



Virgin Orbit successfully completes night launch

by KC Rawley
staff writer

Virgin Orbit successfully launched Straight Up, USSF Mission Number: STP-S28A, their first nighttime mission from the Mojave Air and Space Port July 2, 2022, after a previous attempt on June 29 was scrubbed due to a propellant temperature problem.

The rocket used in the Straight Up mission was mated on June 17 to Cosmic Girl, the 747 aircraft that serves as Virgin Orbit's fully reusable launch platform. The rocket containing the payloads is tucked under the wing and launched from the 747 by LauncherOne over the California coast.

The launch began at 10:50 p.m. and ended at approximately 12:55 a.m., PDT, with the successful deployment of all seven payloads. While there was no "hard requirement" for a nighttime launch, Virgin Orbit officials said they considered it a precursor for the United Kingdom's first satellite launch later this summer from Cornwall, in southwest Britain. One of satellites aboard this mission was from Scotland, according to the www.gov.uk website.

The UK official site also says that their National Space Strategy describes "how the UK will become the first country in Europe to launch satellites into orbit in 2022. Spaceport Cornwall is one of seven potential spaceport sites across the UK which will help to cement the nation's role as a science superpower and help unleash a wave of innovation across the country."

Matthew Archer, director of commercial spaceflight at the UK Space agency was in Mojave for the launch and said in a statement, "The success of the Straight Up mission is another exciting milestone on our way to seeing the first



Virgin Orbit photograph

The Cosmic Girl 747 lifts off the runway at Mojave Air and Space Port during the Straight Up launch. The LauncherOne can be seen on the right, under the wing.

satellite launch from UK soil. We are working closely with Virgin Orbit and it was a privilege to be alongside our partners to witness another successful launch for the team."

The launch livestream explained that a nighttime launch from that spot in Britain is necessary because the customer has a requirement, called Local Time of Ascending Node. "The satellite will pass the Equator and they want it to happen the same time of day every time it passes it. In order to do that, we have to launch at a specific time," in this case, midnight.

"The LauncherOne rocket and Virgin Orbit team have made me immensely proud with today's Straight Up mission," said Virgin Orbit founder Richard Branson. "There is so much potential benefit for everyone from space if we just manage it well together. We are delighted for the opportunity to work with the US government to help make space a safe and fruitful environment for all."

The pilot in command was Eric Bippert, who has experience flying 49 different aircraft from the C-17 to the Goodyear Blimp, and second in command was Mathew "Stanny: Stannard, on loan from the Royal Air Force.

The seven payloads on the rocket are part of the U.S. Department of Defense's Space Test Program and will conduct experiments in space-based communications and to demonstrate a new modular satellite housing, or "bus;" space domain awareness to identify and protect assets in space; and adaptive radio frequency technologies. Space Force procured the launch for the Rocket Systems Launch Program.

Other payloads discussed on the livestream include: the Compact Solar Total Radiance Monitor, a six CubeSat. Its specialized sensors will monitor the sun's energy entering the earth's atmosphere.

Another one is XGPX2, a technology demonstration. It uses both orbiting satellites and ground station satellites to significantly increase the accuracy of the GPS. Nachos Two will measure gases in the atmosphere to track things such as volcanoes and climate change. As the name implies, it is the second in the series.

Program Manager Lt. Col. Justin Belts, chief of Small Launch and Targets Division at U.S. Space Force in Albuquerque, N.M., said "All seven of the payloads are important to us, but I think the Slingshot One payload that we will be flying is a great example" of Virgin orbit's mission statement of "Opening space for good."

"It is a partnership between government and industry. It is a larger 12 CubeSat and it uses a plug and play standard interface to have a number of experiments on the same CubeSat and it is advancing intelligence to cyber security, across the board that we can do ... it is one of the biggest satellites that we have launched with LauncherOne. The other payload is studying gases in the atmosphere to look at phenomena [like] volcanic eruptions, said Belts.



Virgin Orbit photograph

Paula Abdul touring the Cosmic Girl prior to launch in Mojave. The "Straight Up" mission name was inspired by the song from her debut studio album, "Forever Your Girl."

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Paratrooper veterans jump for D-Day anniversary in France

by Dennis Anderson
special to Aerotech News

NORMANDY, France—We had been airborne aboard the World War II vintage C-47 dubbed “Pegasus” less than 10 minutes when our veteran jumpmaster shouted, “Get Ready!” We stood up, hooking up our static lines. Six minutes, three, one, and “Go!”

That was how close in flying time from our airfield at the coastal tip of Cherbourg, France, was to Utah Beach where the 4th Infantry Division waded ashore in the face of Nazi bullets and booming artillery on D-Day, June 6, 1944.

Seventy-eight years later, we were gazing down at the wide sands of Utah Beach from our troop carrier transport. We were flying in an airplane built before Operation Overlord, one of the final chapters of the Second World War in Europe.

