Fleet Readiness Center Southeast Establishes New T-45 Repair Capability

JACKSONVILLE, Fla. (March 27, 2025) Kristopher Williams (left) and Jeffrey Zumwalde, sheet metal mechanics at Fleet Readiness Center Southeast, perform service life extension program upgrades on a T-45 Goshawk wing. The T-45 jet aircraft is used for intermediate and advanced portions of the Navy/Marine Corps pilot training program. (U.S. Navy photo by Toiete Jackson)
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JACKSONVILLE, Fla. – In November 2024, Fleet Readiness Center Southeast (FRCSE) stood up repair capability for a T-45 Goshawk service life extension program (SLEP) production line supporting the Naval Undergraduate Flight Training Systems Program Office (PMA-273).

FRCSE expects the first SLEP wing swap and full aircraft SLEP in June 2025, only 13 months after the Navy identified the requirement in May 2024. Usually, this process takes upward of

two years.

Currently, the command has one fuselage and three wings on deck, with each wing SLEP expected to take 4,000 working hours and each fuselage to take 24,000. The command expects to ramp up to work on 12 aircraft simultaneously by 2028 and the work to continue through the 2030s.

“The point of the service life extension program is to extend the flyable hours on the T-45 aircraft,” said Jeff Cavanaugh, FRCSE’s F-5 production line lead. “Right now, those hours are being reached at a faster rate than anticipated. The Goshawk is important because pilots receive their carrier qualification on this airframe, which must be completed before a pilot can fly any other carrier-capable fighter.”

PMA-273 called on the command for this workload because of its proven track record establishing rapid repair capability to deliver warfighting readiness. Since the Goshawk is the primary Navy and Marine Corps tandem-seat jet trainer, the tasking came with urgency.

After getting the initial call for the new work, the FRCSE team immediately began preparation, but the process presented challenges including aircraft movement, tooling and equipment obstacles.

“Fortunately, we had access to a stricken aircraft that we were permitted to use as a mock for proposed engineering repairs,” said James Bock, an FRCSE business development office structural and mechanical component lead. “However, we needed to make the aircraft mobile to transport it on public roads to our facility, which involved many logistical challenges. It was vital because having the fuselage onsite allowed us to create shoring that made concurrent work possible.”

Further, FRCSE artisans use standard customary units for their tooling, but the T-45 was built using metric measurements.

“Outside of moving the aircraft from Cecil Field, the first challenge was identifying the type of tooling we needed,” said Cavanaugh. “We’ve created metric kits to use while we build up our comprehensive toolboxes.”

Understanding the challenges, tight timeline and complexity of the SLEP tasking, the team realized it was necessary to divide the initial depot capability (IDC) into phases.

“To provide the most positive impact back to the fleet, we came up with an incremental approach,” said Bock. “During phase one, or IDC, we trucked in three wings and performed SLEP on all three to get ahead of the process. With a backlog of wings, it’s easier to transition to IDC phase two, which allows aircraft to fly into FRCSE and swap their wings with ones that have already undergone SLEP. Finally, we have full depot capability, where we will see aircraft getting the full scope of SLEP work.”

To perform the majority of the work on the T-45 wing, the command had to obtain a flip jig—a piece of equipment that allows the artisans to work on the wing’s underside. The jig turns over, or flips, the approximately 2,000-pound wing so that artisans can conduct the repairs safely and ergonomically. After the jig was acquired, personnel underwent training and certification to effectively and safely operate it.

“The majority of the work on the wing is done on the bottom, so being able to acquire the flip jig, or the device we use to flip the wing, was vital so that artisans don’t have to conduct this work over their heads or upside-down,” said Cavanaugh.

“Our T-45 team’s ability to urgently answer the Navy’s call without compromising quality is a testament to their commitment and expertise,” said Capt. Mike Windom, FRCSE commanding officer. “This accomplishment highlights not only

their resolve, but also FRCSE’s commitment to getting capability into the hands of warfighters faster.”

About Fleet Readiness Center Southeast

Fleet Readiness Center Southeast (FRCSE) is Northeast Florida and Southeast Georgia’s largest maintenance, repair, overhaul and technical services provider, employing approximately 5,000 civilian, military and contract workers. The organization serves as an integral part of the greater U.S. Navy, Naval Air Systems Command, and Commander, Fleet Readiness Centers by maintaining the combat airpower for America’s military forces.