



## A-10 Thunderbolt IIs conduct ACE training on Rogers Dry Lake Bed



Air Force photographs by Giancarlo Casem

by **Giancarlo Casem**  
Edwards AFB, Calif.

Clear blue skies almost year-round, along with the pristine and legendary Rogers Dry Lake Bed, have made Edwards Air Force Base, Calif., an ideal candidate to host Agile Combat Employment, or ACE, training.

The 412th Operations Support Squadron hosted four A-10 Thunderbolt IIs from the 355th Wing out of Davis-Monthan Air Force Base, Ariz., and small team of Airmen from the 821st Contingency Response Squadron out of Travis Air Force Base, Calif., to conduct ACE training, June 27, 2022.

“ACE is the faster way of doing things,” said Staff Sgt. Jordan Whitworth, 412th Operations Support Squadron. “You have an airfield manager that can upload and download aircraft and talk aircraft down from the ground so you can have a 10, 15, 20-man team doing a job of 100 or 150-man team and it’s a lot smaller footprint. So we can land it in a lake bed or a flat area in the middle of nowhere, set up, start landing aircraft in a few hours and take off before anybody even knows it’s there.”

The Air Force recently announced its vision for operating in modern, contested environments and aims to synchronize ACE tactics enterprise-wide.

Adversary threats to Air Force operations at forward bases can deny U.S. power projection, overwhelm

See A-10, Page 2



**Top:** An A-10 Thunderbolt II, assigned to the 355th Wing, out of Davis-Monthan Air Force Base, Ariz., takes off from Rogers Dry Lake during an Agile Combat Employment Exercise on Edwards Air Force Base, Calif., June 27, 2022. The training featured Airmen from the 821st Contingency Response Squadron, out of Travis Air Force Base, Calif., and the 412th Operations Support Squadron based at Edwards AFB. **Above:** An A-10 Thunderbolt II, from Davis-Monthan Air Force Base, Ariz., takes off from Rogers Dry Lake, June 27, 2022, while other A-10s stand by.





Air Force photograph by Giancarlo Casem

An A-10 Thunderbolt II, assigned to the 355th Wing, out of Davis-Monthan Air Force Base, Ariz., takes off from Rogers Dry Lake during an Agile Combat Employment Exercise on Edwards Air Force Base, Calif., June 27, 2022.

traditional defense designs, impose prohibitive losses and lead to joint mission failure. To address these challenges, ACE shifts operations from centralized physical infrastructures to a network of smaller, dispersed locations or cluster bases.

Contingency operations may necessitate Airmen to utilize ACE concepts and operate in austere environments and Edwards AFB affords contingency response units, such as the 821st CRS, an area to hone and expand their capabilities to be Multi-Capable Airmen.

Rogers Dry Lake Bed took center stage during the ACE training. The lake bed is Edwards AFB's most prominent natural landmark, and at about 65 square miles, it is visible from thousands of feet in the air. The dry lake's natural hardened clay is able to withstand around 250

pounds per square inch. It is wide and strong enough to support space shuttle landings and other historic experimental aircraft such as the X-1 and X-15.

"Edwards gives us the perfect opportunity to use a pristine dry lake bed that is already being used for a test facility," said Staff Sgt. Denver Davis, 821st CRS. "We can implement these concepts in a safe environment with facilities close by."

Before the 821st CRS Airmen were able to land the 355th Wing's A-10s on Rogers Dry Lake Bed, they assessed its condition and suitability for the mission.

"We assessed an airfield in an austere location," said Staff Sgt. Denver Davis, 821st CRS. "We landed four A-10s from multiple approaches to verify we have the ability to integrate with

fighter squadrons and attack squadrons."

After the 821st CRS team successfully landed the A-10s, they once again inspected the lakebed runways, making note of the tire ruts created by the aircrafts' landing gears.

Davis explained that the MCA skillset is vital for Airmen who may be deployed to different areas of the world, with different missions such as humanitarian aid or evacuations. The ACE training also further improves their MCA skills by allowing them to train with different aircraft types, something that Edwards AFB ground crews are adept at due to 412th Test Wing's fleet of various fighters, bombers and cargo airframes.

"Without the help of the 412th OSS ... we would not be able to come down here and implement these capabilities at Edwards Air Force Base, and I thank them for helping us," Davis said.

## 445th Test Squadron reactivated

by Giancarlo Casem  
Edwards AFB, Calif.

