling at hypersonic speed, and wingless lifting bodies leading to NASA’s first flights and landings of the space shuttles.

Lisa Brown, FTHF director of education, said, “The entire collection consists of more than 86 aircraft, and arguably the most significant collection of research vehicles on the planet.”

Thompson said, “The Aerospace Valley remains a hub of mental flight



Air Force photograph

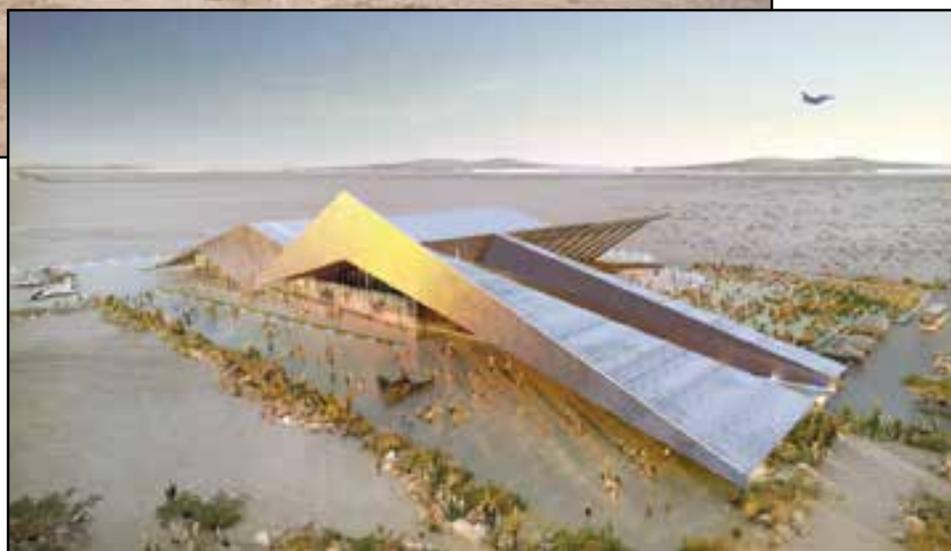
test to this day for all the same reasons. The skill and spirit of all those who participated in this incredible body of work shaped both the modern world and the American persona.

“Much of this historic work is not known to the world outside the AV, and much of what is known is surrounded by myth and legend because of the secret nature of the work. The new Flight Test Museum and STEM center will make that history accessible by literally bringing it outside the Edwards Gate.

“In the new location, the Flight Test Museum seeks to not only preserve and protect the history of flight test but also be the conduit to connect it to a new generation. The developments at Edwards have always reached for the future and the Museum seeks to do the same by inspiring the next generation with the new STEM center.”

In a prelude to the new museum’s opening, the Air Force Flight Test Museum at Edwards has reopened the 8,000-square-foot on base building to escorted family visits, field trips and home study groups.

Additionally, educational programs continue at Blackbird Airpark in cooperation with the City of Palmdale’s Joe Davies Heritage Airpark.



Courtesy photograph

Top: The Current Flight Test Museum on Edwards Air Force Base. **Above:** The proposed Flight Test Museum that will sit outside the Edwards AFB West Gate.

Brown said, “We are thrilled to bring back all of our field trips and the Junior Test Pilot in-person field trip.”

The museum’s Blackbird Airpark in Palmdale provides structured learning in the classroom via its summer program, Junior Test Pilot School; a class specifically designed by Brown, test pilots and engineers for children in grades 3-6. Junior

Test Pilots can earn patches and certificates through successful completion of interactive missions and have access to instructors that engage and empower the students.

A recent tour with parents presented the museum the occasion to introduce young visitors to aspects of flight testing at Edwards AFB, supplying historical context and permitting the children to immerse themselves in the tour.

George Welsh, Director for the Air Force Flight Test Museum at Edwards AFB, and a Life Patron of the Flight Test Historical Foundation, came to the Flight Test Museum in 2011 from the Flying Leatherneck Aviation Museum, MCAS Miramar, where he had worked as an aviation archivist and

historian since 2009. An Air Force veteran who served with both U.S. Air Forces Europe and Strategic Air Command. In 1981, he volunteered at the San Diego Air & Space Museum while attending college on the G.I. Bill. Invited to join the museum staff, he remained there for 15 years working in archival, curatorial, educational and aircraft restoration.

Sergio Cuevas, restoration curator for the museum, provided children the experience of seeing planes up close and personal, capturing tiny hearts and big imaginations with intricate details and demonstrations.

Having completed the \$2.1 million first phase of construction in May 2020, the wall-raising second phase of construction was delayed by COVID-19 restrictions, which created delays in fundraising until mid-2021, when the FTHF’s signature “Gathering of Eagles” event was resumed in-person.

Plans being finalized for the 2022 Gathering of Eagles in November are expected to be announced within weeks of this writing.

Thompson told Aerotech News in late May that Phase 2 installation of vertical wall structures are expected to be in place as soon as November.

He said the 60,000 square-foot Exhibition Hall will protect and preserve historical and extremely rare aircraft inside and away from the elements. The hall will house one of the most unique collections of research aircraft in the world and provide a place for the world to see it.

For more information, visit <https://flighttestmuseum.org/>, email info@flighttestmuseumfoundation.org or call 661-258-1658. For more information on education opportunities, email Lisa Brown, the director of education at lbrown@flighttestmuseum.org.

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March Field Air Museum

22550 Van Buren (I-215 at Van Buren Blvd.)
Riverside, CA 92518
951-902-5949
<http://www.marchfield.org>

Museum of Flying

3100 Airport Avenue
Santa Monica, CA 90405
310-398-2500
<http://www.museumofflying.com>

Palm Springs Air Museum

745 North Gene Autry Trail
Palm Springs, CA 92262
760-778-6262, Ext: 222
www.air-museum.org

Planes of Fame Air Museum

14998 Cal Aero Drive
Chino, CA 91710
909-597-3722
<http://www.planesoffame.org>

San Diego Air & Space Museum

2001 Pan American Plaza, Balboa Park
San Diego, CA 92101
619-234-8291
<http://www.sandiegoairandspace.org>
Gillespie Field Annex (Restoration)
335 Kenney St., El Cajon CA
619-258-1221

Western Museum of Flight

Torrance Airport, Louis Zamperini Field
3315 Airport Dr., Red Baron #3

Torrance, CA 90505
310-326-9544
<http://www.wmof.com/>

Wings of History Air Museum

12777 Murphy Ave.
San Martin, CA 95046
408-683-2290
<http://www.wingsofhistory.org/>

YANKS Air Museum

15121 Stearman Dr. Chino Airport
Chino, CA 91710
909-597-1735
<http://Arts.gov/Bluestarmuseum>
shop@yanksair.com

March Field Museum delivers 105 years of American air power

by Larry Grooms
special to Aerotech News

Poised alongside Interstate 215 in Southern California, between one of America's oldest military air bases and the Riverside National Cemetery, March Field Air Museum contains one of the largest and most diverse aircraft collections in California, representing all the armed services.

Established in 1917 by the fledgling Army Air Corps to train pilots for combat in the First World War, March Field, later a major U.S. Air Force base and now March Air Reserve Base, served in every major military conflict of the 20th century, including the Cold War.

All that history of the West Coast's oldest continuously operating military airbase is on display across 30 acres packed with multiple hangars and a flightline incorporating a majority of the 100 aircraft in the collection. Just inside the main hanger entry are some of the rare birds, including an open cockpit SR-71 Blackbird and a Bell P-59 Airacomet jet fighter.

Along the indoor pathway to the flightline, visitors will see many of the 30,000 flight artifacts and aircrew exhibits and see full scale replicas of World War I fighters and the Wright Brothers Kitty Hawk Flyer reproduction before exiting to the flightline.

