LEONARDO ELECTRONICS

ECRS MK2

EUROPEAN COMMON RADAR SYSTEM MK2 – MULTI FUNCTION ARRAY

ECRS Mk2 is a multi-function Active Electronically Scanned Array (AESA) designed and built by Leonardo to provide Eurofighter Typhoons with a world-leading Electronic Warfare (EW) and Electronic Attack (EA) capability fully integrated with optimised and enhanced traditional radar functions.

The system offers enhanced traditional radar modes providing Eurofighter Typhoon with increased situational awareness and lethality in the most complex and hostile future electromagnetic environments. The EW and EA functions increase threat awareness and provide operators with the ability to locate, identify and jam enemy radio frequency emitting surface-to-air systems, providing enhanced ownership and third-party protection whilst conducting a SEAD (Suppression of Enemy Air Defences) mission.

The system has been developed using experience gained from the development and production of ECRS Mk0, Raven and Captor M fire control radar systems, and has been specifically designed to meet the UK MOD's requirements for its Eurofighter Typhoon fleet.

The UK will replace Captor M systems in their Tranche 3 aircraft initially to provide the platform with a world leading Radar and EW capability for the future battlespace.

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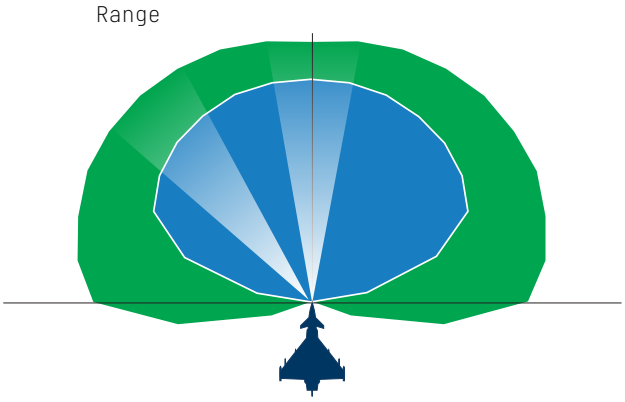
KEY BENEFITS

- Enhanced traditional radar modes and functions
- SEAD capability - ability to locate, identify and suppress enemy air defences
- Greater freedom of manoeuvre whilst conducting missions
- Simultaneous operation of air-to-air, air-to-ground and EW functions
- Extended range missile guidance
- High availability due to graceful degradation and increased redundancy

KEY FEATURES

MK0 CAPABILITIES PLUS:

- Increased power through high number of TRMs
- Rotating joint repositioner for maximum power positioning across the Field-of-Regard (FoR)
- Expanded FoR compared to fixed plate AESA radars
- Electronic warfare
- Wide band electronic attack
- Enhanced multi-channel receiver and processor
- Combat identification capability
- Mission data loadable for Radar and EW tasks
- Mission data programmable processor with increased capacity



Wide Field of Regard ECRS AESA Radar

Enables optimised Max-Power on target across the WFoR

Typical Size Fixed Plate AESA Radar

INTEGRATION

ECRS Mk2 is due to be in service with UK RAF Typhoons towards the end of the decade. ECRS Mk2 can be retro fitted to Tranche 2 & 3 and new EF aircraft. ECRS Mk2 has undergone multiple installation trials, functional and performance tests within a synthetic, roof lab and weapon system environment and has progressed rapidly to having flown multiple missions in a Typhoon aircraft conducting initial flight tests with outstanding results.

TECHNICAL SPECIFICATION

System Name	European Common Radar System Mark 2
Platform	Eurofighter Typhoon
Previous Names	Radar 2
Related Systems	CAPTOR M, ECRS Mk0, ECRS Mk1, Tempest, Raven
System Type	MRFS - Multi-functional RF System
In-service date	Currently in development
Customers	UK
Compatibility	Tranche 2,3, Future Tranche
EF Software Standard	P4 and future software standards

CAPABILITIES

- Air-to-air search, track, target
- Weapon support
- Electronic warfare
- Electronic attack
- Target identification
- Air-to-surface mapping
- Air-to-surface targeting
- Enhanced DASS integration
- Enhanced EPM

For more information:
infomarketing@leonardo.com

Leonardo Electronics
One Eagle Place - London - SW1Y 6AF - United Kingdom
T +44 (0)20 7340 6100

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