The 412th Electronic Warfare Group, 412th Test Wing, reactivated the 445th Test Squadron during a ceremony on Edwards Air Force Base, Calif., June 29, 2022.

The 445th Test Squadron's primary mission will be the Joint Simulation Environment which will provide a state-of-the-art modeling and simulation environment to conduct fifth-generation and next-generation developmental test, operational test, and high-end advanced training and tactics development for the warfighter, as a part of the 412th Electronic Warfare Group. The 445th will be led by Lt. Col. James Peterson who officially took command during the ceremony.

"This is a chance for us to stand up a unit that's got an amazing heritage and pedigree pushing the unknown... pushing the edge of test, pushing the edge of aviation, pushing the edge of tactics, training and understanding of what the Air Force can do in the air," said Col. Jay Orson, 412th EWG Commander.

The the 72,000 square foot Edwards JSE aims to replicate dense-threat environments that can't be realized strictly with open-air test resources, it is one of two JSEs within the Air Force Test Center enterprise, with the other one at Nellis AFB, Nev. The JSE at Edwards will support 8 High-Fidelity Dome Simulators, space to house additional dome simulators, test control rooms, support space for cyber and space test operations, data analysis and knowledge management.

The 445th's history dates back to 1943 as the 445th Fighter Squadron (Special), assigned to the 50th Fighter Group, as a training unit. It later became the first squadron designated solely for fighter jets.

By 1994, it had changed from a training unit to a flight test squadron, and it would stay in that role until it was deactivated in 2001.

It was reactivated as a consolidated Test Operations Squadron under the 412th Operations Group, in March 2004. In this role it conducted projects unaffiliated with any of the Wing's Combined Test Forces and flew F-16s for photo and safety chase. It served the 412th Operations Group in that capacity until it was inactivated again on May 1, 2015.

"This is truly a historic moment," said Col. Jay Orson, 412th EWG Commander. "Not only are we standing up a new squadron, we're also putting in a really good commander."

After the orders to reactivate the 445th was read, the new commander, Peterson, took time to address his new team.

"I look forward to taking on this challenge, and to members of the reinstated 445th, this is my pledge to you: that I will do my utmost to support everyone in the squadron to the best of my ability and know that I work for you to ensure your success and the accomplishment of our critical mission, the United States and its allies. My second pledge to you is: I will not make these decisions in a vacuum. I will listen to the advice of those around me. And if I don't do these things, please call me out and set me straight," Peterson said.

As the construction on the Edwards JSE continues along and following the unit's reactivation, Peterson noted that the 445th's work is far from over.

"We have a new and exciting mission, building and maintaining the digital test range for advanced aircraft fleet," he said. "But as you know the work doesn't stop here with the standup there's still years of work left before we're ready for primetime."

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# New Materiel Command commander visits Edwards



Air Force photograph by Lisa Dixon

Gen. Duke Z. Richardson, Air Force Materiel Command commander, talks to a group of enlisted 412th Test Wing Airmen during his visit to Edwards Air Force Base, Calif., July 14, 2022. Richardson took command of AFMC on June 13, 2022.



Air Force photograph by James West

Gen. Duke Z. Richardson, Air Force Materiel Command commander, tests a virtual reality educational tool while Amira Flores, DOD STARBASE-Edwards director, provides instruction, on Edwards Air Force Base, Calif., July 13, 2022. DOD STARBASE is an educational program sponsored by the Office of the Assistant Secretary of Defense for Reserve Affairs. Students can participate in challenging “hands-on, mind-on” activities in aviation, science, technology, engineering, math, and space exploration.



Air Force photograph by James West

Gen. Duke Z. Richardson, Air Force Materiel Command commander, examines a class photo during his visit to the U.S. Air Force Test Pilot School at Edwards Air Force Base, Calif., July 13, 2022. Richardson toured the facility as he was briefed on the TPS curriculum.



Air Force photograph by James West

Gen. Duke Z. Richardson, Air Force Materiel Command commander, tours the soon-to-open Desert Junior/ Senior High School and learns about the construction and new facilities installed for the students during his visit to Edwards Air Force Base, Calif., July 13, 2022.



Air Force photograph by James West

Lt. Col. Adam Brooks, Emerging Technology Combined Test Force commander, briefs Gen. Duke Z. Richardson, Air Force Materiel Command commander, on the ET-CTF mission as they walk past some of the CTF's fleet of sUAS (small Unmanned Aerial System) test beds at Edwards Air Force Base, Calif., July 13, 2022.