One of the first eye-catchers is a Vietnam War Fire Base, complete with a rotary wing collection from the period. Another



stand-out that sets the March Field Museum apart is its collection of Cold War Soviet fighter jets, including the MIG-17, MIG-19, MIG-21 F-13 Fishbed C and MIG-23BN Flogger.

Just looking around in that same spot, a visitor will see the gleaming fuselages of World War II's fully restored heavy bombers, a B-17G Flying Fortress "Starduster" and its later sibling, the B-29A Super Fortress "Three Feathers." Not far away along



Photographs by Larry Grooms



the flightline are the rest of the museum's seven bombers: B-25 Mitchell, B-47E Stratojet, B-52D Strato Fortress, EB-51B Canberra and the FB-111 Aardvark.

Throughout its more than a century of service, the airbase called March served many masters and missions, from military flight school to flight testing, to primary base for tactical and air defense fighters, and Vietnam and Cold War era Strategic Air Command home to bombers and air tankers. With some overlap, the museum's collections are divided into 10 groups: Attack, Bombers, Cargo, Fighters, Soviet Aircraft, Other Fighters, Rotary Wing, Other, Trainers and Uncrewed, including the tallest item — a Minuteman II Intercontinental Ballistic Missile.

Greg Kuster, director of operations for the private, non-profit museum for the past dozen years, came aboard as volunteer in 2008. He says the museum operates with 13 paid staff members and about 120 volunteers. "The museum can't open without the volunteers," he said.

In the early stages of the pandemic, the March Field Air Museum was able to stay partially open with its large outdoors flightline exhibits, and since last March was fully reopened.

While some historic aircraft are displayed indoors, the majority are found outside in their "flightline." The admission fee covers on-foot entrance to the area, but for a small additional fee, guided tours of the flightline are offered several times each day aboard an electric tram, narrated by a trained docent. Tram tour seats

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San Diego Air & Space Museum

Day at the beach, walk in the park

by Larry Grooms
special to Aerotech News

Housed in an Art Deco style building on a Balboa Park bluff overlooking the city and miles from the airport, the San Diego Air & Space Museum has the distinction of being named by the Legislature as the "Official Air & Space Museum and Education Center of California."

But don't be put off by all that stuffy official formality. Black Ties and evening gowns are only occasionally required at small formal social evening events typically set in the lavishly appointed Pavilion of Flight under the wings of a restored Convair-built PBY-5A Catalina flying boat.

At all other times it's shorts and t-shirts. This is, after all, California's surf city, where the fleet's always in, along with wall-to-wall sessions in the Convention Center.

And for what might seem to some visitors to be a less robust airframe inventory, more muted engine roar and tidy fingernails, San Diego Air & Space Museum more than compensates with a formal and academic heritage that elevates its ranking among official big dogs of aerospace history keepers, including the Smithsonian and Seattle's Museum of Flight.

The more than 50 air and spacecraft on static display in Balboa Park and at the museum's Gillespie Field Annex in nearby El Cajon are selected to represent significant periods in the history of human flight, with particular emphasis on aeronautical and astronautical contributions from San Diego civilian and military organizations.

While the main museum's original basement workshop continues to restore, preserve and replicate the collection, the Gillespie Field Annex doubles as a restoration and fabrication shop and display area for air and spacecraft too large to exhibit in Balboa Park.

Although San Diego no longer restores rare birds to flight status, its mostly retired volunteer workforce continues the tradition of also building full scale replicas of highly prized aircraft in the category of extremely rare to extinct. In the museum lobby entrance visitors see replicas of a Wright Flyer, a Bell X-1 rocket research aircraft, and a replica of the Spirit of St.

Louis, accompanied by a full-scale mockup of Charles Lindberg's cockpit.

Ages of Discovery

The museum is divided into six galleries representing the quest to fly. The first two, Dawn of Flight and World War I, draw heavily upon the museum's extraordinary skills and talents in turning wood, wire and fabric into precise re-creations of the earliest airplanes.

The third Golden Age gallery, marks the restoration and preservation work in metal, but with replication required for such rare or endangered birds as the prized Boeing P-26 Peashooter, a 1930s Army Air Corps fighter that marked a quantum leap in aviation design, construction, materials, powerplants, and technologies in advance of the fourth gallery:

Second World War— San Diego was already building warplanes before the first bombs fell on Pearl Harbor, and by VJ Day in 1945 was the birthplace of fighters, bombers, trainers, transports and seaplanes. The gallery today is populated by a large delegation of hometown warplanes, plus an international contingent of World War II warbirds in once politically incorrect warpaint of Nazi Germany, the Japanese Empire and Stalin's Communist Russia. But it's all about the airplanes. There is no political science wing.

The easily walked tour ends with The Jet Age and Space Exploration galleries and the gift shop.

But for art lovers, and especially for lovers of aerospace art history, the International Aerospace Hall of Fame (IAHF), originally housed and now fully merged with the San Diego Air & Space Museum since 1993, has created a multi-stage art gallery that wends its way throughout the rooms.

Visitor appeal and the academic reputation of the museum were enhanced in 1964 when the International Aerospace Hall of Fame was established as



Photograph by Larry Grooms

an independent group housed in the museum to honor aviation and aerospace pioneers. In 1993, the IHOF and the museum organizations merged.

Over the years, the International Aerospace Hall of Fame held annual induction celebrations honoring more than 225 individuals, companies and other groups and organizations by. In multiple gallery panels strung through the exhibit halls are commemorative paintings depicting the honorees for every year, accompanied by a panel providing the story behind the recognition.

Many of those portraits show the likenesses of Aerospace Valley legends including the Skunk Works leaders; Scaled Composites design genius Burt Rutan, Mach Buster Gen. Chuck Yeager, and Voyager crew members Dick Rutan and Jeana Yeager, and the Red Bull Stratos leap from space performed by Austrian thrill master

Felix Baumgartner and designed and managed by Lancaster-based Sage/Cheshire Aerospace Co. mastermind Art Thompson.

The museum library collection and historical library is accessible by appointment.

Parking is ample and free, and the aerospace museum is open seven days a week from 10 a.m. to 4:30 p.m. Although the basic admission price for

people 12 and older is fixed at \$23 a head, among the highest for Southern California aero museums, there are lower fees for senior citizens, veterans and active duty military as well as people who become annual members of the museum.

For more information, including databases for most exhibits, archives and volunteer opportunities, visit website at www.sandiegoairandspace.org.



Courtesy photograph



Courtesy photograph

San Diego's USS *Midway* is a 'Top Gun'

by **Larry Grooms**
special to Aerotech News

San Diego is one of a select few cities where aerospace museum visitors have the chance to go “feet dry” up in Balboa Park, or “feet wet” aboard the legendary USS *Midway*.

Conveniently moored alongside the Navy Pier at the foot of Harbor Drive, the *Midway* inconveniently lacks free parking. And with paid parking that fills up fast, the best advice is use ground transportation, and check the website at www.midway.org to make reservations.

With a bridge tower, flight deck, hangar deck and the below deck “City at

Sea,” a visitor needs good closed-toe footwear and a minimum half-day to take it in. Tour options are great, from self-guided audio tours to escorted group tours, all with docents who are superbly informed and friendly.

Because *Midway* is the longest serving U.S. Navy aircraft carrier of the 20th century, having been commissioned in 1945 and retired in 1992, it saw wartime action in Korea and Southeast Asia, along with Cold War defense action and humanitarian missions worldwide.

Midway opened as a museum on June 7, 2004. By 2012 she attracted more than a million visitors a year, and by 2015 was declared to be the nation's



and later jets, and helicopters from the Korean War onward through the War in Vietnam and contemporary tactical aircraft.