Lurching forward in the pitching aircraft, we handed our static line off to our jumpmaster, a retired Green Beret lieutenant colonel. We each looked him in the eye and stepped out the door, at 100 mph, about 1,500 feet above the World War II drop zone where Pathfinders of the 101st Airborne Division jumped into France in the pre-dawn hours of D-Day.

They were the first paratroopers to land in France, and we were the most recent. I had come to Normandy to make jumps at D-Day drop zones, one for the 101st Airborne and the other for the 82nd Airborne Division. At that moment, I was seconds away from standing in the door and jumping.

Vaulting into the wind stream feels, I imagine, like getting shot out of a cannon, and my green, round military parachute snapped open with a jolt I could feel from my shoulders to my Corcoran jump boots. Under a good canopy, you could see Utah Beach on descent, but it was time to turn the canopy, and head toward a road that was the biggest terrain feature near the drop zone. I could see the verdant green farm land of Normandy beneath my boots.

Thump! I rolled in a wet bed of mown hay. Time to collapse the billowing canopy and not get dragged in a cold breeze. Ahead, lay a long walk for this baby boom Cold War veteran, rucking out 50 pounds of gear. The evening was wet like D-Day, but so much easier, in the absence of Nazi troops trying to kill you coming down in darkness and anti-aircraft cannon fire.

We walked into the village of Saint Germain-de-Varreville to toast our jump, and our heritage of authentic Airborne heroes of D-Day and beyond.

At chapels in Normandy, American paratroopers are etched into stained-glass windows like angels, and the blood from their wounded and dying of nearly 80 years ago are permanently stained into the pews.

William Faulkner observed that in the South, “the past isn’t dead.” He continued, “it isn’t even past.” It’s like that in the region that survived the Nazi Occupation that began in 1940 and lasted four very hard years. The Third Reich’s reign of terror began to end with the descent of 13,000 American paratroopers, joined by more than 6,000 British and Allied parachutists in the pre-dawn hours of Operation Overlord.

On the 78th Anniversary of D-Day, members of my non-profit group, the Liberty Jump Team, filed through the ancient church that 101st Airborne Division medics Robert Wright and Ken Moore transformed into an aid station while fierce fighting raged around them. We gazed, transfixed at the bloodstained pew, preserved



Courtesy photograph

Our author, along with other Legacy Jump members, in the C-47 Skytrain taking them to the D-Day landing zones.

like a holy relic from the medieval church at Angoville Au Plain.

“They treated wounded Germans the same as they treated wounded Americans,” remarked my buddy Bob Jimenez, a veteran of the 82nd Airborne Division from the 1980s. “It was awesome what they did.”

We were making a paratrooper pilgrimage across Normandy, dropping in by parachute on Drop Zone after Drop Zone that figured in the Liberation of France in 1944. Marines have their icons, the flag raising at Iwo Jima, and siege of Khe Sanh. For airborne veterans, Normandy is our sacred ground. And we welcome others who embrace it.

Town after town we jumped at, we were greeted by the mayor, and French welcoming committees. On the 78th anniversary of D-Day, a week-long celebration, we gathered for photographs, and embraces from crowds, meeting great-grand and grandparents, shaking hands with children and parents. We were not in a tour group.

“We are not re-enactors,” my friend, retired Army Col. Stuart Watkins said. “We don’t re-enact. We jump. There’s a big difference.”

For veterans of military parachute missions, the World War II nostalgia-clad uniformed re-

enactors that sweep Normandy during D-Day remembrance festivities are decorative, not operational. Our acts of remembrance, parachutes descending, remind people on the ground of the valor of thousands of troops whose task was to drive out and defeat Adolf Hitler’s Third Reich.

Our team is made up of Green Berets, retired and active, Rangers, veterans of airborne units. Some of our parachutists, like the Allies of World War II, hail from Britain, Canada and the Netherlands.

Watkins, a retired paratrooper and Ranger who awarded the Silver Star in Vietnam, was correct. Jumping is not re-enacting. It demands real-world mission planning and restored military aircraft like the venerable C-47 Skytrain transport, the kind depicted in the “Band of Brothers” epic miniseries.

Our journey across Normandy, arriving on multiple Drop Zones marked for landings on D-Day, began a few days before the 78th anniversary of the largest seaborne assault in history, and begun by what was the largest airborne operation ever with the paratroopers and glider forces of the 101st Airborne, the 82nd Airborne,

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McBride retires as longest serving Armstrong director

by Jay Levine
NASA Armstrong

When David McBride first came to NASA's remote outpost in the Mojave Desert in 1982 as a cooperative education student, he didn't imagine becoming its center director.