Air Force photograph by Todd Schannuth

**Right:** Lt. Col. Kristopher Rorberg, 412th Operations Support Squadron commander, briefs Gen. Duke Z. Richardson, Air Force Materiel Command commander, on the current status of the secondary runway on Edwards Air Force Base, Calif., July 13, 2022. Rorberg briefed Richardson on the runway's condition and how it affects flight test missions at Edwards AFB.



# Building the infrastructure for Advanced Air Mobility

by **Teresa Whiting**  
NASA Armstrong

Small drones delivering packages, air taxis carrying passengers, or air ambulance providing lifesaving transportation — these are just some of the concepts NASA’s Advanced Air Mobility mission is helping get into our skies.

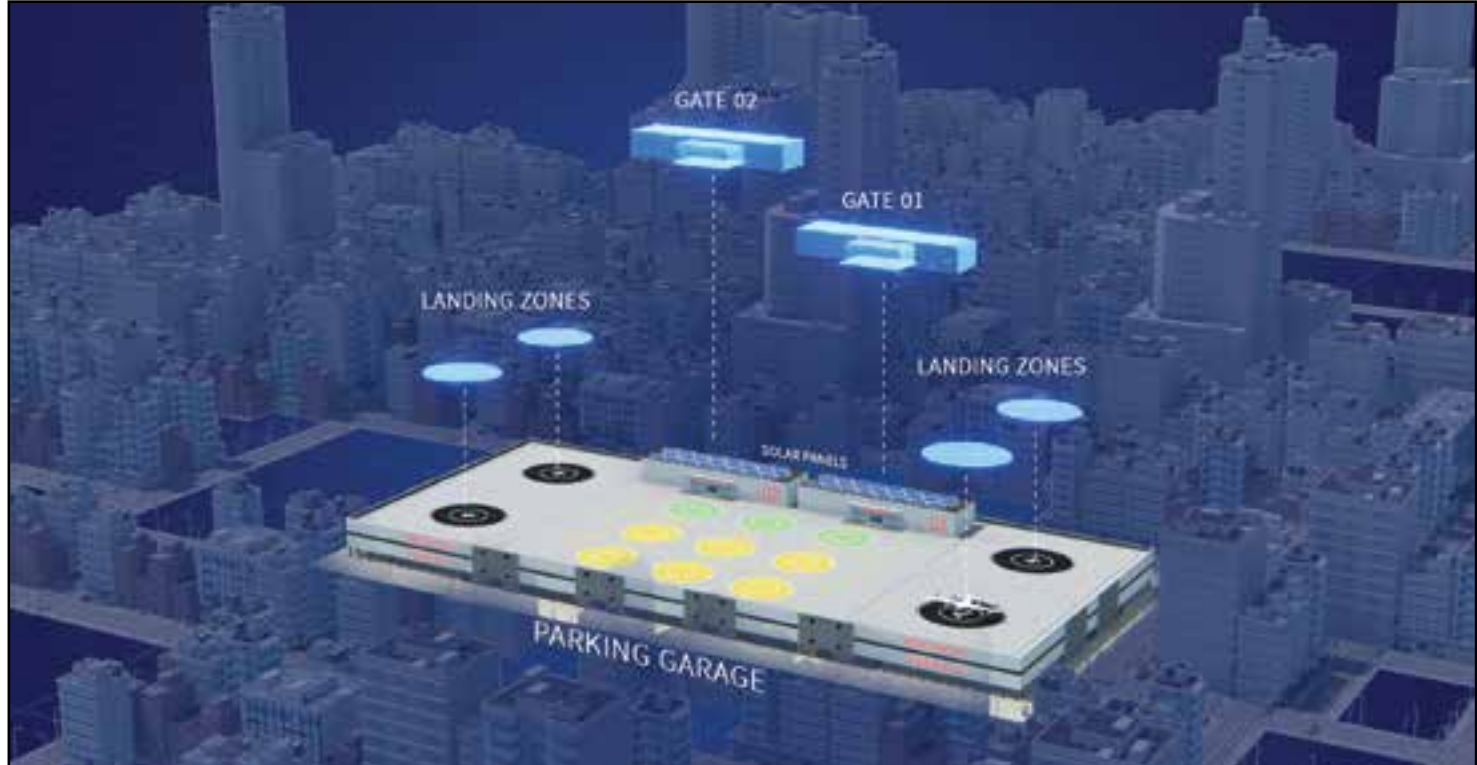
For these aircraft to safely operate, cities, suburbs, and rural areas will need new or enhanced infrastructure.

