

Leonardo-Finmeccanica to study future Typhoon friend-or-foe recognition capability with new UK MoD technology programme

- **The Eurofighter Typhoon's IFF (Identification, friend or foe) system allows it to distinguish between friendly and potentially hostile aircraft**
- **A leader in IFF technology, Leonardo-Finmeccanica provides the latest such equipment for major platforms worldwide including the Saab Gripen E**
- **An electronically-scanning IFF system will provide additional combat edge for future Typhoon pilots**

Farnborough, 12 July 2016 – Work by Leonardo-Finmeccanica is underway on a new Technology Demonstrator Programme (TDP) with the UK Ministry of Defence regarding the Eurofighter Typhoon's IFF (Identification Friend or Foe) system. The TDP will study the benefits for Typhoon of a new electronically-scanning IFF system, which also meets the latest, most secure 'Mode 5' standard. The TDP will also prepare the aircraft for future technology insertion.

An IFF system provides pilots with the ability to recognise other 'friendly' vehicles and identify potential threats, as well providing their bearing and range from the aircraft. The Typhoon's current system is due for an upgrade in order to meet new civilian air traffic regulations ('Mode S') in 2017 and a new military 'Mode-5' standard in 2019. The initial phase of the TDP will prepare the Typhoon to meet these requirements.

In addition, switching to an electronically-scanning IFF system will give the Typhoon an enhanced level of operational advantage, partly via the ability of the system to interact digitally with the Typhoon's under-development E-Scan 'Captor-E' radar. For instance, the IFF's arrays will be able to look in a different direction to the Typhoon's radar, allowing the pilot to use the radar to queue-up targets for subsequent identification. The latter part of the TDP will demonstrate the combat-edge provided by a comprehensive electronically-scanning system.

Leonardo, which provides the Typhoon's existing IFF system, is conducting the TDP. In its initial phase, the programme will demonstrate the fully European-manufactured M428 compact transponder and SIT2010 crypto, which is expected to fly in the third quarter of 2016. The rest of the electronically-scanning system including the interrogator, Transmit/Receive Unit (TRU) and wing-rooted antenna arrays is to be demonstrated in-system in 2017.

The M428 transponder, SIT2010 crypto, M246 interrogator, TRU and antenna arrays are designed and developed by Leonardo. In the overall Typhoon programme, Leonardo's total industrial participation is about 36% of the programme value, which includes a share of the aircraft's structure, avionics and on-board electronics.

Note

Following the process of the reorganisation of the **Leonardo-Finmeccanica** Group's companies, it should be noted that from January 1st 2016: the "Helicopters" division has absorbed the activities of AgustaWestland; the "Aircraft" division has absorbed part of the activities of Alenia Aermacchi; the "Aero-structures" division has absorbed part of the activities of Alenia Aermacchi; the "Airborne & Space Systems" division has absorbed part of the activities of Selex ES; the "Land & Naval Defence Electronics" division has absorbed part of the activities of Selex ES; the "Security & Information Systems" division has absorbed part of the activities of Selex ES; the "Defence Systems" division has absorbed the activities of OTO Melara and WASS.

Leonardo-Finmeccanica 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 business divisions (Helicopters; Aircraft; Aero-structures; Airborne & Space Systems; Land & Naval Defence Electronics; Defence Systems; Security & Information Systems), Leonardo-Finmeccanica 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 2015 Finmeccanica recorded consolidated revenues of 13 billion Euros and has a significant industrial presence in Italy, the UK and the U.S.

Elsewhere, Leonardo has signed contracts to provide IFF systems, including the M428 transponder and SIT2010 crypto, for the Gripen E aircraft earmarked for the Air Forces of Sweden and Brazil. Leonardo is also offering the same capability to the UK MoD as part of its drive to upgrade to the new Mode 5 standard across a range of military land, sea, and air platforms.