"I was expecting to be here for one semester, but right away I was captivated by the work and more importantly the people who do the work," McBride said. "It kept me interested and excited over the last 40 years of seeing the progress, the technology, and some cool airplanes."

His NASA journey concluded when he retired June 30, 2022, as the longest serving center director at NASA's Armstrong Flight Research Center in Edwards, Calif.

McBride returned to the center for two more internships as he completed his degrees, worked in industry, and returned to the center to continue a career trajectory that led to the top. He was lead systems engineer on the on the X-29 Advanced Technology Demonstrator, which featured forward swept wings, the X-31 Enhanced Fighter Mobility Demonstrator, and the F/A-18 Systems Research Aircraft.

He then advanced on the adminis-

trative side of the center's operations to positions including deputy center director, and director for Programs and Projects, deputy director, acting center director. And for nearly 14 years, he served as center director. He also led a team that shaped many of today's Aeronautics Research Mission Directorate projects as program manager for NASA's Flight Research Program.

The secret to his success?

"Having a great team to help carry the load," he said.

In fact, McBride offered that as key advice to his successor.

"Don't try to do it all by yourself," he said. "Use your team, depend on your team. When I first came into senior management, I worked to set expectations and create a leadership team of people who are now on the same page and sincerely want to work together."

Another pillar of success is taking a realistic approach to what can be accomplished with available resources.

"We have challenges with big, important and complex programs, like the supersonic X-59," McBride said. "We just have to be practical about what we can do, influence, and schedule, especially when something challenging is discovered."



NASA image

This 1990s image captured from a video produced when NASA Armstrong's Bldg. 4840 was opened. David McBride (standing) assists Michael Thomson with an aircraft simulator.



NASA photograph by Joshua Fisher

NASA Administrator Bill Nelson shows a picture of the X-3 to NASA Armstrong Center Director David McBride on Oct. 13, 2021, when the center's time capsule, sealed 25 years prior, was opened.

It's not uncommon with flight research projects for something not to go as planned.

"We are working in a research environment where we are doing things for the very first time," he added. "We always have, and we always will, uncover the unknown. Sometimes that causes slips in schedules and increases in budget because we didn't expect something to work — or not work — as intended."

He also said the NASA Armstrong's flight research processes and procedures are world class.

"We can't operate without risk, but we do a good job managing it to get results," McBride said.

That approach will be important to NASA Armstrong to continue progress on the critical work ahead. In addition to the center's science platform aircraft, like the ER-2, DC-8, and C-20A, that assist in the study of the environment, the technology development efforts and test flights here could help mitigate future carbon emissions, he said.

"That is one of our biggest goals is to help make air transportation more efficient, which means it will burn less fuel and reduce carbon emissions in the atmosphere," he said. "I think we have a big role to play in moving aircraft technology to the next level so that we have the ability to make that next generation transport aircraft more efficient."



NASA photograph by Cam Martin

NASA Armstrong Center Director David McBride shows Jaiwon Shin, then Aeronautics Research Mission Directorate (ARMD) associate administrator and Bob Pearce, then ARMD director for strategy, architecture and analysis, the X-48 Blended Wing Body Aircraft.

Further out in the future, McBride said he wants to see the agency and nation return to hypersonic access to space that could be incorporated into an eventual spacecraft that can take off like an aircraft to reach orbit.

"Commercial providers that are using rockets that take off vertically have proven efficiency with that launch capability," he said. "However, I believe ultimately the most efficient and cost-effective way to get

people and materials to orbit is with a horizontal takeoff vehicle."

McBride is not certain what his future holds, he does know what makes the center special and where its future is going.

"The best part of the center isn't the airplanes and technology development, it's the people who get the job done," McBride said. "I also am very proud of the next generation, who are positive, proactive, and out to solve challenges in a new way."

VIRGIN, from 1

Straight Up achieved an orbit that no other launch system has reached from the West Coast, according to the company. The target orbit was about 310 miles above the Earth's surface at a 45-degree inclination. The company also achieved this orbit on the Above the Clouds mission in January.

The launch was livestreamed in a program with interviews with mission participants, videos of Branson in a tropical place (possibly Necker Island) answering children's questions about satellites, and a video of singer Paula Abdul at the Mojave Air and Space Port, touring the Cosmic Girl and sitting in the cockpit. The livestream interface had a sign language interpreter.

"It's great to be back up in Mojave," said Dan Hart, CEO of Virgin Orbit. "We are honored to be supporting and delivering for

the U.S. Space Force and the U.S. Dept of Defense at such a critical juncture for national security space, our nation, and the world."

To accommodate the technology necessary, the passenger seats have been removed from the former airliner in all but the lounge area, which was turned into the mobile Mission Control Center. The control center was where the two launch engineers sat during the mission, Sarah Barnes and Dayle Alexander.

