



PRESS RELEASE

London, 11 September 2019

UK Ministry of Defence orders Leonardo/Thales protection system for RAF Shadow ISTAR fleet

The UK Ministry of Defence has contracted Leonardo and Thales, under a single source procurement, to deliver an integrated UK Defensive Aids System (DAS).

The procurement will equip the RAF's fleet of eight Shadow R1 intelligence-gathering aircraft, providing an advanced DAS which will protect the aircraft against latest-generation of Infra-Red (heat seeking) missiles.

Designed, developed and manufactured in the UK, the system provides a sovereign capability which will be able to evolve in anticipation of changing threats to air platforms.

The contract will be delivered by a combined MOD/Leonardo/Thales team under a Leonardo prime systems integration contract, with the equipment being integrated onto the platform by Raytheon UK. Initial Operating Capability is targeted for early 2021. The system consists of the following subsystems:

- Thales "Elix-IR" Threat Warner
- Leonardo DAS Controller
- Leonardo "Miysis" Directed Infra-Red Counter Measure (DIRCM)
- Thales "Vicon" Countermeasures Dispensing System

The single source selection by the MOD follows the recent SALT III international trials hosted by the Swedish Defence Materiel Administration in Sweden. There, the integrated Miysis/Elix-IR system, using a jamming waveform developed by the UK MOD's Defence Science and Technology Laboratory, proved its ability to defeat Infra-Red missiles in live fire exercises.

How the system works:

The integrated DAS brings together world-class capabilities in threat warning, self-protection co-ordination, countermeasures dispensing and in DIRCM. At the heart of the system, the DAS Controller is able to assess multiple threats to the aircraft and prioritise the appropriate response using the Countermeasure Dispensing System (CMDS) and Miysis DIRCM. Elix-IR is constantly on the lookout for missile and gunfire threats, providing long range, rapid and accurately-located alerts when they occur. The dual-head fit of the Miysis DIRCM provides 360 degree protection and the ability to defeat multiple threats simultaneously by accurately directing a jamming laser onto the missile's seeker, confusing its guidance system and steering the missile away from the aircraft. The integrated and optimised threat-warning/threat-defeat chain ensures that sequential incoming missiles are thwarted quickly and effectively.

Shadow:

The RAF's fleet of Shadow aircraft, which are based on the King Air 350CER, are operated by 14 Squadron out of RAF Waddington. Because of the ISR role of the aircraft, it may be required to fly through hostile airspace, necessitating protection from enemy forces. A particularly deadly and prevalent threat are heat-seeking, Man-Portable Air-Defence Systems (MANPADS), which are widely employed around the world. The Shadow's new defensive aids suite will effectively counter this threat, being able to rapidly defeat incoming missiles.

About Leonardo

Leonardo, a global high-technology company, is among the top ten world players in Aerospace, Defence and Security and Italy's main industrial company. Organized into five business divisions, Leonardo has a significant industrial presence in Italy, the United Kingdom, Poland and the USA, where it also operates through subsidiaries such as Leonardo DRS (defense electronics), and joint ventures and partnerships: ATR, MBDA, Telespazio, Thales Alenia Space and Avio. Leonardo competes in the most important international markets by leveraging its areas of technological and product leadership (Helicopters, Aircraft, Aerostructures, Electronics, Cyber Security and Space). Listed on the Milan Stock Exchange (LDO), in 2018 Leonardo recorded consolidated revenues of €12.2 billion and invested €1.4 billion in Research and Development. The Group has been part of the Dow Jones Sustainability Index since 2010. <http://www.leonardocompany.com>

>For the RAF Shadow, Leonardo will draw on its experience providing protective systems for the UK's Eurofighter Typhoon and AW159 Wildcat, AW101 Merlin, Puma and Chinook helicopter fleets. The Company was also contracted in April to provide a UK sovereign defensive aids suite for the British Army's new fleet of Apache AH-64E helicopters.

>While being smaller, lighter and drawing less power than other DIRCM systems on the market, the **Miysis DIRCM** still offers the full spherical coverage required to counter advanced threats. Its Laser Pointer Tracker offers sophisticated tracking to counter long range threats and exceptional response speed to counter short range threats. A multi-band IRCM can defeat even advanced threats. Miysis has been selected by customers in Canada and the Middle East.

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About Thales

Thales is a global technology leader for the Aerospace, Transport, Defence and Security markets. With 62,000 employees in 56 countries, Thales reported sales of €14 billion in 2016. With over 22,000 engineers and researchers, Thales has a unique capability to design and deploy equipment, systems and services to meet the most complex security requirements. Its exceptional international footprint allows it to work closely with its customers all over the world. <https://www.thalesgroup.com>

> **Elix-IR™** is a passive multi-function Threat Warning System that uses single wide spectrum colour Infra-Red sensing technology to deliver simultaneous and unimpeded Missile Approach Warning, Hostile Fire Indication and Situational Awareness from a single sensor system to increase overall platform survivability and help to mitigate the 'Risk to Life'. Elix-IR™ is an ITAR free UK sovereign capability, developed in collaboration with the UK MOD that ensures Freedom of Action that assures a rapid and timely response to countering evolving threats and supporting new theatres of operation. Designed from the outset to provide the capabilities required to support a DIRCM and output data in support of off-board countermeasures, such as Smart Stores, it enables greater exploitation and utilisation of platform capabilities that support broader operational employment and increased mission success rates.

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