Carefully restored, each one represents a page in long saga of the USS *Midway*. One chapter in the history is the June 1942 Battle of Midway that inspired a nation, created a legend and led to the christening name for an iconic aircraft carrier named for the battle.

A relatively new and defining exhibit in the 90-seat Battle of Midway Theater & Experience includes a riveting multimedia movie, “Voices of Midway” as well as iconic



Photograph by Larry Grooms

most popular naval warship museum.

One reason for USS *Midway*'s popularity could be its appeal to people with sea salt in their DNA, people whose eyes are on the skies, and the fortunate group sharing both passionate pursuits.

Some 50,000 students a year visit on field trips, with about 5,000 staying overnight. A tour narrated by former *Midway* sailors, takes visitors to more than 60 locations on the ship, including sleeping quarters, the engine room, gal-

ley, bridge, brig, foc's'le, pilots' ready rooms, officers' quarters, primary flight control, and officers country. Other features include climbing-aboard aircraft and cockpits, videos, flight simulators, and a narrated audio tour for youngsters.

The USS *Midway*'s hangar and flight decks have on display more than 30 restored aircraft of the types she launched over more than four decades, including piston-engine types from World War II and the Korean War, along with early

World War II-era aircraft; the SBD Dauntless, F4F Wildcat, and the newest and rarest addition aboard, the TBD Devastator torpedo bomber.

It is reputed to be the only known TBD Devastator representation anywhere else in the world.

For more information, visit www.midway.org. The USS *Midway* Museum is open 10 a.m.-5 p.m., seven days a week.

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A trip to the famous Planes Of Fame Air Museum

by Bob Alvis

special to Aerotech News

The Planes of Fame Air Museum in Chino, Calif., has a remarkable record over the years as one of the most popular destinations for fans of all the things that fly.

Starting many years ago under the guidance of Ed Maloney it grew from a family business to what it is today, and is regarded as one of the best in the nation.

Many museums are more community-based operations that serve in that capacity very well and can share some very nice historical aircraft and history but when the static comes to life and the smoke rolls from the exhaust pipes that tells you that the Planes Of Fame is more than just a static museum, this is a museum where the history takes to the air!

What also makes this museum special is the wide variety of aircraft making up its inventory, and how many of its aircraft on display you can actually touch the plane and the aviation history that took place ever since man has learned to fly!

Here are just a few examples of planes on display that are truly one of a kind that can make your visit a very special day.



Courtesy photograph

The Hanriot HD.1

The museum's Hanriot HD.1 is a World War I combat veteran, manufactured in Boulogne-Billancourt, France and delivered July 1918. It was originally built as an HD.2 seaplane and assigned to the U.S. Navy operating out of NAS-Dunkerque, France. There it conducted coastal patrols and U-boat searches. In 1919, it was among 10 HD.2s sent to the Naval Aviation Factory in Philadelphia. These aircraft were converted into HD.1 land fighters and assigned to battleships in the U.S. fleet. In 1923, World War I French Ace Charles Nungesser restored and flew this aircraft for his U.S. exhibition team. It still bears his insignia. Later, Jim Granger of Santa Monica obtained it and put it on public display. He also flew it in the classic silent films Wings (1927), Hell's Angels (1929), and The Sky Raider (1931). The Museum acquired the aircraft in 1951.

The museum's P-38J, built in Burbank, Calif., and delivered into service in May 1944, has the distinction of being the 5,018th P-38 built — halfway to the total number of "Lightnings" produced. It was assigned to the 483rd Air Base Squadron in Santa Maria, Calif. -- a Replacement Training Unit providing combat crew training for P-38s during World War II. In September 1945, the aircraft transferred to the Hancock College of Aeronautics where it was used to instruct maintenance personnel. The museum acquired the aircraft in 1959. In 1988, it was restored to flight thanks to a generous donation from Bob and Josie Pond.



Courtesy photograph

The museum's P-38J

The museum's P-38 was used in the filming of Iron Eagle III.



Courtesy photograph

The RF-84K Thunderflash

The museum's RF-84K Thunderflash was one of 25 RF-84Ks modified for aerial hook-up to B-36 bombers as part of the Fighter Conveyor (FICON) program. This black and white photo is of the museum's RF-84K when it was assigned to the 407th Strategic Fighter Wing in 1955.



Courtesy photograph

The R-4 Firecracker

The museum's R-4 Firecracker is the original Schoenfeldt Firecracker, flown by Tony LeVier who was an American air racer and test pilot for the Lockheed Corporation, involved in testing the P-38 Lightning and the P-80 Shooting Star.

The museum's FR-1 was manufactured in San Diego, Calif., in March 1945. Of the 66 production FR-1 "Fireball" aircraft built, the museum's aircraft (11th FR-1 built) is the only surviving example. In 1945, it was one of six FR-1 aircraft sent to the Ames Research Center of the National Advisory Committee for Aeronautics. Tests on those aircraft included perfecting wing



Courtesy photograph

The FR-1 Fireball

dihedral and aileron shape, as well as exploring jet engine tilt options -- all designed to help Ryan improve the FR-1. In 1947, after the U.S. Navy took the FR-1s out of service, this aircraft was donated to Cal Poly San Luis Obispo for instructional purposes. It was acquired by the Museum in 1967. This black and white USN photograph of the Museum's FR-1 (BuNo 39657) was taken at Naval Air Station Anacostia, Washington, D.C., on Sept. 26, 1945.

Manufactured in El Segundo, Calif., and delivered on Nov. 10, 1947, the museum's D-558-II (NACA 143) is the first of



Courtesy photograph

The D-558-II

the three Skyrockets built. From February 1948 until August 1951, it completed 122 contractor-directed flights. These were ground-takeoffs made by Douglas Aircraft test pilots to determine the transonic and supersonic capabilities of the aircraft. It was eventually returned to Douglas (El Segundo) for conversion to rocket-only air launch. On Sept. 17, 1956, the aircraft made its final (and only NACA) flight, flown by test pilot John McKay, when "Fertile Myrtle," the Navy P2B-1S, dropped it at 35,000 feet. After program cancellation in December, the Navy used the aircraft for several years as a traveling "static recruiting billboard." It was acquired by the museum in 1966. In this black and white photo, the Museum's D-558-II is at the NACA High-Speed Flight Station hangar (at Edwards Air Force Base) in 1956 jettisoning its liquid oxygen. Parked in the background is the Navy version of the B-29 Superfortress, the P2B-1S "Fertile Myrtle", which served as the launch aircraft for the Museum's D-558-II.

The museum's P-40 is a World War II Combat Veteran, built in Buffalo, N.Y., delivered on June 22, 1943, and served with the Royal Canadian Air Force. On March 10, 1945, while being flown by Pilot Officer J. O. Patten, this Kittyhawk Mk.

See PLANES OF FAME, Page 9

MARCH, from 4



are limited, so be sure to purchase yours early in the day. For more information, visit www.marchfield.org.

Now open year-round on Tuesday through Sunday from 9 a.m. to 5 p.m. the March Field Air Museum offers educational programs for youth, group tours and an aerospace research library by appointment.

Jeff Houlihan is director of the museum's onsite Collection, Curation and Restorations Department, which also maintains the static displays out on the flightline. In the low humidity and temperate climate of Riverside, the biggest maintenance challenge is what the workers jokingly spell. B.I.R.D's.

Kuster points out that March Field is also a work in progress, with new exhibits and programs opening every year. And the museum is the home of more than 40 major public and private events a year, including an annual Wing-Ding celebration each May. Currently in the works is placement of an F-16 fighter, a MiG-23 and an Iraq/Afghanistan Wars Forward Operating Base scenario.