Both flight crew members also have other roles at Virgin Orbit. Barnes, senior launch engineer, has been at Virgin Orbit for three years developing Mission Rules, nominal countdown/emergency procedures, and safety/mission assurance risk identification and mitigation, according to Virgin Orbit's LinkedIn.

Alexander has been with the company since 2018 as propul-

sion development engineer. She was responsible for engineering multiple components on LauncherOne, including the design and analysis of the second stage engine Newton 4.

Bryan Schaefer, launch director, has been with Virgin Orbit almost seven years, with 50-plus CosmicGirl flight hours and 50-plus flight test hours.

This was the fourth commercial launch for Virgin Orbit.

Straight Up is named for Abdul's 1988 hit record on the Virgin Records label. Previous mission Above the Clouds is named for a 1998 Gang Starr song featuring Inspectah Deck of Wu-Tang Clan, and the Tubular Bells mission by Mike Oldfield's 1973 album, which was Virgin Record's first release.

Orange Flag executes largest all-domain test focused on infrared spectrum



Air Force photograph by Giancarlo Casem

An F-35 Lightning II assigned to the 461st Flight Test Squadron takes off from Edwards Air Force Base, Calif., May 20, 2022. Sixteen airborne fighters and one testbed acted as either sensors or fifth-gen targets to characterize the DOD's state-of-the-art infrared kill chain performance, and continue developmental work in the infrared spectrum for both offensive and defensive capabilities during Orange Flag 22-2 June 23, 2022.

by 1st Lt. Christine Del Aguila
Edwards AFB, Calif.

Orange Flag, the Air Force Test Center's all-domain, large force test series focused on advanced technology, kill-web integration and analysis, returned for its second iteration this year at Edwards Air Force Base, Calif., June 23, 2022.

Forty-one airborne participants used the R-2508 Range and Sea Test Range to execute simultaneous participant objectives, comprising 23 separate test events.

AFTC's Multi-Domain Test Force is leading the effort to resource, organize, and align the Test Flag Enterprise, to include Orange Flag, Emerald Flag, and Black Flag.

"It was perhaps the most complex Orange Flag ever, because we executed in two separate ranges comprising around 30,000 square nautical miles of airspace," said Maj. Daniel Harp, Orange Flag director. "The team did an outstanding job despite having a com-

plex experimental design, extremely limited resources, and no formal institutional manning."

The U.S. Air Force, U.S. Navy, U.S. Marine Corps, U.S. Space Force and multiple civilian Research and Development agencies participated. Every fighter mission design series in the Air Force also participated, to include all three variants of the F-35.

"Orange Flag's significance goes well beyond meeting single platform requirements," said Maj. Joshua Rountree, Orange Flag mission commander, and director of operations, Emerging Technologies Combined Test Force. "During this event we were able to provide mature platforms environments in which to experiment, provide burgeoning technologies the opportunity to test with fielded joint and multi-domain capabilities they normally have limited access to, as well as meet traditional programmatic test requirements. All in a single day event."

Sixteen airborne fighters and one testbed acted as either sensors or fifth-

gen targets to characterize the DOD's state-of-the-art infrared kill chain performance, and continue developmental work in the infrared spectrum for both offensive and defensive capabilities.

"Orange Flag also continues to focus on maturing autonomy and machine learning," said Harp, an F-35 test pilot. "Machine learning has progressed to the point where we can train algorithms to perform very specific tasks that humans might be particularly bad at. By facilitating hu-

man decisions, these types of narrow Artificial Intelligence may be able to shorten the kill chain or expedite decision-making."

The test event supported data collection for a Small Business Innovation Research contract aiming to develop a natural language processing model and automatic speech recognition for tactical aviation communication.

"Development of this type of narrow AI will facilitate future manned-unmanned teaming efforts in the

DOD," said Harp.

Orange Flag 22-2 team leads included Maj. Joshua Rountree, Orange Flag Mission Commander, Maj. Kyle McLeod, deputy Mission Commander, Capt. Joshua Rivey, Test conductor and Maj. Brian Dienst, senior technical adviser.

Orange Flag 22-3 is scheduled to occur in October of 2022 and will focus on joint, all-domain kill webs.

For more information on Orange Flag visit <https://www.aftc.af.mil/Test-Flag-Enterprise/Orange-Flag/>



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Aviation Commission:

Turbulence hits new management route

by Larry Grooms
special to Aerotech News

One day short of a year since the Department of Public Works began the takeover in operation of five county-owned airports from a private contractor, the oversight commission for the Board of Supervisors got a progress report and an uncertain vision of what's ahead.

Paul Maselbas, assistant deputy director of the Aviation Division of the L.A. County Department of Public Works, delivered a comprehensive but not yet completed statistical report covering the less than full year period in which the county department and former contractor were in various stages of transition, including office management, mixed personnel and staffing assignments, fueling operations and general maintenance, among others.

