RADAR PROCESSING / LEONARDO

DELIVERING AN ADVANCED RADAR SYSTEM THAT IMPROVES AIRCRAFT TARGETING ACCURACY AND PRECISION

Leonardo is a leader in the aerospace, defense and security industry that develops some of the most advanced technology in the world. The Eurofighter Typhoon is a highly capable combat aircraft flown by the UK's Royal Air Force and other European nations.

THE NEED FOR SMARTER TECHNOLOGY

The Eurofighter Typhoon was originally delivered with a mechanical scanned radar, which is now technically inferior to the actively electronically scanned array (AESA) radars found on modern aircraft. Together with BAE, Leonardo set out to build an AESA radar system for the RAF's Typhoons that would allow pilots to locate, identify and suppress adversary defense systems using high-powered, focused jamming and improve aircraft weapon targeting accuracy, range and precision, transforming the UK's current air power capability.

AGILE DEVELOPMENT WITH A RECONFIGURABLE PLATFORM

Leonardo tapped into the end-to-end Mercury Processing Platform to speed the development of the most powerful version of the European Common Radar System's AESA radar, the Mk2. In particular, Leonardo was able to leverage the performance of commercial technology from Intel with the safety and software-defined capabilities of Mercury. In addition, Mercury's proven safety-critical design expertise helped identify the best approach to combining software and hardware in a scalable, flight-ready, high-performance mission computer.

CONNECTING COMMERCIAL TO DEFENSE TO PROTECT AND SECURE THE SKIES

The Mercury Processing Platform connects commercial innovation to defense, giving Leonardo the ability to rapidly and affordably develop a critical radar system that will enable warfare (EW) capabilities for the RAF's fourth- and fifth-generation fighters. Other nations are also looking to upgrade and extend the abilities of Typhoon aircraft, with Italy expressing interest in the Leonardo-BAE ECRS Mk2 development. Prototypes are scheduled to be delivered to BAE by the end of 2022.