Keep 'em flyin' is top mission at CAF Camarillo

by Larry Grooms
special to Aerotech News

Museum might not be the best word to convey what visitors experience at the Commemorative Air Force Southern California Wing's headquarters on Camarillo Municipal Airport.

Imagine a natural history museum where dinosaurs roar, snarl and run around the building. Now envision reaching out to touch the airframe, smell the exhaust as the big rotary engines begin to turn propeller blades, to hear the roar at takeoff and see in live action a slice of history.

That's just part of the CAF Camarillo experience.

Focusing on the role of airpower

in the worldwide struggle for freedom between 1939 and 1945, the men and women of the non-profit (501)3c Southern California Wing, CAF are primarily volunteers serving in many roles, including technically demanding skills in all aspects of aircraft restoration and replication.

All or nearly all the airplanes displayed and flown at CAF's SoCal Wing headquarters are classified as being airworthy after lengthy, exhaustive and expensive restoration and replication. Beginning in 1981, the Camarillo Wing has more than 350 members.

Unlike more typical static and artistically lighted aircraft displays in many aerospace museums, the warbirds of Camarillo still fly after



Photograph by Larry Grooms

A Mitsubishi A6M Zero undergoes maintenance at CAF Camarillo.

a long and painstaking rebirth in the shops.

Highly valued visitor attractions held periodically throughout the year are Living History Event and Hangar Tours.

Coming up on Aug. 6, the ramps, runways and the sky overhead will feature flight and exhibitions and performances by the Museum's entire "Ghost Squadron."

This next attraction in the Living History Day "From the Ground UP" series is being held to commemorate the 77th Anniversary of Victory Over Japan (VOJ) Day, marking the end of World War II.

One of the featured aircraft in the sky over Camarillo that day will be the museum's rare Marine Corps PBJ-1C Mitchell medium bomber, a modified Marine Corps version of the North American B-25 medium bomber used by the Army Air Corps in Gen. Jimmy Doolittle's famous Tokyo Raid in 1942.

A previous "From the Ground UP" 11 a.m. to 1 p.m. Saturday event featured Restoration of a World War II F8F Grumman Bearcat built for the U.S. Navy to exert total air supremacy in the Pacific. It was an airplane built around an engine and guns to out-perform and destroy its competitors.

Also featured in the series on June 4 was a presentation by the restoration team on "The Short and Violent Life of the Grumman F6F Hellcat" that, "swept into the Pacific Theater like a dark blue tsunami," leaving an unmatched record of air combat victories.

The Museum is currently open to the public on Friday and Saturday from 10 a.m. to 4 p.m., and Sunday from noon to 4 p.m., and closed Monday through Thursday. Suggested donations are: Adults — \$10; Students (10-18) — \$5; Children (6-10) — \$3; Children under 6 and active duty Military — No Charge. Volun-

teers are at the hangars working on aircraft on Tuesdays, Thursdays, and Saturdays from 10 a.m. to 4 p.m.

Since it is a museum with aircraft and pilots certified to fly with paying passengers, Camarillo offers once-in-a-lifetime flight experiences for a fee. Currently available for rides are an open-cockpit PT-1 trainer, a Navy SNJ trainer, an Air Corps T-6 Texan and a late 1930s Ercoup. For information email rides@cafsocal.com or call 805-482-0064.

The volunteer docents are knowledgeable and eager to give tours to groups or individuals. Reservations are required for school groups and classes, and other tour groups of ten or more. Call 805-482-0064 to make a reservation.

Along with a growing collection of World War II aircraft, aviation artifacts and other displays, the museum has an extensive aviation library and gift shop.



Courtesy photograph

Aircraft undergo maintenance in Camarillo.

Photograph by Larry Grooms

The Hollywood replica of a World War II Japanese B5N2 "Kate" torpedo bomber is still flying at Camarillo.

Courtesy photograph

Aircraft undergo maintenance in Camarillo.

Palm Springs Air Museum

The Palm Springs Air Museum is located at 745 North Gene Autry Trail in Palm Springs, Calif.

Construction of the museum started in February 1996 and the museum opened to the public on Nov. 11, 1996, with two hangars. Shortly after opening, plans were made to add a third hangar to the museum to house a B-17 bomber. In 1999, the hangar was completed and opened to the public. It would be another 18 years before another hangar would be added. The Maj. Gen. Kenneth P. Miles hangar opened in 2017, providing an enclosed hangar to the numerous Korea War/Vietnam War aircraft in the museum's collection. Five years after the opening of the Korea/Vietnam hangar, the F-117 Pavilion was officially opened in April 2022 housing the F-117A Nighthawk.

The museum is open 10 a.m.-5 p.m., Monday-Sunday, but closed on Thanksgiving, Christmas and Gala Date.

For more information and ticket prices, visit www.palmspringsairmuseum.org or call 760-778-6262.

There are a wide variety of aircraft and helicopters on display dating from World War II to the present day.



Courtesy photographs

PLANES OF FAME, from 7



Courtesy photograph

The P-40

IV destroyed a Japanese "Fu-Go" fire-balloon bomb at 13,500 feet over Salt Spring Island, British Columbia. Post-war, the aircraft sold several times to private owners. In Colorado in 1958, after seeding clouds with silver iodide, it experienced a belly landing. It was acquired by the museum in 1960 and restored in 1980. It flies regularly and has appeared in the films "Pearl Harbor" and "Valkyrie." It is painted in the markings of the 325th Fighter Group.

The list goes on and on as these are just a few of the historic airframes that call the museum home. Many thanks to my friends at the museum that helped supply this information of the collection they help oversee and maintain. One thing that makes a trip to the museum an absolute joy is the wealth of information that is presented every day by the men and women that not only

know the history, but, also help to keep them flyin'!

Located at the historic Cal Aero Field in Chino, Calif., Planes of Fame is a must stop for all aviation fans. Plan on spending the day as you will have a lot to see in those hangars. You may even get the chance to see a warbird or two take to the air on any given day! A full day of discoveries are waiting and if that's not enough make sure to schedule in some time for some breakfast or lunch at the world-famous Flo's Cafe on the field! Now that's a day worth spending at the Planes of fame in Chino! I will see you there!

Planes of Fame is at 14998 Cal Aero Drive in Chino. The museum is open 10 a.m.-4 p.m., Wednesday-Sunday. For more information, visit www.planesoffame.org, or call 909-597-3722.

Behind the scenes of warbird reincarnation

by **Larry Grooms**
special to Aerotech News

The best ten bucks I donated all month was for admission to a Living History Event and hangar tour of the Commemorative Air Force Southern California Wing Museum at Camarillo Airport.

The 11 a.m. to 1 p.m. Living History program brought together leaders of the museum team engaged in "From the Ground Up Restoration" of a World War II F8F Grumman Bearcat built for the U.S. Navy to exert total air supremacy in the Pacific. It was a airplane built around an engine and guns to out-perform and destroy its competitors.

Framed by a section of the bare metal fuselage, a four-bladed propeller and other pieces and parts, the presenters revealed the big picture of the project planning, budgeting, volunteer staffing, and material acquisition. Followed by the project details from disassembly through reassembly, Federal Aviation Authority inspections, flight testing and the final paint job.

On Aug. 6, in recognition of the 77th Anniversary of VJ Day, the CAF SoCal Wing will present "A Living History Event," featuring the entire airworthy Ghost Squadron through flight and exhibition.

Featured in the sky over Camarillo on that day will be the museum's rare Marine Corps PBJ-1C Mitchell bomber, which, along with an open-cockpit PT-1 trainer, an SNJ trainer, and an Ercoupe, welcomes paying guests for once-in-a-lifetime rides.