In response to questions from Airports Commission Chairman Curt Castagna, Maselbas said the actual turnover didn't officially occur until Aug. 20-21, and even now some financial negotiations remain under way with contractor American Airports.

Revenue Projections shown considering an Operating Surplus/Deficit line

items chart appear to suggest county assumptions about achieving savings by bringing full management inhouse overestimated.

In the matter of fueling operations, commissioners heard that since taking over from the contractor, county airports are losing money every month, while trying to sell avgas for less. DPW hourly labor costs were cited as one cause of the imbalance in fuels pricing and service, as was the fact the county had to rent fuel trucks for some airports when the contractor departed.

In the closing public comments segment of the virtual meeting, one caller told the commission the price of avgas is \$1 a gallon cheaper at airports outside of Los Angeles County. He cited Chino Airport as an example.

Monthly airports operations and fuel sales reports from Division Assistant Chief Jason Morgan showed fuel sales at all five county airports were up 10 percent in May from the same period a year ago, and takeoffs and landings at the four airports with control towers to record the data were also up 10 percent year over year.

Maselbas said the long-term concern for the airports system is what could happen if the county airports system's

deficit trend isn't reversed over the coming decade. Some steps are already under way or are expected to be soon, including more attention to remov-

ing non-aviation users from hangars, evicting non-operative or abandoned aircraft from hangar storage, updating rates and fees surveys and outsourcing

fueling services.

The Commission doesn't meet in July. Its next meeting will be held Aug. 31.



The General William J. Fox Airfield in Lancaster, Calif., is one of five airports owned by Los Angeles County.

Courtesy photograph



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and the British 6th Airborne divisions.

Unlike the D-Day troops, we staged not from England, but the airport at Cherbourg, a city on the strategic objective lists of Operation Overlord.

After safety checks, drills, and hours of waiting on weather, a few days into June 2022, we boarded our aircraft, "Pegasus," and within minutes we were shooting over and past Utah Beach. Then, it was time.

"Stand in the door! Go!" retired Lt. Col. Dennis Harrison, our jumpmaster, called out as we tucked our elbows in and vaulted into the blue above the green checkerboard landscape. No one hesitated.

"No one comes to Normandy to refuse the door," Harrison observed, with a grin. And we laughed. No one in our number would refuse the door. Not even me, and there were times I was scared enough.

Humor helps. A Velcro patch on the helmet of the jumper in front of me declared, "Stop Screaming! I'm Scared Too!" That Russ Battiatto, a 101st Airborne veteran from the 1970s, what a joker.

I was last in "the stick" line-up of parachutists exiting the plane. And I was relieved and happy my canopy was descending at a good rate.

Our designated Drop Zone was "Alpha," near the town of Saint Germain-de-Varreville where the "Screaming Eagles" team of specially trained Pathfinders dropped in hours ahead of the main force to prepare drop zones for the arriving paratroopers with lights and radio beacons.

Before D-Day, the Nazis flooded swaths of the Norman landscape to drown paratroopers and mire troops coming off the beaches, and they fortified local bridges to keep the Allies bottled up. Weather, then as now, was not reliable. I smelled rain before I hit the ground, which came up fast, and squish!

"Are you OK?!" The voice was Rick Hersey, a Canadian. "Watch out for the ditch! It's just the other side of the rise!"

Rick climbed from the ditch as I started bundling my chute, heart going like a trip hammer. Rain drops started pelting. With canopy stuffed into a canvas bag on my back, it was a matter of floundering across the wet field. How did D-Day paratroopers manage it in the dark, with or without weapons many of which scattered in the drop? They managed. Many were killed or wounded but they fought like hell.

As Eisenhower put it 20 years later, "The paratroopers created chaos, because none of the Germans knew where they were, and they were everywhere."

The paratroopers, whose stories are recounted in films and books like "Band of Brothers," "Saving Private Ryan," and "The Longest Day" were scattered across Normandy because of thick fog and dense anti-aircraft fire that sent some of the C-47s plummeting to Earth in fiery explosions. Most got through.

Young men who trained to jump and fight together formed up in twos, threes, finally companies and battalions and wreaked havoc behind Nazi lines, securing hard fought ground for



Courtesy photograph

Dennis Anderson comes in for a landing at the 101st Airborne Drop Zone.

troops coming from the beaches.

In the rainy dusk 78 years later, an elderly French couple in a camper van offered me a ride, and I eagerly accepted. They easily could have been children at Liberation. The French people we met in 2022 were uniformly warm, and welcoming.

In the ancient, gabled town of Saint Germain de Varreville, we toasted with beer and cider provided by the community's "celebration committee," and Pathfinder Club. The mayor, and Army Reserve Brig. Gen. Dean Thompson, a paratrooper from U.S. Special Operations Command, formed us up. Together, they presented certificates in French stating that we jumped at "Drop Zone One, in the steps of the Pathfinders," those storied paratroopers of World War II.