Imagine a network of routes where new aircraft would fly lower than traditional aircraft. NASA researchers are currently considering the network infrastructure required to enable these aircraft to digitally communicate, as well as the surfaces they would need to take off and land.

Any time new transportation is introduced, communities have to plan how they will work with existing infrastructure and evolve with new adaptations. NASA’s Advanced Air Mobility mission is researching how adding new aviation capabilities into our everyday lives will affect communities. This includes physical areas of focus — including adding vertiports to existing airports and creating charging stations for mostly electric aircraft — and digital areas of focus, such as how aircraft will communicate with one another and with air traffic control.

NASA’s Advanced Air Mobility National Campaign is already conducting testing using helicopters to assess how new AAM aircraft will move in and out of locations. The next phase of this research involves working with partners who have electric vertical take-off and landing aircraft (eVTOLs) capable of interacting with prototype vertiports.

The AAM mission includes multiple projects



NASA graphic by Kyle Jenkins

Several projects supporting NASA’s Advanced Air Mobility, or AAM mission, are working on different elements to help make AAM a reality. In order for these new AAM aircraft to safely operate, new infrastructure and changes to current infrastructure will need to be developed in cities, suburbs, and rural areas.

with different focus areas that will help make these visions into reality. This includes work on automation, noise, vertiport and vehicle design, as well as airspace integration to keep everyone safe while flying. Government agencies, industry,

and the public, will need to combine their efforts to build new highways in the sky.

NASA’s vision is to map out a safe, accessible, and affordable new air transportation system alongside industry and community partners and

the Federal Aviation Administration. These new capabilities would allow passengers and cargo to travel on-demand in innovative, automated aircraft across town, between neighboring cities, or to other locations typically accessed today by car.



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# Virgin Orbit branching out: First international commercial rocket launch set for UK

by **Cathy Hansen**  
special to Aerotech News

Last month Virgin Orbit announced that their first international commercial rocket launch will carry a joint UK/U.S. mission.

This historic launch, the first ever on British soil and the first commercial launch from Western Europe, will feature a shared mission between the United Kingdom's Ministry of Defense and the United States' National Reconnaissance Office. The launch is scheduled to take place later in the year out of Newquay Airport in Cornwall, in southwestern Britain. 'Cosmic Girl' will fly from Mojave Air and Space Port to Cornwall.

The mission is expected to pave the way for a more collaborative and connected space communication system between the United States and its allies. The two Prometheus 2 CubeSats Virgin Orbit will deploy will provide a test platform for monitoring radio signals, including GPS and sophisticated imaging.

The Prometheus satellites cost less than \$100,000 each, are expected to have a service life of three to five years and are demonstrating the capability to transfer audio, video, and data files from man-portable, low-profile, remotely located field units to deployable ground stations terminals using over-the-horizon satellite communications. Each satellite features four deployable solar arrays and

a deployable helix antenna. The second generation Block 2 satellites feature several improvements. The solar arrays have been enlarged and the attitude control system has been improved. A star field sensor and a GPS receiver were added. Also they provide the opportunity for hosted payloads, as a 1.5U payload module can be added to each satellite.

## Virgin Orbit Brazil

The Brazilian Space Agency and Virgin Orbit have formed a new subsidiary — Virgin Orbit Brazil, Ltd., to conduct launches from Brazil's Alcantara Space Center.

Cosmic Girl will fly hundreds of miles before releasing a rocket directly above the equator (known as a global sweet spot) or at other optimal locations identified for each individual mission.

In addition to bringing this important new capability to the country and economic value to the region, the locale is geographically one of the most advantageous places in the world for the LauncherOne system to launch satellites into orbit.

Virgin Orbit believes this is another step towards opening space for good, for everyone, from everywhere.

## Plans for additional launch aircraft

Virgin Orbit signed an agreement with

L3Harris Technologies earlier this year to acquire two more 747-400 aircraft to meet the growing demand for low-Earth satellite launches.

L3Harris Technologies is an American technology company with a global reach as a defense contractor, and information technology services provider that produces C6ISR systems and products, wireless equipment, tactical radios, avionics and electronic systems, night vision equipment, and both terrestrial and space-borne antennas.