The CAF museum in Camarillo is located at 455 Aviation Drive in Camarillo, and is open 10 a.m.-4 p.m., Fridays and Saturdays, and noon-4 p.m. on Sundays. For more information, visit www.cafsocal.com, or call 850-482-0064.

Photograph by Larry Grooms

Caught with its nose down at a Living History event is this Bearcat fighter from World War II.





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Chino Airport's YANKS Museum is a rare treasure

by Larry Grooms
special to Aerotech News

CHINO, Calif.—YANKS is a museum named for its rare, historically significant and most complete collection of restored All-American World War II military aircraft, including fighters, gliders, bombers, amphibians and carrier-launched dive and torpedo bombers.

But the name YANKS only begins to convey the range of collections, including last of a kind aircraft being restored, educational resources and archives and artifacts made available to those who come from around the world to explore this semi-rural San Bernardino County airport.

Add to those distinctions the fact that many of the museum's more than 200 airframes are lavishly, artfully and categorically deployed in climate-controlled settings under a roof measuring 176,000 square-foot. Interconnected under the rooflines are:

The Legends Hangar, housing galleries of Made in USA aircraft from the Golden Age of Aviation, which began with the Wright Brothers first powered flight in 1903 and continued through the First World War, the 1930s, America's entry into World War II and the postwar boom in private civil aviation.

Upon entering the Legends Hangar, the first airplane a visitor encounters is a hand-built wood, wire and canvas replica of the Wright Flyer. An anomaly, the Flyer is the only aircraft in the YANKS stable not to have been preserved or restored from an original. (The original article resides in the Smithsonian Air & Space Museum.)

Down the corridor and past the gift shop, amenities and a theater, visitors enter the largest single indoor pavilion:

The **Starfighter Hangar** is a dazzling display of all-American Air Power through the 1980s. Front and center at the glass entry doors is a Navy F/A-18 Hornet in its official Blue Angels livery. It's the only aircraft at YANKS to be on-loan from the military, and it remains a stellar attraction, looking fast just sitting there.

Beyond the Hornet's tail, the view to the back wall is of twin rows of American-made planes sitting on landing gear or suspended as if airborne. Korean War MiG-killers like the F-80,

and F-86 mingle with such rare prototypes as the Navy's first jet fighter, a North American FJ-1 Fury, constructed with straight wings and other components handed down from the venerable F-51 Mustang. The F-11 was the forerunner of future carrier capable and streamlined Fury series fighters with improved performance, greater turbine thrust, swept wings and deadlier weaponry.

Anchoring a corner of the Starfighter Hangar, at about the point a small child might need some play time, the group enters a kid-sized aviation playground, with a merry-go-round, mini-copters and fixed-wing airplanes that fly up and down and round-and-round at non-threatening speeds. There's a modest extra charge for the rides.

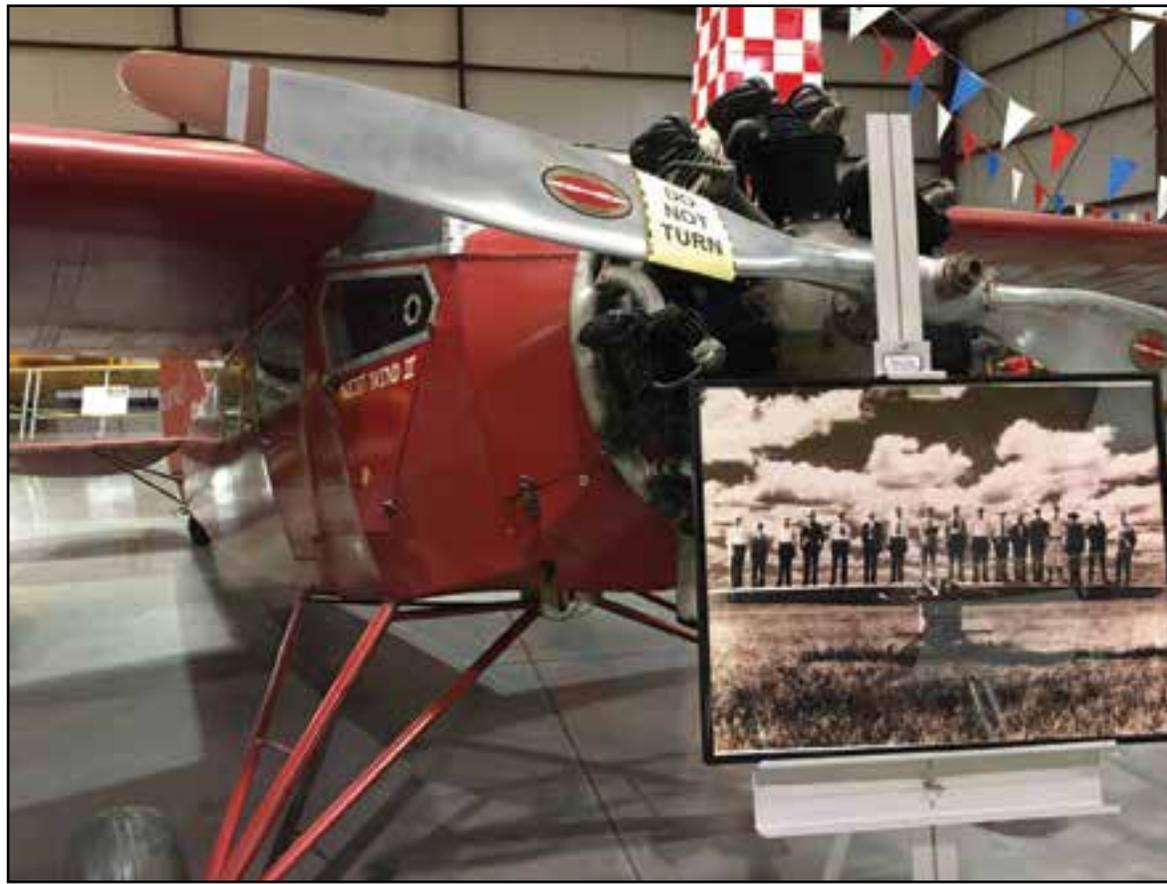
Leaving the jet-propelled half of Starfighter and kids corner, visitors are surrounded by a mix of Army, Navy, Marine Corps, Air Force and Coast-guard fixed and rotary wing aircraft, including helicopters that played increasingly major roles from World War II through Korea, Vietnam and ever since.

A story for every plane

Docents tell museum guests that one of the things elevating the YANKS experience is its painstakingly detailed stories that often go far beyond the technology, machinery, performance records and shiny flying objects, reaching into the human heart of aviation history.

There's a plane for every story, and a story for every plane. In the Starfighter Hangar sits a distinctly non-American-built World War II Japanese kamikaze aircraft. The nose of the rocket-propelled Ohka (Cherry Blossom) was a piloted 2,646-pound bomb designed for a one-way trip. Only about 60 of the craft saw combat, and that even this one survived is a story. But the better story is about how it came to be the exception to proving the YANKS rule about keeping the collection All-American. As a condition in the purchase of a P-47 Thunderbolt, the museum reluctantly agreed to buy the Ohka Model 11, explaining that Yanks is an 'American only' museum.

As YANKS later concluded, the flying bomb Made in Japan became an American military aircraft when U.S.



Photograph by Larry Grooms

Firmly standing by the strength of the new Cessna cantilevered wing design at YANKS

troops captured it intact in a cave on Okinawa.

Because of the museum's digital access to highly detailed history for its aircraft, there are heart-warming occasions when descendants of American aviators can reconnect with their family history and heritage. Such was the case when a man discovered that the Curtiss-Wright C-46F his late father flew over the "The Hump" from India to China during World War II was awaiting restoration at YANKS. Curator James Noriega recalls that the man flew to California and was brought to joyful tears by sitting in the co-pilot seat his dad occupied.

