

Leonardo launches MAIR, a latest-generation threat warner which provides spherical Infra-Red (IR) protection

- **MAIR provides effective missile warning as well as Hostile Fire Indication (HFI), spherical day and night imaging and full Infra-Red Search and Track (IRST) functionality**
- **The system is lightweight and can be installed on a wide range of platforms such as combat aircraft and helicopters, surveillance and transport platforms and business jets**
- **Leonardo's IRST technology, which underpins the MAIR system, is operationally proven on-board the Eurofighter Typhoon and is on-board the Saab Gripen E**

Rome, 14 June 2019 - At the Paris Air Show (17-23 June) Leonardo will, for the first time, exhibit its brand-new Multiple Aperture Infra-Red (MAIR) missile warning system, which offers enhanced situational awareness and survivability for aircraft crews. MAIR uses multiple distributed cameras for complete spherical coverage around an aircraft, providing a high probability of detection and early warning of incoming missiles with a very low false alarm rate, even in heavily cluttered airspace. The design of MAIR draws on Leonardo's years of experience in providing infrared search and track (IRST) technology for fighter aircraft such as the Gripen E (which carries Leonardo's Skyward-G IRST) and the Eurofighter Typhoon (which is equipped with the operationally-proven PIRATE IRST). As well as missile warning, MAIR provides Hostile Fire Indication (HFI), spherical day and night imaging and full IRST functionality.

The primary role of MAIR is to detect and warn of incoming missiles. As part of a defensive aids suite, MAIR can significantly improve the survivability of crews by detecting, tracking, classifying and declaring that an incoming missile is a threat and then rapidly cueing a countermeasure system (such as Leonardo's Miysis Directed InfraRed CounterMeasure (DIRCM)) to track and defeat the threat. MAIR's highly-sensitive IR technology detects threats at a very early stage, providing a longer timeframe in which to defeat them.

MAIR comprises a number of high-resolution infra-red (IR) cameras installed around the aircraft, which gather footage, and a processor which employs Leonardo's proprietary processing algorithms to turn the raw IR pictures into useful detection and tracking data, while ignoring background clutter. This ability to discriminate clearly between threats and irrelevant noise is a unique strength of Leonardo, which has refined its IRST algorithms over years of operational service. The Company's Skyward-G IRST was first successfully tested in 2013 and Leonardo has, over a number of years, continuously improved the target identification and tracking performance.

MAIR is lightweight and can be installed on a wide range of fixed and rotary-wing platforms such as combat aircraft, and helicopters, surveillance and transport platforms and business jets. The system was successfully tested during 2018's Surface to Air Launch Trials (Salt III) and is expected to be ready for full production in 2020.

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.