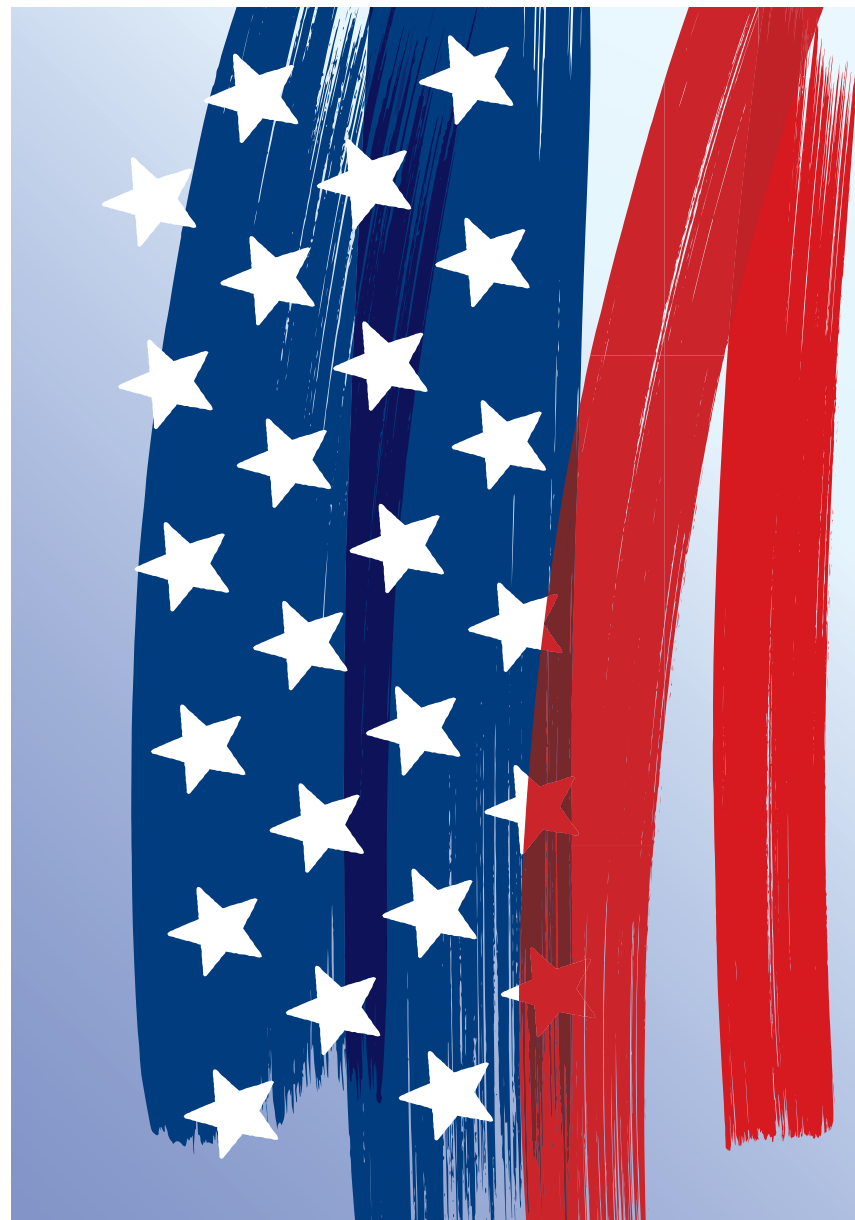
One aircraft will be modified to carry LauncherOne for satellite launches and the other 747 will not only be modified as a launch aircraft, but will also be designed with the capability of a cargo ship to carry and deliver rockets and ground

support equipment to foreign space centers.

L3Harris and Virgin Orbit have worked together before to produce Virgin Orbit's flagship aircraft Cosmic Girl, which was previously a passenger plane flown by Virgin Atlantic.

"Virgin Orbit is at an exciting juncture in our growth as a company," said CEO Dan Hart. "As we expand our fleet to serve customers worldwide, we're enthusiastic to once again partner with L3Harris."

Virgin Orbit's Cosmic Girl has already completed three commercial launches, successfully deploying 26 customer satellites into orbit for multiple commercial, government and military customers, including the U.S. Space Force and NASA.



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# Air Force completes another successful hypersonic test

The U.S. Air Force conducted another successful hypersonic test off the Southern California coast, July 12.