The mission

Business owner Charles Nichols started YANKS in 1972-73, beginning with acquisition of a 1930s classic Beech Staggerwing.

Over the following four decades, the search for historic American aircraft to

be restored took the founders around the world, retrieving airplanes from lake bottoms, island jungles in the South Pacific, flower beds, attics, barns, garages and wrecking yards across the nation.

Illustrating the level of difficulty in restoring a long neglected and exposed aircraft to its pristine original appearance, the background of the Douglas SBD-4 dive bomber includes the battered and broken wing section recovered from a sistership on Guadalcanal.

Nichols makes it clear in the museum's publications that the guiding principles of YANKS call for restoration to flight worthiness of every aircraft, with the understanding that some are so rare that they are the only surviving models and may never again be flown.

Restoration Hangar

Around from the beginning years, the Restoration Hangar is at the heart of the museum's growth and success. And its design, management and operations make its productivity a model on par with the best in the business.

Unlike some restoration shops, YANKS allows supervised public access. And the Restoration Hangar skilled professionals could write a book on management science in a toolbox environment.

While aerospace museum shops weighted heavily toward a traditional volunteer workforce may experience difficulty with recruitment and retention, the YANKS Restoration operation is finding success with a higher ratio of employed to volunteer staffing, showing up primarily in the skilled technical operations.

Depending on the condition of acquired aircraft and availability of parts and materials, normal aircraft restoration time frames can range from years to decades. But a combination of creative changes at YANKS allows its 15 res-

toration crew members to restore more wood or metal aircraft in less time, working multiple projects concurrently.

With about half of the museum's aircraft sitting outside awaiting their turn for restoration, managers can more accurately schedule workflow from The Boneyard (maybe more accurately called the Parts Department) to Restoration.

In addition to its galleries highlighting U.S. military aviation from all wars, including the "Cold" one. YANKS has one of the world's largest civilian private aircraft collections, seen in the Legends Hangar.

YANKS believes public support is essential to continue the collection, restoration, and preservation of historical American aircraft, and its mission is to educate people by preserving the aircraft and increasing the body of knowledge.

The YANKS Air Museum is a non-profit 501 (c)(3) organization. The Yanks Air Museum Foundation is a non-profit 509a(1) educational foundation formed as a public charity. The primary purpose of the Foundation is to act as a financial support system for the museum. The Board of Directors work together to ensure the success and stability of Yanks Air Museum; one of the world's premier museums of antique American aircraft and artifacts.

As is the case for many aerospace museums in the wake of temporary closures due to COVID-19 restrictions, websites are still being updated and may not contain current information. Such is the case at YANKS. It's a good idea to call or email ahead of a visit to confirm information. The museum entrance is on Stearman Drive at Chino Municipal Airport. For more information, call 909-597-1735 or email info@yanksair.com.



Photograph by Larry Grooms

James Noriega, curator, shares stories of this rare Lockheed P038 photo reconnaissance plane. Like the SR-71, it was unarmed but could not be caught.



Photograph by Larry Grooms

Still airworthy: A restored Douglas SBD-4 Navy dive bomber that rained destruction on the Japanese Fleet in the Pacific.

Nevada home to numerous aerospace, military museums

Hawthorne Ordnance Museum

Hawthorne Ordnance Museum commemorates the thousands of military, civil service and civilians who have made significant, and even the ultimate contribution in defending the freedom of this great nation.

On Sept. 15, 1930 the Secretary of the Navy commissioned the U.S. Navy Ammunition Depot at Hawthorne, Nev. This did not happen by accident, but an accident caused it to happen. Four years earlier in July 1926, during the same week that a fire destroyed the Hawthorne business district, the Navy's principal ammunition depot in Lake Denmark, N.J., blew up, destroying the town and killing more than 50 people and injuring hundreds more. The Hawthorne Ordnance Museum commemorates the history of the ammunition Depot and its mission in defending the freedom of our country.

The museum is home to two main aircraft: the Gyrodyne QH-50D and the Piasecki HUP-1 Retriever.

Admission is free, and the museum is open 10 a.m.-4 p.m., Monday-Friday; and 10 a.m.-2 p.m., Saturdays.

The museum is located at 925 East Street, Hawthorne, NV. For more information, visit www.hawthorneordnancemuseum.com or call 775-945-5400.

American Museum of Aviation (Las Vegas)

Although the museum is yet to be completed, it will become home to approximately 10 different aircraft, including the Convair 240, Piper PA-24-250 Comanche, Boeing 727-232, and the Douglas DC-7B. Their goals include everything from building a facility to commemorate propeller-driven and turbine-powered military and commercial classics to housing a variety of aircraft and cockpit displays that can be enjoyed by the public.

They also intend to present a variety of educational opportunities for those who wish to learn more about aviation in general and the Air Force and Navy in particular. Several Navy and Air Force planes will also be included in the museum.

Visit www.americanmuseumofaviation.org for more information and to keep up with the museum's progress.

Cannon Aviation Museum (Las Vegas)

The Cannon Aviation Museum is located at the



Courtesy photograph

The Air Land and Space Museum at 2735 South Industrial Road in Las Vegas.

Harry Reid International Airport in Las Vegas and is open 24/7. Admission is free.

The museum's exhibits are spread throughout the airports in the Clark County airport system, with the main exhibit located on Level 2 above Baggage Claim in Terminal 1. Covering approximately 3,000 square feet, exhibits detail the rich aviation history of Southern Nevada. Other exhibits are located in the gate areas, along the moving walkway to the C gates, in the walkway between the B and C Concourses, and at Henderson Executive and North Las Vegas airports.

Only one aircraft is shown in the museum, a 1958 Cessna 172 which set the World Endurance Aloft flying record in 1959. Flying for 64 days, 22 hours, 19 minutes and 5 seconds without touching ground, Robert Timm and John Cook set a record which stands to this day. The flight was sponsored by the Hacienda Hotel and Casino as a fundraiser for the Damon Runyon Cancer Fund. The actual aircraft hangs over the north end of Baggage Claim in Terminal 1.

The Howard W. Cannon Aviation Museum is administered through the Clark County Museum system. Except for those exhibits which are in the gate areas at the airport, all exhibits can be viewed by any visitor to the airport.

For more information, call 702-455-7955, or visit

www.harryreidairport.com/museum.

National Atomic Testing Museum

The mission of the Nevada Test Site Historical Foundation is to preserve and foster public accessibility to the history associated with the Nevada Test Site and the nation's nuclear weapons program. The NTS Historical Foundation promotes and supports cultural, educational, and scientific programming to encourage the development and public exchange of views regarding the Nevada Test Site and its impact on the nation. The major program of the Nevada Test Site Historical Foundation is the National Atomic Testing Museum.

Designated as a private National Museum in December 2012, the National Atomic Testing Museum is charged by Congress to preserve the history of and educate the public about the nation's nuclear testing program. The Museum also upholds the mission of the Nevada Test Site Historical Foundation.

The museum covers the period in 1951 when testing first started to the present day, and its exhibits include American nuclear history, radio badges, Geiger counters, pop culture memorabilia, testing equipment, videos, interactive displays regarding radiation, and even a Ground Zero Theater that simulates the observance of an atmospheric nuclear test.

There is a large collection of artifacts on display every day of the year, and they are continuously updating and improving the exhibits so that you don't see the same thing every time you visit them.

The museum is located at 755 E. Flamingo Road, Las Vegas, and is open 9:30 a.m.-3 p.m., Thursday-Tuesday. For more information, visit www.nationalatomictestingmuseum.org or call 702-409-7366.

Nellis Air Force Base Freedom Park

For people with access to Nellis Air Force Base, there is Freedom Park.

