

**GO BEYOND** 

F135

# ENGINE CORE UPGRADE

# **ENGINE CORE UPGRADE (ECU)**

## **THE WORLD'S MOST ADVANCED FIGHTER ENGINE** Proven Propulsion Designed to Enable Block 4 Capabilities and Beyond

The F135 Engine Core Upgrade (ECU) delivers the durability and performance needed to enable Block 4 capabilities and beyond. Easily retrofittable in all F-35 variants, ECU is the only engine that offers all global F-35 operators the increased power and thermal management capacity needed to enable next generation weapons systems and sensors. Utilizing proven technologies developed for advanced programs, ECU ensures the F-35 Lightning II remains the most advanced fighter for decades to come.



**PROVEN TECHNOLOGY** 

Design based upon demonstrated and proven advanced technologies.



**VARIANT COMMON SOLUTION** Maintains the current F135 architecture while focusing on engineering changes to the power module and gearbox to accelerate modernization and minimize risk.



### **MINIMIZES COST AND ACCELERATES MODERNIZATION** with 60-70% commonality with the F135.

"DROP-IN"

Retrofits allow for upgrades to already fielded and new production F-35s.



### **ENABLES BLOCK 4 AND BEYOND**

Increased bleed air, horsepower and heat rejection enables Block 4 and beyond power and thermal needs.



### **RESTORES FULL LIFE**

Upgrades address "over bleeding" of F135 and higher mission demands to avoid looming lifecycle cost growth.



### DESIGNING TO MAXIMIZE AIR VEHICLE POWER AND THERMAL CAPACITY

ECU will be fully compatible with any PTMS solution delivering up to 80kW. When combined with a new PTMS, it will also provide additional fuel burn and thrust benefits.

# **DESIGNED FOR INTEGRATION WITH ALL F-35S FOR MEANINGFUL OPERATIONAL CAPABILITY**

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