GO BEYOND

F135

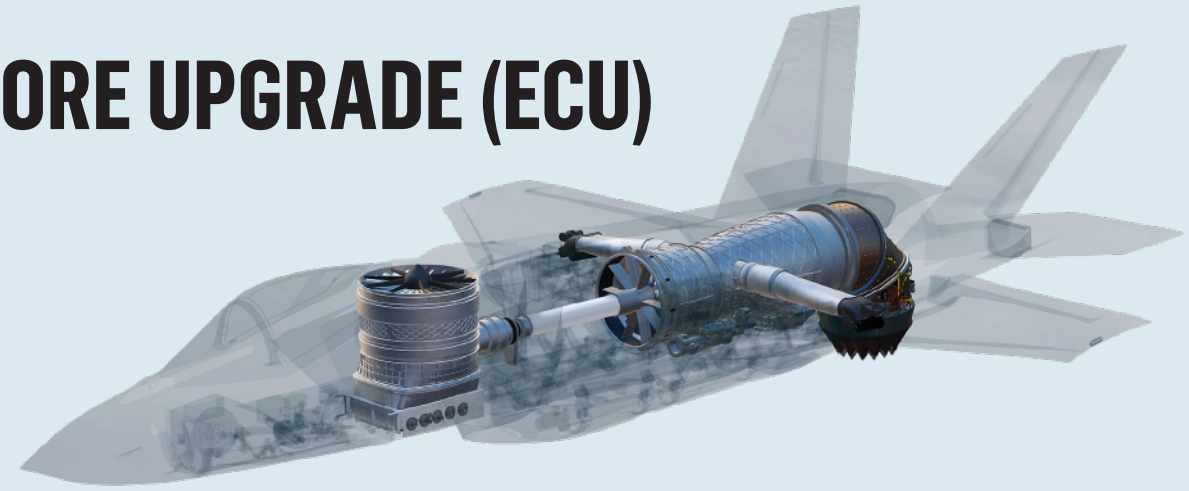
MILITARY ENGINES

ENGINE CORE UPGRADE

Image: DVIDS Kyra Helwick

ENGINE CORE UPGRADE (ECU)

F135
STOVL



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.

INCREASED VERTICAL LIFT THRUST

Significant growth in vertical lift thrust, supporting additional weapon system capabilities and operational requirements.

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