Some of the many planes they have on display

include the General Dynamics F-111A Aardvark, North American F-86E Sabre, Fairchild A-10A Warthog, and the Republic F-105G Thunderchief, among others.

For more information, visit www.nellis.af.mil.

Thunderbirds Museum

Another great museum for those with access to Nellis Air Force Base is the Thunderbirds Museum. For more than 60 years, the Thunderbirds have been thrilling crowds at air shows around the world.

Tracing the history of the U.S. Air Force Thunderbirds Aerial Demonstration Team, the museum has a treasure trove of memorabilia and artifacts including an F-16 Fighting Falcon.

The museum is located on Tyndall Avenue, Nellis AFB. Call 702-652-7200 for opening hours and more information, or visit <https://www.airforce.com/thunderbirds/museum>.

The museum may be subject to closure without notice due to the high operations tempo of the squadron.

Naval Air Station Fallon Air Park (NAS Fallon)

If you have access to the air station, you can



Air Force photograph

The Thunderbirds Museum at Nellis Air Force Base, Nev.

easily visit this museum. It is home to roughly two dozen airplanes, and the collection includes the Bell UH-1B Huey, Lockheed S-3B Viking, Douglas A-4E Skyhawk, Mikoyan Gurevich MiG-21bis, and the Vought A-7B Corsair II, as well as the Northrop F-5E Tiger, PZL Mielek Lim-5, McDonnell Douglas F/A-18A Hornet, and the Grumman E-2C Hawkeye.

For more information, contact NAS Fallon at 775-426-2880.

Air Land and Space Museum

The Air Land and Space Museum is located at 2735 South Industrial Road in Las Vegas, and is open 9 a.m.-6 p.m., Sunday-Thursday, and 9 a.m.-7 p.m., Friday and Saturday.

The Air Land and Sea Museum is a non-profit organization, dedicated to preserving military history and providing education to the public of the many sacrifices made to protect our freedom. The museum is committed, through its collections and outreach, to being a vital partner in the cultural life of the Las Vegas and Nevada communities and strives to achieve this goal through the highest professional standards in keeping with military traditions.

For more information, call 725-848-6385 or visit www.alsmuseum.org.



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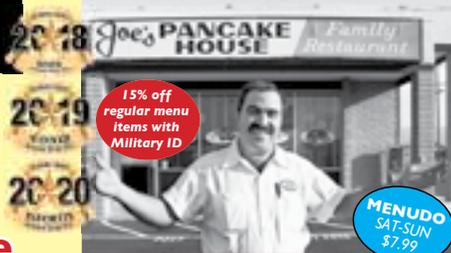
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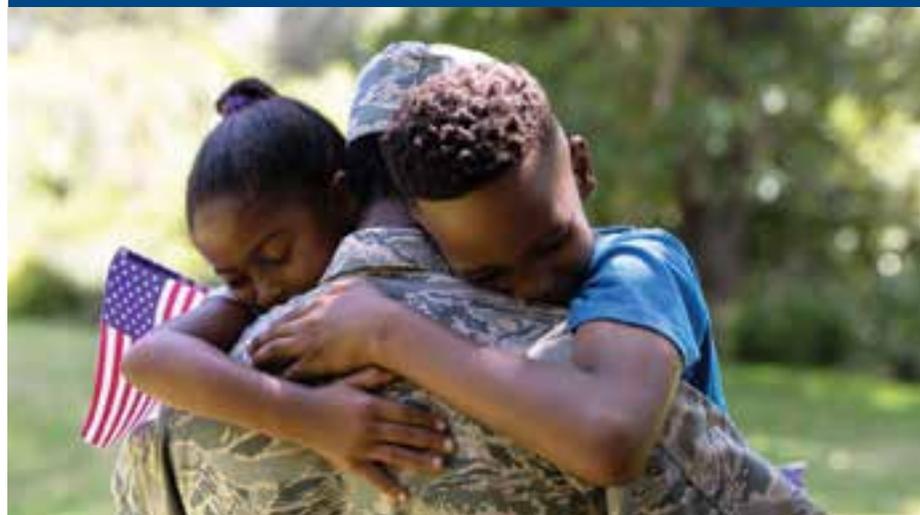
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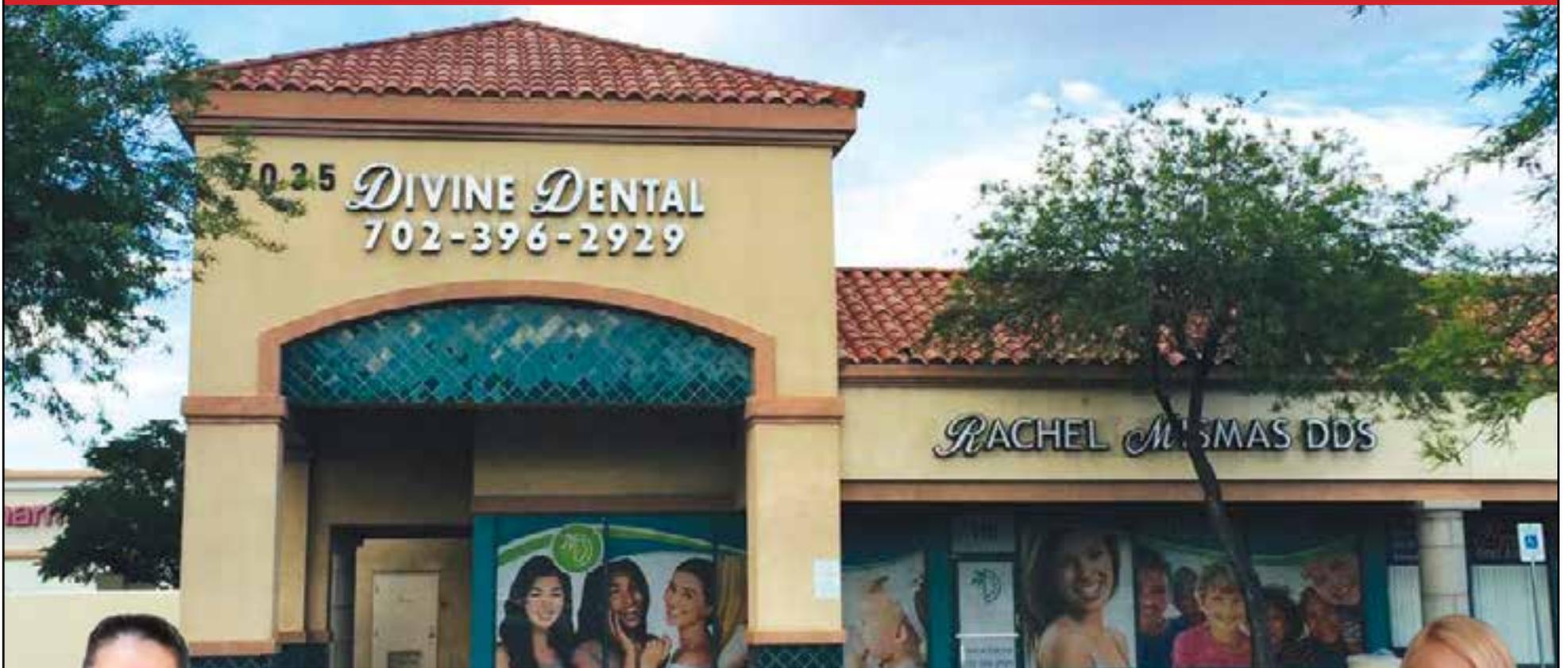


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Pima shines as one of country's largest aviation museums

by Jenna Bigham
Aerotech News

From the original idea in the 1960s to today's displays, the Pima Air and Space Museum has been a staple of the community in Tucson, Ariz., for roughly half a century.