"The weather is similar to what it was on June 6, 1944," Thompson said. "You're to be congratulated for maintaining the traditions of the airborne."

The jump, and the celebration that followed, flowed in part, from the organization skills of Jil and Dom Launay, founders of Liberty Jump Team, a non-profit that preserves the 82-year heritage of the Airborne. The first U.S. paratroopers formed up at Fort Benning, Ga., in 1940, little more than a year before America's entry into

World War II.

Liberty's membership embraces paratroopers, veterans and active, and first responders and law enforcement, men, and women. Team members are Post 9/11 veterans, Cold War, Desert Storm and Vietnam War vets who stay in shape and train hard, with focus, to "keep their knees in the breeze." A few hardy civilians, veteran family members and history enthusiasts are welcome, if they complete rigorous training.

"This isn't paratrooper fantasy camp," the group's senior Jumpmaster, Vietnam veteran Butch Garner, states. "We teach the military method of exiting from an aircraft, and landing safely, because it works."

In our "Week of D-Day 78th Anniversary Remembrance," team members would perform military parachute operations for audiences with thousands gathered at a variety of the drop zones where the 101st and 82nd Airborne divisions dropped in the pre-dawn hours of D-Day. They held up through days of fighting before meeting up with troops from the beaches, Americans, British, Canadian and French.

"Have you been to the cemetery at Omaha Beach?" 82nd Airborne vet Jimenez asked. "Doesn't it make you

wonder? All the young men whose lives ended there, men who could have raised families of their own. Someone might have had the cure for cancer. Doesn't it make you wonder?"

We did wonder, while we waited for fog to clear from our staging airfield for our second scheduled jump. We waited on June 5, 2022, like they did for D-Day, originally set for June 5, 1944. Meanwhile, our spouses waited in the cold and rain in a field called La Fiere about 40 miles southwest. They waited with thousands who gathered to watch C-47s drop veterans, and C-130 Hercules from active 82nd Airborne.

The eve of D-Day 78th the crowd gathered where 82nd Airborne fought an epic three-day battle of lightly armed paratroopers against Nazi tanks. The paratroopers held the bridge, and blocked the tanks from overwhelming arriving Allied infantry with bazookas and small arms. The order was, "We hold here. No better place to die."

On our day in 2022 our Green Beret jumpmaster described our drop zone. "There's a small river that divides the drop zone," Lt. Col. Harrison said in his pre-jump briefing. "I want you to avoid that river."

The fog lifted in Cherbourg, and the clouds parted over La Fiere and the smallish Merderet River. We boarded our semi-ancient Pegasus.

"We are on our way," my friend Col. Watkins said, and with a roar we were airborne. It seemed like no time at all passed, and Harrison shouted, "Get ready!"

"Stand in the door!" Harrison called. "Go!"

Knees in the breeze, face in the wind, I saw blue sky as my chute popped open. I looked down and saw the small river. The view triggers a wave of exhilaration. A giant Dayglo "A" panel marked the drop zone. It looked like my boots were headed straight for it, and my canopy set me down gently, then plop! Turns out I did not hit any in the Air Force ground camera crew. The wind gusted and I was dragged until I pulled a quick release, deflating my chute.

"Welcome to Normandy," our team founder, Jil Launay, said.

Lacey Carroll, a Drop Zone Safety Officer and teammate greeted me. "Winds are tricky today," she said.

I watched one jumpmaster, Col. Jon Ring, run off the drop zone with his 50-pound chute on his shoulders. The rest of us walked. Our spouses, Julia Claire, Katie Watkins, and Patt Macias Jimenez, logged us in safe and accounted on their clip board lists. We walked in to be greeted by applause from hundreds of parents and their children.

"We came to honor your jump," Normandy resident Jerome Dupouvoir, a team friend, said, bringing his wife, and three growing children kitted out as paratroopers in maroon berets.

Children walked up hopefully, saying, "Avez vous badge?" French, for "Have you a badge?"

Luckily, I had stuffed my pockets, and handed out patches from my old unit like Cracker Jack prizes, along

with candy bars. The children's smiles made me tear up. Kids, and some of the wonderful women of Normandy, stepped up to pose us with them for "selfies." It occurred to me that our homage to our airborne brothers held meaning for these people, even nearly 80 years later.

After we jumped, many gathered at the "Iron Mike" statue at La Fiere Manor, dedicated to the American paratrooper. Joining French dignitaries were Gen. Mark Milley, Chairman of the Joint Chiefs, and Maj. Gen. Christopher C. LaNeve, commanding general, 82nd Airborne Division. Like a paratrooper, LaNeve sprinted to the lectern to share the "All American" division's story, while the 82nd Airborne band played the Star Spangled Banner, and a French military band played "La Marseilles," the anthem of France.