The Air-Launched Rapid Response Weapon Booster Test Flight-3 was the 12th flight for the program and third release demonstration. The AGM-183A weapons system reached hypersonic speeds and primary and secondary objectives were met.

“This was another important milestone for the Air Force’s first air-launched hypersonic weapon,” said Brig. Gen. Heath Collins, Armament Directorate program executive officer. “The test successfully demonstrated booster performance expanding the operational envelope. We have now completed our booster test series and are ready to move forward to all-up-round testing later this year.

“Congratulations to the entire ARRW team, your dedication and expertise are what got us here.”

ARRW is designed to provide the ability to destroy high-value, time-sensitive targets. It will also expand precision-strike weapon systems’ capabilities by enabling rapid response strikes against heavily defended land targets.



Air Force photograph by Christopher Okula

A B-52 from the 419th Flight Test Squadron out of Edwards Air Force Base, Calif., carries a prototype of the AGM-183A Air-Launched Rapid Response Weapon, or ARRW, for its first captive carry flight, June 12, 2019. The Air Force conducted another successful hypersonic test off the Southern California coast, July 12. The Air-Launched Rapid Response Weapon Booster Test Flight-3 was the 12th flight for the program and third release demonstration. The AGM-183A weapons system reached hypersonic speeds and primary and secondary objectives were met.

## Veteran's Briefs

### New veterans Crisis Line phone number

Effective July 16, veterans have the option to Dial 988 then Press 1 to connect with caring, qualified responders for 24/7 crisis support.

In response to the National Suicide Hotline Designation Act designating the 988 Suicide and Crisis Lifeline, the Department of Veterans Affairs has made it more user friendly to access the Veterans Crisis Line.

“During a crisis, every second counts,” said VA Secretary Denis McDonough. “This new, shorter number makes it easier for veterans and those who care about them to reach lifesaving support without having to be enrolled in VA benefits or health care.”

Reducing veteran suicide is the top clinical priority for the Department of Veterans Affairs and a top priority for the Biden-Harris administration. Enhancing suicide prevention crisis services is a key component of the White House strategy on reducing veteran suicide as well as President Biden’s comprehensive strategy to address the country’s national mental health crisis.

VA operates the Veterans Crisis Line through the 988 Lifeline’s national network and thus collaborated to accomplish the successful transition. During two years of preparation, the department has added hundreds of crisis line employees and responder staff, with still more hiring underway, and has strengthened call center infrastructure.

The Veterans Crisis Line is a critical component of the nation’s largest integrated suicide prevention network. It links to more than 500 suicide prevention coordinators across the VA health care system, ensuring coordination into follow-up services as part of a full continuum of care.

Individuals who call the Veterans Crisis Line are five times more likely to have less distress and less suicidal ideation from the beginning to end of the call.

While Dial 988 then Press 1 is a new option for contacting the veterans Crisis Line, the original number: 1-800-273-8255 and press 1, remains available, and Veterans can continue to reach out via chat at VeteransCrisisLine.net/Chat or by text to 838255.

### VA expands live donor care and support

The Department of Veterans Affairs implemented a final rule July 1 describing the authority to provide support for donation procedures and related care to those who donate an organ or bone marrow to Veterans for transplants.

Live donor support includes the following at no cost to the live donor, both in-house and in the community:

- Initial screening, tests and studies necessary to qualify an interested individual as a live donor for a specific Veteran.
- Medical care and services related to the solid organ or bone marrow donation procedure.
- Post-donation follow-up, to include medical care and services required to address reasonably foreseeable donor health complications resulting directly from the donation procedure for the period specified in the regulation.
- Necessary travel and temporary lodging expenses, including those of one needed attendant or support person for the live donor, at rates prescribed in the regulation.

The final rule also highlights the informed consent rights of live donors, including the right to revoke their consent at any time and for any reason. Additionally, growing awareness and use of paired kidney donations or kidney donation chains in the private sector are voluntary efforts that could benefit veterans, and so these are specifically addressed in the final rule.

“The more live donors we have, the more the gift of life is given to the Veterans we serve,” said VA National Director of Clinical Services Manimegalai Murugavel D.N.P. “We know the availability of live organs and bone marrow does not meet the need for transplants nationwide. That’s why it’s important we find live donors to facilitate transplantation within a reasonably short time

compared to the wait time of an organ from a deceased donor.”