Though not an official museum at the time, the concept took flight when World War II aircraft and 1950s era aircraft were making their way to the Military Aircraft and Storage Disposition Center at Davis-Monthan Air Force Base, Ariz., in the 1960s. Base leadership saw an opportunity to display the aircraft along the fence line for all to see, and the interest only grew from there.

By the mid-1970s, with the help of aviation enthusiasts and support from local to national leaders, money was raised, land was purchased, and the first major aircraft acquisition had taken place and still sits on display today at the museum, located just south of Davis-Monthan Air Force Base.

Visitors today can learn all about the museum's history and that of the more than 400 aircraft and 125,000 artifacts spread across 80 acres and 250,000 square feet of hangar space. A couple personal favorites to check out are the unique Aero Spacelines 377G "Super Guppy", or the Consolidated PB7Y Catalina – the most successful flying-boat operated by the U.S. Navy during World War II.

A ticket purchase, only available on site the day of, will provide everyone, both young and old,



Courtesy photographs

with an opportunity for a fun morning or afternoon visiting the main hangar — which is three hangars combined into one, 3 separate hangars dedicated to World War II history, The Dorothy Finley Aerospace Gallery, The Arizona Aviation Hall of Fame, and The 390th Memorial Museum — which is a separate museum located on the same grounds.

With plenty of parking, a restaurant inside for a quick snack or break for lunch, a three to four hour visit might be just what is needed to step back in time to view the history of so many marvels from a bygone era. Or let the little ones take part in one of the numerous interactive activities designed for engagement at all levels.

For more information and helpful tips to plan your trip, visit pimaair.org.



Museums of Fort Huachuca tell the stories of many

by Jenna Bigham
Aerotech News

As the current home to the U.S. Army Intelligence Center of Excellence, the U.S. Army Network Enterprise Technology Command (NETCOM)/9th Army Signal Command and more than 48 supported tenants, and a past filled with many more who have gone before, Fort Huachuca in Arizona holds the key to a vast amount of the U.S. Army's history in the Southwest.

What many members of the public may not realize however, is that the story of that history is also available to the public through two museums located on the installation near Sierra Vista, Arizona.

Visiting the museums may not be on your radar of opportunities as they're located through the installation gates, but a quick stop for a visitor's pass along with a security and background check will open up the chance to visit the two museums free of charge.

"It's important for the public to know what great capabilities are on their side from the past and present," said William Heidner, Fort Huachuca Museum director.

The museums, the Fort Huachuca Museum (often referred to as the "Buffalo Soldier Museum") and the Military Intelligence Soldier Heritage Learning Center, offer a glimpse into the history of the base from earlier times on the frontier through World War II, the Cold War Era and beyond.

Documents, graphics, displays, mannequins, audio presentations and interactive exhibits provide visitors with an experience into the past unlike any other telling the history of the southwest from Fort Huachuca's perspective.

"I enjoy telling the story of all branches, but especially like to tell the Army story, and help with instilling a sense of pride and esprit de corps for our military personnel and their

families as they visit too." said Heidner.

With additional exhibits like the largest piece of the Berlin Wall on display in Arizona, a World War II German Enigma cipher machine, a vehicle operated by the U.S. Army Military Liaison Mission during the Cold War and signals intelligence gear used by the Army Security Agency, manned and unmanned intelligence aircraft outdoor displays at the Air Park and more, visitors should plan ahead for a two- to four-hour visit to take it all in at both museum locations, the annex and outdoor air park.

Installation entry procedures may change from time to time, so be sure to check with the Visitor Control Center at the Van Deman Gate ahead of time if making a long drive to visit. Normal hours of operation for the Fort Huachuca Museum are Tuesday-Saturday from 9 a.m. to 4 p.m., and for the Military Intelligence Soldier Heritage Learning Center, Monday-Friday from 9:30 a.m. to 6:30 p.m. and Saturday from 10 a.m. to 4 p.m.



Courtesy photographs



Walk the halls of the Titan Missile Museum

At the Titan Missile Museum, near Tucson, Ariz., visitors journey through time to stand on the front line of the Cold War. This preserved Titan II missile site, officially known as complex 571-7, is all that remains of the 54 Titan II missile sites that were on alert across the United States from 1963 to 1987.

This one-of-a kind museum gives visitors a rare look at the technology used by the United States to deter nuclear war. What was once one of America's most top secret places is now a National Historic Landmark, fulfilling its new mission of bringing Cold War history to life for millions of visitors from around the world. Join us now for your own tour!

During the summer, June-September, the museum is open 9:45 a.m.-5 p.m., Thursday-Monday, with the first tour starting at 10 a.m.

From October-May, the museum is open seven-days a week, 9:45 a.m.-5 p.m., with again the first tour starting at 10 a.m.

Each tour last 45 minutes, and is limited to 26 visitors per tour, so it is recommended to reserve your spot and purchase your tickets, online, ahead of time.

Everyone in your party must be able to safely descend and ascend 55 stairs (there is no elevator access to the underground silo).

For more information, visit <https://titanmissilemuseum.org> or call 520-625-7736.



Air Force photograph by Airman 1st Class Chris Massey

A pararescueman from the 48th Rescue Squadron walks across the cableway at Titan Missile Museum, Green Valley, Ariz. The unique layout of the museum allowed the 48th Rescue Squadron to conduct high angle, confined space training throughout eight levels of an underground missile silo. Public visitors to the museum can get a similar experience on one of the guided tours through the same halls once walked by crew members in the only remaining Titan II site open to the public.



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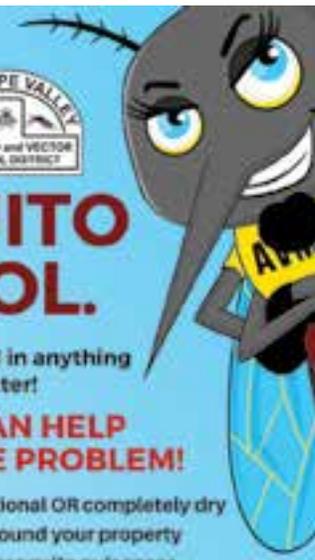
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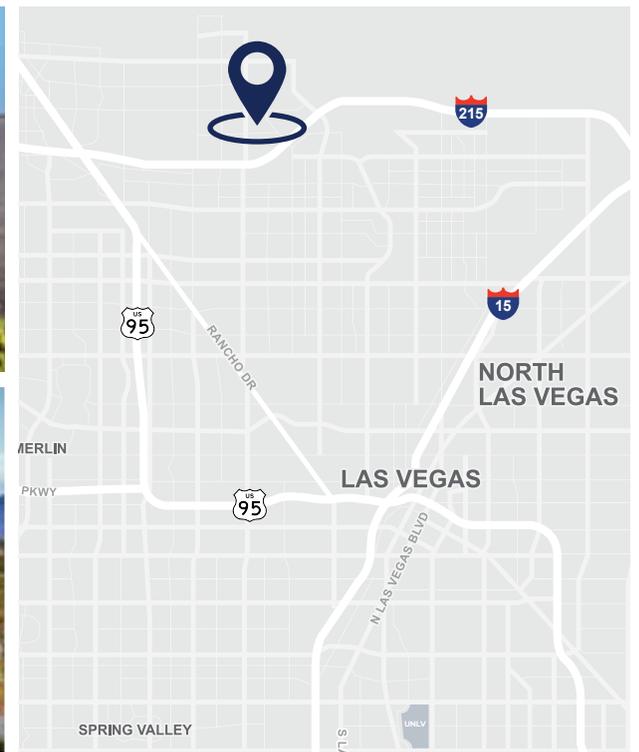
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