"We stand here in remembrance of this historic battle and to honor those who took their last breath on this hallowed ground," LaNeve said. "Paratroopers of our past, present, and future continue to stand in the breach between darkness and light."

"Seventy-eight years ago, paratroopers in a defining moment for their division, their country, for the Alliance, stood shoulder to shoulder with the people of France against oppression in Europe, and your paratroopers are ready to do it again if asked," LaNeve said, noting that the 82nd Airborne paratroopers were ready at Fort Bragg, and ready in Poland just west of the war raging at NATO's border with Ukraine.

The general's words underscored why our team of came to Normandy, 78 years later, to honor those who gave so much, and lived, fought, and died with the creed, "Airborne! All The Way!"

Editor's Note: The author is an Antelope Valley journalist of 30 years reporting locally who served as a paratrooper in the Cold War and embedded combat correspondent in Iraq. He trained with his non-profit, Liberty Jump Team, to parachute onto Normandy drop zones for the 78th anniversary of D-Day.



Courtesy photograph

"Avez vous badge?"

On this date...



July 9, 1965: The tilt-wing XC-142A vertical/short takeoff and landing aircraft arrived at Edwards Air Force Base, Calif., for Category II testing following a two-day flight from the Ling-Temco-Vought plant in Dallas, Texas. The flight was the first long distance hop of a V/STOL aircraft. The XC-142A was an experimental four-engine propeller transport in which the engines and wings tilted in flight to transition between vertical and horizontal flight.

July 11, 1955: The U.S. Air Force Academy is dedicated at its temporary location, Lowry Air Force Base, Colo. The first class of 306 cadets are sworn in at Lowry, and were housed in renovated World War II barracks until construction at the Colorado Springs location was complete in August 1958.



July 12, 1966: The Northrop M2-F2 heavyweight lifting body made its first flight at NASA's Dryden (now Armstrong) Flight Research Facility at Edwards, Calif., with test pilot Milt Thompson. The same B-52 used to air launch the famed X-15 rocket research aircraft was modified to also carry the lifting bodies. Thompson was dropped from the B-52's wing pylon mount at an altitude of 45,000 feet on that maiden glide flight. The M2-F2 weighed 4,620 pounds, was 22 feet long, and had a width of about 10 feet.



July 12, 1988: The Scaled Composites Triumph made its first flight at the Mojave Airport. The Triumph was a U.S. twin-engine, business jet prototype designed and built by Burt Rutan's Scaled Composites for Beechcraft.



July 12, 1997: A Northrop Grumman crew launched a BQM-74 Chukar RPM from South Base at Edwards Air Force Base, Calif., to test its new JATO unit. The jet propelled drone was designed as a high-speed aerial target, and had also been used as a decoy over hostile territory.



July 14, 1954: The McDonnell XV-1 made its first flight. The XV-1 was an experimental gyrodyne developed by McDonnell Aircraft for a joint research program between the U.S. Air Force and the U.S. Army to explore technologies to develop an aircraft that could take off and land like a helicopter but fly at faster airspeeds, similar to a conventional airplane.

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The YB-49 flying wing on a 'corner in Winslow, Arizona'

by Bob Alvis
special to Aerotech News

As I was checking into the La Posada hotel in Winslow, Ariz., little did I know that history of flight test in aviation was already there waiting for me. I now uncover the part it played at a small airfield, a steppingstone for many greats from the early years of aviation.

As my wife and I carried our bags to the room, I paused to see photos of all those who had stayed here many years ago and I commented on how many of them had connections to our Antelope Valley. As we settled in, we realized we were in the presence of the spirits that we constantly talk about while retelling Antelope Valley history.

But one story that these walls were keeping secret would soon come to life when a chance sighting of an old photo had me thinking about an old friend, the late Bob Cardenas, and the stories he shared about the early days of the YB-49 flying wing test program and his historic speed run to Washington, D.C., and a famous picture of him flying the wing down Pennsylvania Avenue.

There on the wall, in the hotel's hall was a picture at the Lindenberg/Winslow Airport and a YB-49 sitting on the ramp with some people milling about. My mind started to reboot a bit and I remembered an aspect of that famous trip to Washington and back to Muroc, that had some drama to it, and here I was visiting the location where flyover country became center stage to the occurrences that took place on Feb. 9, 1949. As luck would have it, the crew of that flight and Bob would end up spending some nights at this hotel until the plane was fixed and ready to depart.

The very first YB-49 flew from Muroc Air Force Base in California to Andrews Air Force Base near Washington, D.C., in four hours, 25 minutes to establish a coast-to-coast speed record after which President Truman ordered a flyby over Pennsylvania Avenue at rooftop level to send a message showing the taxpayers what the government was thinking of spending its money on.