As part of the integral care required by an eligible veteran in need of a transplant, VA has offered solid organ transplant services since 1962 and bone marrow transplant services since 1982, including providing care and services for live donors donating a solid organ or bone marrow to a Veteran.

On average, VA receives over 3,500 referrals for transplants each year and performs more than 480 solid organ and bone marrow transplant procedures including live donor transplantation.

Learn more about the VA National Transplant Program. The final rule is available at the Federal Register.

### VA suspends annual reassessments in the Program of Comprehensive Assistance for Family Caregivers

The VA is suspending annual reassessments for participants of the Program of Comprehensive Assistance for Family Caregivers while the department continues its review of PCAFC.

This applies to all veterans and family caregivers participating in the program; additionally, VA will not discharge or reduce stipends based on a reassessment.

“President Biden has made clear ‘because veterans are the backbone, the spine of who we are as a country,’ we have a sacred obligation to care for them, their families, caregivers and survivors,” said VA Deputy Secretary Donald Remy. “Although we’ve come a long way in supporting caregivers through the Program of Comprehensive Assistance for Family Caregivers, we have much more work to do. In our effort to uphold our sacred obligation to families of veterans, VA continues its review of PCAFC to ensure department requirements and procedures meet the needs of caregivers and veterans participating in the program.”

Facility Caregiver Support Program staff will however continue to initiate reassessments for Veterans and family caregivers for certain purposes, such as when a veteran or caregiver requests to be considered for an increase in stipend level or if there is evidence of an increased need for personal care services. VA will also continue to conduct wellness visits. Appeal and review options for those who disagree with a PCAFC determination remain the same.

For more information, contact your local CSP team with any additional questions.



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*On this date...*



**July 23, 1956:** Air Force Lt. Col. Frank Kendall "Pete" Everest became "The Fastest Man Alive" when he flew the Bell X-2 rocket plane to Mach 2.87 at 87,808 feet. The X-2 was air-dropped from Boeing EB-50D Superfortress 48-096, near Edwards Air Force Base, Calif. The X-2 was a joint project of the U.S. Air Force and the National Advisory Committee for Aeronautics, the predecessor of NASA) The rocketplane was designed and built by Bell Aircraft Corporation to explore supersonic flight at speeds beyond the capabilities of the earlier Bell X-1 and Douglas D-558-2 Skyrocket. In addition to the aerodynamic effects of speeds in the Mach 2.0–Mach 3.0 range, engineers knew that the high temperatures created by aerodynamic friction would be a problem, so the aircraft was built from Stainless Steel and K-Monel, a copper-nickel alloy.



**July 26, 1998:** The Burt Rutan designed, Scaled Composites Proteus aircraft made its first flight at the Mojave Air and Space Port. Proteus is a twin-turboprop, high-altitude, multi-mission aircraft powered by Williams International FJ44-2E engines. It was designed to carry payloads in the 2,000-pound class to altitudes above 50,000 feet and remain on station up to 14 hours. It was intended for both piloted and UAV missions. Missions for Proteus include telecommunications, reconnaissance, atmospheric research, commercial imaging and space launch. The Proteus was designed with long wings and a low wing loading needed for efficient high altitude loiter.



**July 29, 1971:** The Martin Marietta X-24A lifting body completed its flight test program. It was then converted to a different shape with the X-24B designation. The X-24 was one of a group of lifting bodies flown by the NASA's Flight Research Center, in a joint program with the U.S. Air Force at Edwards Air Force Base in California from 1963 to 1975. The lifting bodies were used to demonstrate the ability of pilots to maneuver and safely land wingless vehicles, designed to fly back to Earth from space and be landed like an airplane at a predetermined site. The X-24A was a fat, short teardrop shape with vertical fins for control.

**July 23, 1962:** Col. Charles E. "Chuck" Yeager became commandant of the U.S. Air Force Aerospace Research Pilot School at Edwards Air Force Base, Calif., following an assignment at the base as deputy director of flight test.



**July 27, 1972:** The McDonnell Douglas YF-15A MC Eagle, with company test pilot Irving L. Burrows at the controls, made its first flight at Edwards Air Force Base, Calif.



**July 28, 1976:** Capt. Eldon W. Joersz and Maj. George T. Morgan flew an SR-71 at 2,193.64 mph to set two records: world absolute and jet speed over a 15/25 kilometer straight course.

