

# RTX's Pratt & Whitney completes F135 Engine Core Upgrade preliminary design review



Caption: PACIFIC OCEAN (June 7, 2024) An F-35C Lightning II, assigned to Strike Fighter Squadron (VMFA) 314, launches from the flight deck of the Nimitz-class aircraft carrier USS Abraham Lincoln (CVN 72). (U.S. Navy photo by MCSA Mario Castro Gamez)

*Program remains on track to fully enable the F-35's future needs*

July 15, 2024

EAST HARTFORD, Conn., July 15, 2024 /PRNewswire/ – Pratt & Whitney, an RTX (NYSE: RTX) business, completed the F135 Engine Core Upgrade's (ECU) preliminary design review (PDR), affirming the ECU's design is on schedule and exceeding expectations. The upgrade will deliver increased engine durability and performance that will fully enable Block 4 and beyond capabilities for all three variants of the F-35 worldwide.

During the PDR, Pratt & Whitney and the F-35 Joint Program Office evaluated the ECU's design changes and propulsion technologies, both of which are needed to restore full life to the engine and provide improved performance to enable next generation weapons and sensors.

"Pratt & Whitney is upgrading the F135 engine with technology from multiple development programs to deliver increased capability and performance for the warfighter," said Chris Johnson, vice president of Pratt & Whitney's F135

program. "Upgrading the F-35's propulsion system to ECU is a critical step toward ensuring the F-35 remains the world's premier air dominance fighter."

Earlier this year, the U.S. Department of Defense formally selected the F135 ECU as the only modernization solution for the F-35's propulsion system because it [assessed](#) that Pratt & Whitney alone "has the experience, special skills, proprietary technical documentation, software/algorithms, and technical expertise required to furnish the supplies and services."

"The PDR was a successful first step toward the capability the ECU will provide in meeting the challenging performance and durability requirements of the F135," said U.S. Navy Capt. Mitchell Grant, F-35 propulsion program manager. "The ECU will ensure that the U.S. and our international partners remain well positioned to outpace adversary threats."

To date, Pratt & Whitney has delivered more than 1,200 F135 production engines, with more than 860,000 engine flight hours recorded. The F135 ECU will be incorporated into F-35s at the point of production or retrofitted at one of the multiple F135 depot sustainment facilities around the world.