The return flight from Andrews was not to be without controversy when four of the eight engines had to be shut down due to oil starvation. It appeared that at its stop at Wright field on the return trip, the oil was never checked, or there was a more sinister act in play. Inspection after a successful emergency landing at Winslow Airport, Ariz., revealed no oil had been replaced in these engines at Wright after the Muroc-to-Andrew's leg, raising a suspicion of industrial sabotage.

On their way home with a faltering aircraft, when they reached Durango, Colo., it was decided that the best location for an emergency landing would be at the Winslow Airport, as it had the longest and flattest approaches with a more than adequate runway for roll out. The small Winslow community, used to the traffic generated by their presence on the famous Route 66, was about to get a visit from a Cold War warrior that would have the highway playing second fiddle in the minds of many people in that region.

With a successful landing, the crowds began to appear and with little or no military presence at the field it fell to the small local Civil Air detachment to deal with the security until the feds showed up! The wing drew crowds from all over the region and as the plane waited for replacement engines to arrive from California, it became a must-see event much to the dislike of the Department of Defense.

Funny that even the local newspaper, the Winslow Mail, detailed the arrival and installation of the new engines in detail and promoted the spectacle as a public attraction! Hundreds of people came to see the unique plane. Then the day came, on March 2, and hundreds came to the airport to watch the amazing site. Now, back in 1949 it was not a very common sight for the people of a remote town in Northern Arizona, and they eagerly watched as the futuristic flying wing took to the air on its way home.

During our stay, of course, we had to make a



Courtesy photograph

A rare photo showing the YB-49 flying wing being towed at Winslow/Linberg airport.

trip out to the famous old airstrip. After all, I'm Bob and that's just what I do when in search of a cool story and a history walk in vanished footsteps from years ago.

Out at the field, as the wind whistled

thought back and wondered what that crew ordered up to drink as Bob Cardenas and his band of misplaced airmen wondered how long they would be singing the blues at an airport in



Courtesy photograph

The YB-49 Flying Wing flies over the U.S. Capital in Washington, D.C.

around that old 1930s hanger, I was thinking of the activity in this one lone structure, that for about a month was home for a bunch of Northrop folks and all the equipment that had to be flown in to change out four engines on a YB-49.

Sitting in the old La Posada hotel bar, I

a town that years later would become famous for the line in an Eagles song. What did they think, as they stood "on a corner in Winslow, Arizona," waiting for four Allison J35-A-15 turbojet engines to show up, maybe even on a "flatbed Ford."

Until next time Bob out ...



Courtesy photograph

The Northrop YB-49 Flying Wing flies a test mission.



Courtesy photograph

The crew for the record breaking YB-49 flight and the ill-fated return trip plagued with mechanical issues. Celebrating a record-breaking flight in February 1949, the gang poses for the photographer at Andrews AFB outside Washington, D.C. On the far right is Sgt. William Cunningham, the YB-49's flight engineer, whom a Northrop executive would defame as a saboteur. Beside him is Northrop test pilot Max Stanley, copilot on the flight from Muroc to Andrews. Third from right is Maj. Robert Cardenas, the aircraft commander.

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Craig, where Memorial Regional Health serves a community that includes a county, but which is concentrated in this little city, is the kind of destination toward which most folks who come here never realized they'd been journeying their whole lives. Between the protective cover of the sand rock ridge that runs along the north side of the community and the coal-fired power plant to the south - both of which are visible from almost any point in town - sits a city in a valley built on electric power and sustained by human power.

Here atop one of the several hills headed out of town, lives Memorial Regional Health. Keeping a watchful eye over the community it serves, MRH, among the city's largest single employers, has sought to fulfill the responsibility and hoist the burden placed on it's broad shoulders to improve the lives of that community. Within these walls is a family that's coalesced around that critical mission with the humbling understanding that, in so many ways, without us, this community would surely fall critically ill.

Single digit miles from some of the country's grandest free, accessible wilderness, a few more from world-class skiing, and closer than you'd think to the amenities provided by the sizes of cities those who escape to Craig are largely looking to leave behind, it's hard to fully comprehend the three-fold satisfaction by this locale of the old real estate motto: Location, location, location.

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Business & Professional Code Section 21700-21707

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

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|-----|----------------|
| 572 | Baker, Michael |
| 149 | Finley, Tyson |
| 257 | Ordonez, Frank |
| 95 | Cook, Katie |

Date: June 27th, 2022 Signed NOVA STORAGE

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Auctioneer: Nova Storage

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| | |
|------|------------------|
| C117 | Matney, Jason |
| E467 | Hines, Yvonne |
| B064 | Sharp, Debra |
| E381 | Snowden, Natasha |

Date: June 27th, 2022 Signed NOVA STORAGE

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