



Leonardo UK's ECRS Mk2 design adopts repositioner for broader coverage

UK funds Typhoon radar upgrade

Active electronically scanned array will be ready for service in 2025, providing RAF with jamming and attack capability

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The UK Royal Air Force (RAF) is on track to fit its newest Eurofighter Typhoons with active electronically scanned array (AESA) sensors with electronic attack functionality, which the system's developer claims will be "the world's most capable fighter radar".

BAE Systems will lead work to integrate the Leonardo UK-developed European Common Radar System (ECRS) Mk2 sensor, with flight-test activities to commence in 2022 and initial operational capability targeted for 2025.

Under a £317 million (\$420 million) contract, an undisclosed number of radars will be delivered to support test and evaluation activities. The deal also covers several pre-production examples, and long-lead items to support a series procurement.

Previously also referred to as

"Radar 2", the sensor is likely to equip the RAF's 40 Tranche 3-standard Typhoons, but also could be integrated with the service's Tranche 2-version fighters.

The ECRS Mk2 array will be able to simultaneously perform air-to-air and air-to-surface monitoring, along with wide-band electronic attack and high-power jamming. This will enable the Typhoon to operate independently in complex environments, and support the UK's Lockheed Martin F-35s and future combat air system elements, including unmanned air vehicles.

"We are operating in an increasingly complex and congested environment - we need the systems with the capacity and bandwidth to deal with that," says BAE.

The design uses "significantly more transmit-receive elements than other radars", Leonardo says, and both gallium arsenide and gallium nitride semiconductors.

The array's use of a wide field-of-regard repositioner will enable

a pilot to "prosecute targets at greater range and to a greater volume", says Tony Innes, Leonardo vice-president sales, radar and advanced targeting.

The Typhoon will also receive a replacement radome suitable for the ECRS Mk2's higher power output than the current mechanically-scanned Euroradar Captor M.

Ground-based testing of the sensor is under way at BAE's Warton site in Lancashire and Leonardo's facility in Edinburgh, Scotland.

Eurofighter partner nations Germany and Spain earlier this year ordered ECRS Mk1 arrays for their fleets, respectively from Hensoldt and Indra. Fellow operator Italy, which is also a partner in the UK's Tempest future combat air system project, has yet to detail its plans for a radar update.

BAE confirms that the ECRS Mk2 is being offered as part of a UK-led campaign promoting the Typhoon for Finland's HX replacement fighter requirement. ▀



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