



PRESS RELEASE

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Leonardo and Thales to demonstrate their next generation Threat Warner and Directed Infra-Red Counter Measure protection system with the UK Ministry of Defence

- Thales's **Elix-IR™** next generation Threat Warner and Leonardo's **Miysis** Directed Infra-Red Countermeasure are being integrated into an advanced, end-to-end missile warning and protection system
- The UK Ministry of Defence is contracting the two companies to demonstrate the integrated system in early 2018
- The UK-manufactured, lightweight system can be fitted to both military and civil platforms ranging from small helicopters to large transports/VIP platforms and will be readily exportable around the world.

Leonardo and Thales are being contracted by the UK Ministry of Defence (MoD)'s Defence Science and Technology Laboratory (Dstl) to demonstrate their world-leading Infra-Red (IR) protection system in trials in early 2018. The companies are currently engaged in development activities to bring together two of their most advanced products, Thales's 'Elix-IR' Threat Warning System and Leonardo's 'Miysis' Directed Infra-Red Counter-Measure (DIRCM) system. Together, the systems will offer an end-to-end protection system for military and civil platforms, ranging from small helicopters to large troop transports/VIP platforms, against threatening missiles.

Leonardo and Thales are currently integrating the two systems so that hand-over between threat-warning and threat-defeat is optimised to defeat the threat as quickly as possible. In practice, this will mean that when a threatening missile is fired at a platform equipped with the combined solution, the Elix-IR system will detect, track, classify and declare the missile as a threat to platform and rapidly pass an alert over to the Miysis system. Miysis will then track the incoming threat and accurately direct a high-energy laser onto the missile's seeker, confusing its guidance system and quickly steering the missile away from the platform. Elix-IR will continue to track the threatening missile throughout its engagement by Miysis.

Threats detected and defeated by the combined system include the inexpensive and widely-used heat-seeking missiles known as Man-Portable Air Defence Systems, or MANPADS, as well as more advanced and emerging threats that are harder to detect and against which flare countermeasures alone are increasingly ineffective.

Both Elix-IR and Miysis have been extensively tested and their capabilities individually proven on live trials. Leonardo's Miysis DIRCM was demonstrated during the NATO Trial EMBOW XIV in 2014 where it recorded a 100% success record against generation 1, 2 and 3 MANPADS using NATO jam codes. Flight Trials at Pendine Ranges and previous static trials successfully demonstrated the performance of Thales's Elix-IR in complex warfighting environments, detecting all threats presented during the trials, including some that had challenged previous hostile fire indicator systems.

Under the contracts, funding from the UK Ministry of Defence will support lab-based and field trials of the integrated system in early 2018 and help evaluate its use for current and future UK air platform protection. The end result will be a highly capable, cost-effective and proven UK system that can automatically detect and defeat incoming threats, keeping crews safe in hostile environments.

Elix-IR and Miysis are designed and manufactured in the UK and so are readily exportable. While Thales and Leonardo will continue to market the systems individually, they will also work together to offer the integrated protection capability around the world when it is considered the best solution for customer requirements.

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 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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About Leonardo

Leonardo is among the top ten global players in Aerospace, Defence and Security and Italy's main industrial company. As a single entity from January 2016, organised into seven business divisions (Helicopters; Aircraft; Aero-structures; Airborne & Space Systems; Land & Naval Defence Electronics; Defence Systems; Security & Information Systems), Leonardo operates in the most competitive international markets by leveraging its areas of technology and product leadership. Listed on the Milan Stock Exchange (LDO), at 31 December 2016 Leonardo recorded consolidated revenues of 12 billion Euros and has a significant industrial presence in Italy, the UK, the U.S. and Poland. <http://www.leonardocompany.com>

>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.

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Dstl

The Defence Science and Technology Laboratory (Dstl) works to apply cutting-edge science and technology (S&T) to keep UK Armed Forces, and the British people, protected from harm. Dstl is an Executive Agency of the MOD, run along commercial lines. It is one of the principal government organisations dedicated to S&T in the defence and security field, with four sites; at Porton Down, near Salisbury, Portsmouth West, near Portsmouth, Fort Halstead, near Sevenoaks and Alverstoke near Gosport. Dstl works with a wide range of partners and suppliers in industry, in academia and overseas.

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