

## Custom tool to save weeks in F-35B test and evaluation

---

NAVAL AIR SYSTEMS COMMAND, PATUXENT RIVER, Md. – Teamwork and ingenuity will save valuable time and money for the F-35B Joint Strike Fighter program undergoing test and evaluation.

Engineers and artisans from the Naval Air Warfare Center Aircraft Division (NAWCAD) and industry collaborated in the design and fabrication of a custom-made tool to aid F-35B mechanics in performing maintenance on a critical part of the F-35B three-bearing swivel module used for short take-off and vertical landing (STOVL) operations.

The yet-to-be-named tool is used to support the weight of the number one “fuelhydraulic” actuator, which uses pressurized fuel to accomplish movement of the main thrust vectoring nozzle. It was first used to change an actuator April 2.

Designed specifically for this purpose, the tool was created using computer-aided design by the NAWCAD Aircraft Prototype Systems Division, which provides aircraft test and evaluation programs an organic capacity to make precision-cut parts.

“I’m very proud of this team,” said Rear Adm. Randy Mahr, NAWCAD commander. “This special tool will not only speed development of the Lightning II but also pay big dividends after the aircraft is delivered to the Fleet.”

“This is a big deal, because to change out the actuator would normally require an engine rollback to access the actuator due to the tight clearances inside the engine bay,” said Jim McClendon, Lockheed Martin site director vice president. “Now, this maintenance time has improved by approximately one week – good for flight testing, and better for our warfighter. This is a great demonstration of teamwork and innovation by the entire government, Lockheed Martin and Pratt & Whitney team.”

The tool will continue to be optimized and may result in a patent as well as become part of the support equipment for future use in the fleet.

“The team’s innovative development of this new tool will save significant time and money for the F-35 program and our customers,” said Tyler Evans, director of F135 Programs, Pratt & Whitney. “This is a tremendous accomplishment the entire F-35 team can be proud of.”

The F-35B Joint Strike Fighter is undergoing test and evaluation at Naval Air Station Patuxent River, Md. Current testing is focused on preparations for shipboard testing at sea this fall.

May 6, 2011

## Custom tool to save weeks in F-35B test and evaluation

---

To see more about this accomplishment, visit:

<http://www.youtube.com/watch?v=-oZew4dSOLU>