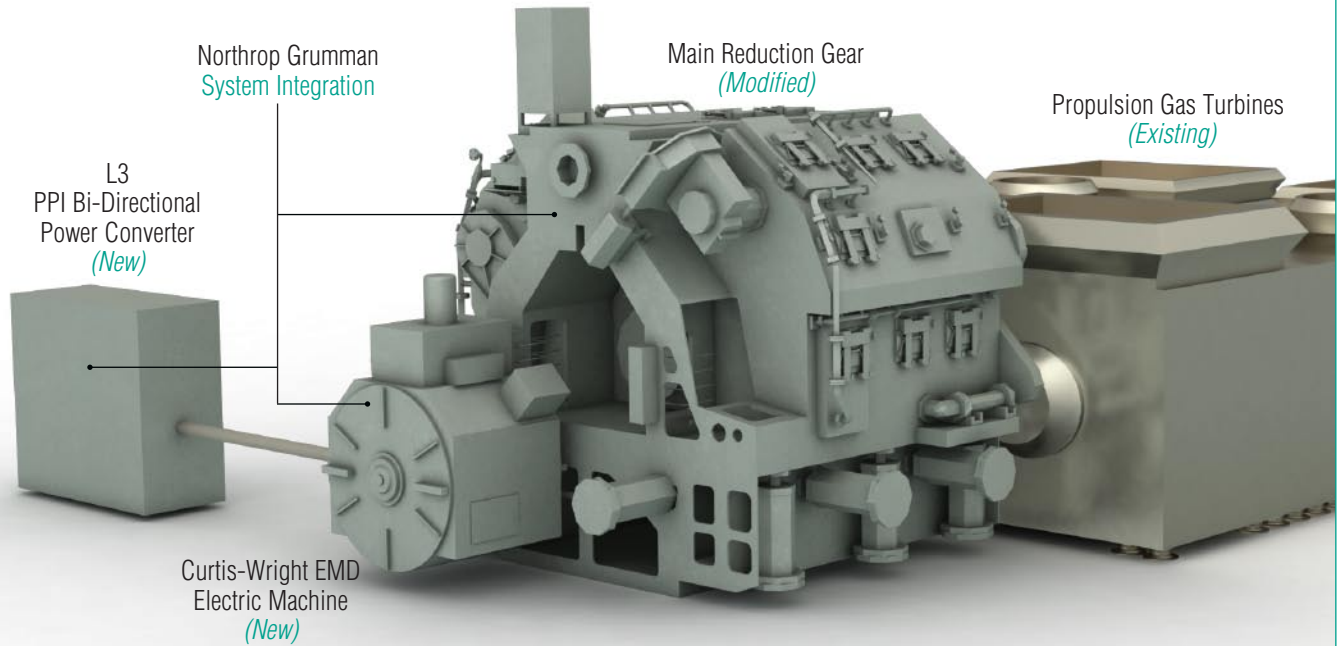


Advanced Hybrid Drive System (AHDS) for Surface Combatants

Greater Capability at a Lower Cost



Northrop Grumman provides System Integration for the Advanced Hybrid Drive System by adding an electric machine and a bi-directional power converter to the ship's existing propulsion and power generation systems.

How the Advanced Hybrid Drive System works

AHDS interconnects the existing mechanical propulsion and power generation systems by adding an electric machine and a bi-directional power converter. The linked system operates in two modes. The first, Electric Propulsion System (EPS), propels the ship using power from the Ship's Service Gas Turbine Generators. At higher speeds, the ship operates in Propulsion-Derived Ship's Service (PDSS) Power Generation mode, in which excess power from the Gas Turbine Propulsion Modules can be directed to Combat Systems Power and other Ship's Loads.

