

LEONARDO ELECTRONICS

ECRS MK0

EUROPEAN COMMON RADAR SYSTEM MK0



ECRS Mk0 is designed and built by Leonardo UK as part of the EuroRadar consortium, incorporating knowledge and experience gained through the development of CAPTOR-M and technical demonstrator programmes. The system, which is already flying operationally within Qatar and Kuwait Air Forces, is Eurofighter (EF) Typhoon's first AESA Radar.

ECRS Mk0 operates an innovative mechanical re-positioner to extend the systems field of regard (FOR) by mechanically moving a fixed AESA's field of view. This provides Eurofighter unparalleled situational awareness and freedom of manoeuvre whilst conducting core air-to-air and air-to-surface roles.

The large number of Transmit Receive Modules (TRM) and high power output, made possible by Eurofighters design, provides a step change in AESA functionality and performance.

The increase in detection performance of ECRS Mk0 provides capability against the most difficult of target sets within complex electromagnetic environments.

Alongside tenacious air-air detection, tracking and engagement, supporting guidance of both AMRAAM and METEOR missile systems, ECRS Mk0 has air-surface modes including ground moving target modes, surface mapping and sea surface search (SSS).

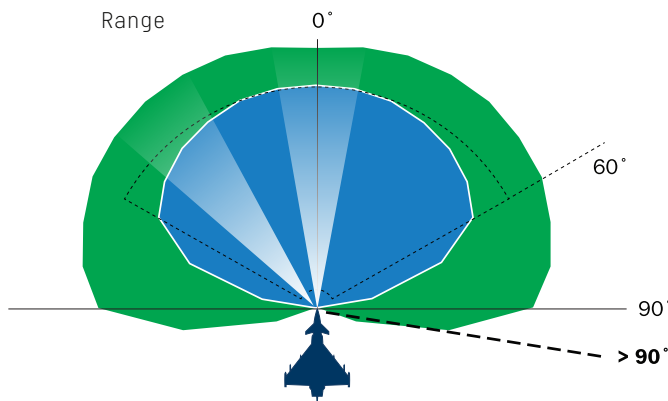
ECRS Mk0 capabilities perfectly compliment all elements of EF weapon system and provide an excellent baseline for future upgrades. The increased performance, reliance and reliability ECRS Mk0 provides further improves Eurofighter Typhoon's effectiveness and superiority over current and future threats.

KEY BENEFITS

- Enhanced traditional radar modes and functions with excellent long range detection
- Greater freedom of manoeuvre whilst conducting missions
- Excellent capability against the most difficult targets
- Robust operation in complex electromagnetic environments
- Simultaneous operation of air-to-air and air-to-ground functionality
- High situational awareness
- High availability due to graceful degradation and increased redundancy

KEY FEATURES

- Large and high power AESA aperture – high number of TRMs
- Mechanical re-positioner for maximum power positioning across Field of Regard (FoR)
- Wide FoR – 50% greater than traditional AESA systems
- Core air-to-air and air-to-surface modes including SSS and ground mapping
- METEOR and AMRAAM weapon support
- Smart radar resource management through optimised HMI
- Combat identification capability



- Wide Field of Regard ECRS AESA Radar
Enables optimised Max-Power on target across the WFor
- Typical Size Fixed Plate AESA Radar

INTEGRATION

ECRS Mk0 is currently in service with Qatar and Kuwait air forces. It can be integrated onto both EF Tranche 2 & 3 aircraft as well as future Tranches. The system has an established and ongoing upgrade programme.

TECHNICAL SPECIFICATION

System Name	European Common Radar System Mark 0
Platform	Eurofighter Typhoon
Previous Names	CAPTOR-E, E-Scan, Radar 1
Related Systems	CAPTOR M, ECRS Mk1, ECRS Mk2
System Type	Fire Control Radar
Designed	2014 – 2021
Customers	Qatar, Kuwait
Compatible Tranche	Tranche 2,3, Future Tranche
EF Software Standard	P3E, P4 and future software standards

CAPABILITIES

- Air-to-air search, track, target
- Weapon support
- Target Identification
- Air-to-surface mapping
- Air-to-surface targeting



For more information:
infomarketing@leonardo.com

Leonardo Electronics
Sigma House-Christopher Martin Road-Basildon-Essex SS14 3EL -United Kingdom
T +44 (0) 1268 522822

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