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# Fisher P-75 Eagle:

## A hodgepodge of parts merged into potential fighter

by Bob Alvis  
special to Aerotech News

When you live in the Aerospace Valley, you're aware of the interesting and exotic aircraft routinely taking to our skies over the years. For decades it was always a treat to go to the Edwards Airshows since we used to have so many contractors involved with varied programs that walking the airshow flight line was like a candy store of exotic aircraft.

Now times have changed; only a few manufacturers display their projects for public view since in today's world secrecy is paramount to national security.

Many times, people feel that all flight testing managed to find its way to our lake beds sooner or later, but many aircraft developed over the years never made it out this way except for maybe a curiosity check or some specialized assignments. That brings me to an aircraft that never hit the big time but became one of the most bizarre projects of all time. My interest was piqued when I saw a photo of the only remaining Fisher P-75 sitting in front of the XB-70 in Dayton, Ohio.

When somebody mentions the Fisher P-75 Eagle most people would think they are referring to something other than an airplane, but an airplane it was, and it grew from the World War II panic that set in when the United States was scrambling to build an air force that could take on the world.

General Motors wanted to get into the aircraft building business, and in 1942 had just come out with the Allison V-3420-19 engine. GM decided to build a new fighter around the engine design. Designer Don Berlin, the driving force behind the P-40 Warhawk, sent a proposal on the new aircraft to the government in September 1942 and in less than a month a contract was signed for two prototypes. GM's Fisher Body division would undertake the construction of the new aircraft.

One of the strangest practices took place to get the aircraft into the air as quickly as possible, when other aircraft components from other companies were used in its construction. From



Courtesy photograph

The Fisher P-75 Eagle sits in front of the XB-70 at the National Museum of the Air Force in Dayton, Ohio.

Bell Aircraft the wings from the P-40 Warhawk were used, from Douglas aircraft the tail section from the SBD dive bombers was used and from the Vought Company the landing gear from the F4U Corsair was utilized. Even its designation drew from a strange source as the XP-75 was a patriotic gesture taken from the famous French 75 cannon of World War I fame.

The idea was to build a fighter in a very short time and even as it was being hatched, pens and paper were flying. Before it had even flown contracts were drawn to produce 2,500 P-75A's

that would be armed with six fifty-caliber guns in the wings and four fifty-caliber guns fitted to fire through the propeller. That feature alone would be a real challenge, as the Eagle was also fitted with counter rotating propellers.

As you would expect, such a mish-mash of aircraft components and a newly designed engine became an albatross in the air. When flight test began on Nov. 17, 1943, it was found that the aircraft had all kinds of aerodynamic problems including poor spin recovery, instability, slow rate of roll and a top speed 30 mph slower than expected. With all the issues the projected date of at least 600 long range Eagles being in combat in October of 1944 was instead replaced with a cancellation order on the 27th of that month.

When it came to an end only six examples had been built at a cost of \$50 million dollars and General Motors was now worried that they would be tasked to build B-29's for Boeing when their main objective was to become a fighter plane company. Their only other project was building the TBM Avenger for Grumman, and they wanted their own logo on an aircraft.

In the end it was labeled a monumental failure as the P-75 was passed off as being one of the very first overpriced and underdelivered aircraft of the era. Thankfully the P-51 Mustang

and P-38 Lightning were more than capable of picking up the slack for the over-hyped Fisher Eagle.

After the war the P-75 faded into the sunset quickly, since disasters like this needed to be quickly buried from the public eye. The big corporate names involved do not care much for answering for failed projects as these. It's amazing that after all this time one example of the Fisher Eagle managed to survive — tail number 44-44553. For decades it was in "deep storage," as they say in Dayton, Ohio, and when finally given the nod it was restored back to its original luster by a skilled museum restoration crew, and became a monument to a failed attempt at creating a new type

of fighting machine.

Many aircraft over the years never managed to make the grade, and the forgotten Fisher fighter that was known as "The Spare Parts Fighter" was the champion. Like many things conceived under stress it was the perfect example of "let's just throw stuff at the wall and see what sticks." Luckily, we had a lot of other aircraft that *did* stick, and we overcame the war nerves of building things without really thinking about what we were going to end up with.

Next time you visit Dayton take the time to search out this strange beauty that looks like a million dollars! Well, in all honesty, \$50 million.

Until next time, Bob out ...

The Allison V-3420-19 that was used in the Fisher P-75 Eagle.



Courtesy photograph

The Fisher P-75 Eagle in flight.



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