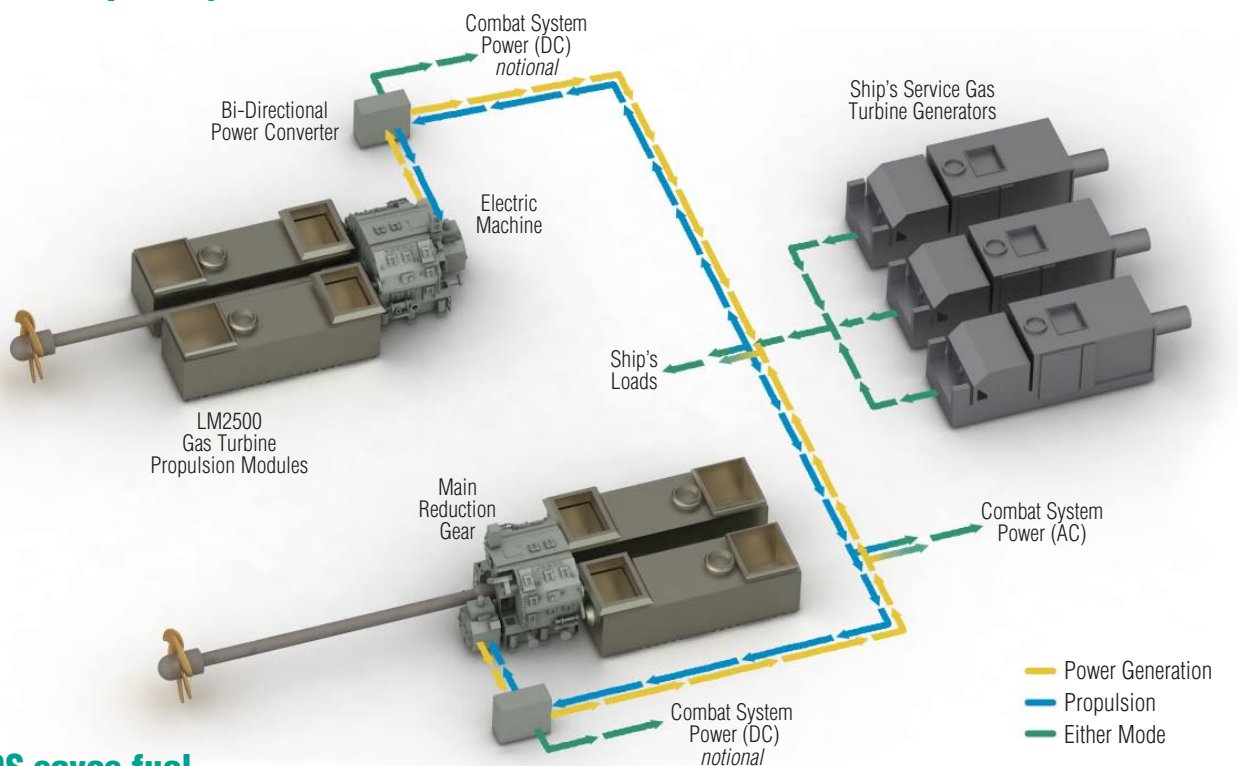
AHDS Team

Northrop Grumman Electronic Systems (Marine Systems), has joined with L3 Power Paragon and Curtiss-Wright Electro-Mechanical Division to develop the AHDS.



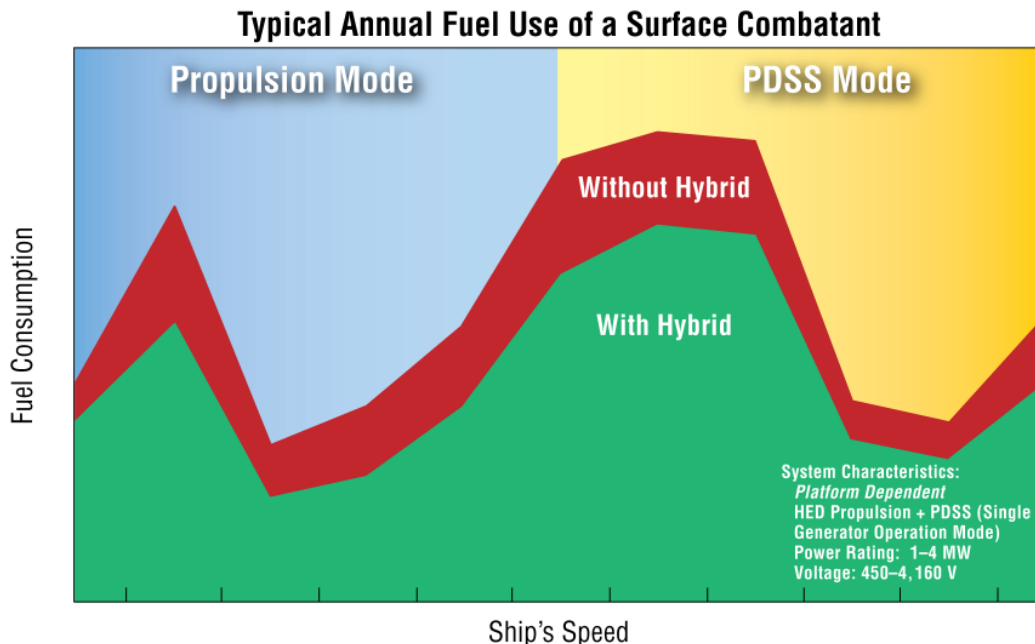
Advanced Hybrid Drive System (AHDS)

Greater Capability at a Lower Cost



AHDS saves fuel

By operating fewer gas turbines, and doing so more efficiently, the Advanced Hybrid Drive System saves fuel at all speeds. The system saves the most fuel at the lower speeds at which ships spend most of their time cruising.



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