

Aviation Museum restoration team puts final touches on 70-year-old aircraft

Together Drew Mansueto and his team of restoration volunteers clock thousands of labor hours constructing, shaping, assembling, welding, sanding, priming and painting aircraft.

Mansueto, of King of Prussia, is a senior fabricator for the Harold F. Pitcairn Wings of Freedom Aviation Museum and has been contributing to the restoration of various aircraft on display there since early 2019.



"If it was a job, I wouldn't be here," Mansueto said. "I enjoy what I'm doing."

On a recent morning, Mansueto and a half dozen volunteers continued restoring the F-8 Crusader. Crouching atop one of the plane's wings, Mansueto meticulously filled in tiny holes, while Tom Rimm, of Jamison, who worked in aviation maintenance for 48 years, applied tape around windows for painting prep.

Mansueto estimates that volunteers have donated at least 1,000 man hours since the team first began restoring the aircraft in June 2024. He anticipates its completion this summer.

“The colors have to be right. The spacing of the letters has to be right,” Mansueto said, referring to several blueprints that have guided the effort. “We try to have the insignias and the letters as close to the standards as we can.”

A labor of love, Mansueto and the restoration crew – which numbers to 18 depending on the day – meet in the hangar situated behind the Horsham-based museum to bring the aircraft back to its glory days.

F-8 history

A U.S. Navy and Marine Corps Fighter, the F-8 Crusader was used from 1957 through 1977. The one-pilot plane traveled at a maximum speed of 1,120 miles per hour at 40,000 feet. Its wingspan of 35 feet, two inches, length of 54 feet, six inches and height of 15 feet, nine inches means painting will take at least two full eight-hour days as compared to other aircraft, which were painted in a day.

The aircraft was delivered to the Navy at the since-closed Naval Air Station Joint Reserve Base Willow Grove in December 1957. The aircraft flew a total of 2,786 hours prior to being retired and placed on permanent display at the base, which was located adjacent to the museum.

Cost of restoration

Most of the aircraft displayed at the museum are on loan from the government, which tasks the museum and the all-volunteer nonprofit organization that oversee it, with maintaining and restoring the planes.

Lee Wintz, aircraft restoration manager, estimated that the F-8 project has cost \$10,000 in supplies.

“It’s not a cheap hobby,” said Wintz, of Upper Moreland, who has been volunteering with the museum for more than a decade.

The team began restoring the F-8 while simultaneously working on the Marine One helicopter, which was finished last fall after upwards of 5,000 man hours and thousands of dollars in materials costs.

Bruno Cavallo has been volunteering long enough to see the restoration team rebuild the F-8 a second time. Cavallo, 89, said subpar paint allowed moisture to seep in, which caused it to rust from the inside out.

A former aeronautical engineer with the Navy, Cavallo enjoys the “camaraderie” with fellow volunteers.

“We have to be creative in some of the things we do,” Cavallo said. “We have to strip down and rebuild parts from scratch.”

While it’s true that many hands make light work, the restoration team must be selective about who can assist. Ideally, volunteers would have “a knack” for working on cars, sheet metal, or aircraft. If someone has the desire to volunteer on a continuing basis, and has some basic skills, the museum welcomes them to learn from skilled restoration volunteers.

Wintz, who grew up in a construction family, got started by first hanging around, staying out of volunteers’ ways, and watching. From there, he began hand-painting the aircraft.

Vietnam veteran Nick Weremeychik, of Warrington, has been volunteering for almost 20 years. A former Army crew chief, Weremeychik has expertise doing “everything.”

“It’s always different,” he said. “You don’t get bored here.”

Get involved

Volunteers are welcome to serve in a variety of roles at the Harold F. Pitcairn Wings of Freedom Aviation Museum. If interested in getting involved, please email museummanager@wofmuseum.org. Memberships and donations are always welcome. Learn more: <https://wingsoffreedommuseum.org/join-us/>.

About Harold F. Pitcairn Wings of Freedom Aviation Museum

The Harold F. Pitcairn Wings of Freedom Aviation Museum is operated by the Delaware Valley Historical Aircraft Association, a nonprofit organization focused on preserving the aviation history of the greater Delaware Valley. The museum, which opened in 2004, houses aircraft spanning various eras in the history of aviation: World War I through World War II, The Korean War, The Vietnam War, The Cold War Era, The Gulf War, The Balkan War, The Iraq War, and the War in Afghanistan. The museum is open Saturdays and Sundays from 10:30 a.m. to 4 p.m.; and Wednesdays-Fridays from 10:30 a.m. to 3 p.m. The museum is available for group day trips, scout troop visits, and birthday parties. Guests may use the pavilion for lunch or birthday celebrations. For admission pricing and other information, please visit <https://wingsoffreedommuseum.org/> or call 215-672-2277.