



FRCSE technician's creation opens door for T-44 program



Sheet metal mechanic Vinny Yanuchi works on a door for a T-44 Pegasus at Fleet Readiness Center Southeast (FRCSE) using Randy Meeker's new rack to hold it. Meeker, an FRCSE tooling designer, designed and built the fixture from scratch to help make the artisan's job more efficient and exact. (U.S. Navy Photo/Released)

Jacksonville, Fla. – The latest advances in technology converged with creativity and old fashioned experience to solve an engineering dilemma at Fleet Readiness Center Southeast (FRCSE) recently.

Randy Meeker, a former FRCSE sheet metal mechanic and current tooling designer at the facility, was presented with a problem: Devise a machine that can hold and rotate doors for the T-44 Pegasus aircraft so artisans can repair them correctly.

“The artisans were disassembling the doors, which are curved, on a flat bench,” Meeker said. “So, of course, that didn’t hold the doors still while they worked on them.

“Also, the more they worked on the doors – taking structures off and on – the flatter they became.”

The artisans did their best. They flipped the bench over, and added padding to the feet. Yet there was still a problem.

Every door, though they come off the assembly line the same, develops its own unique



August 5, 2016

FRCSE technician's creation opens door for T-44 program

bends and contours over the course of years of flight and maintenance.

After being refurbished using the old bench, the curvature would change – if only slightly.

“When they put them back on the airplane, the seal wouldn’t fit exactly right and they couldn’t get the air pressure right inside the airplane,” Meeker said.

No longer.

“With the old fixture, the doors would flop and twist on me,” said sheet metal mechanic Vinny Yanuchi of M2 Services Corporation. “With this, I’m able to get a door and be absolutely certain I’m giving it back to them exactly the same way it came to me.”

Meeker asked FRCSE personnel to find him the perfect T-44 door. From that, he took measurements and formed a plastic brace and put it on an aluminum frame. Then, the facility’s 3-D printer took over to form the skin clamps and knobs for the new fixture.

“I hit print, went home, came back the next day and it was done at 10 a.m.,” Meeker said. “This is not a prototype piece; it’s actually a structure to being used to work on the doors.”

Now, artisans like Yanuchi can flip and turn the doors without ever picking them up or taking them off the fixture.

“It’s sure made my life a lot easier,” Yanuchi said.



Fleet Readiness Center Southeast tooling designer Randy Meeker points to the plastic braces he designed to go into his new creation: a pivoting rack to securely hold T-44 Pegasus doors while artisans work on them. (U.S. Navy Photo/Released)



FRCSE technician's creation opens door for T-44 program



Sheet metal mechanic Vinny Yanuchi, left, an M2 Services Corporation employee, looks over a new rack built by Fleet Readiness Center Southeast tooling designer Randy Meeker, right. The new rack allows artisans to safely and securely work on the doors. (U.S. Navy Photo/Released)